

2020 USDA EXPLANATORY NOTES – ANIMAL AND PLANT HEALTH INSPECTION SERVICE

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AGENCY-WIDE

PURPOSE STATEMENT

The Secretary of Agriculture established the Animal and Plant Health Inspection Service (APHIS) on April 2, 1972, under the authority of Reorganization Plan No. 2 of 1953 and other authorities. The mission of the Agency is to safeguard the health, welfare, and value of American agriculture and natural resources.

Together with its stakeholders, APHIS promotes the health of animal and plant resources to facilitate their movement in the global marketplace and to ensure abundant agricultural products and services for U.S. customers. APHIS also ensures that biotechnology-derived agricultural products are safe for release in the environment. APHIS strives to assure its stakeholders that it is on guard against the introduction or re-emergence of animal and plant pests and diseases that could limit agricultural production and damage export markets. At the same time, APHIS also monitors and responds to potential acts of agricultural bio-terrorism, invasive species, diseases of wildlife and livestock, and conflicts between humans and wildlife. The Agency also helps to resolve sanitary (animal) and phytosanitary (plant) trade barriers and addresses certain issues relating to the humane treatment of animals.

APHIS' mission is carried out using three major areas of activity, as follows:

Safeguarding and Emergency Preparedness/Response

In addition to APHIS' domestic monitoring, APHIS monitors animal and plant health throughout the world and uses the information to set effective agricultural import policies to prevent the introduction of foreign animal and plant pests and diseases. APHIS and the Department of Homeland Security cooperate to ensure that these policies are enforced at U.S. ports of entry. These policies prevent the entry of many invasive pests, including crop, pollinator, woodland, and livestock pests. APHIS also develops and conducts pre-clearance programs to ensure that foreign agricultural products destined for the United States do not present a risk to U.S. agriculture. The Agency engages in cooperative programs to control pests of imminent concern to the United States and to strengthen foreign plant protection and quarantine organizations. APHIS certifies plants and plant products for export to other countries and regulates imports and exports of designated endangered plant species.

Should a pest or disease enter the United States, APHIS works cooperatively with other Federal, State, and industry partners to conduct animal and plant health monitoring programs to rapidly determine if there is a need to establish new pest or disease management programs. APHIS, in conjunction with States, industry, and other stakeholders, protects American agriculture by eradicating harmful pests and diseases or, where eradication is not feasible, by minimizing their economic impact. The Agency monitors endemic pests and diseases through surveys to detect their location and through inspection to prevent their spread into non-infested parts of the country.

The Agency maintains a cadre of trained professionals prepared to respond immediately to potential animal and plant health emergencies. Program personnel investigate reports of suspected exotic pests and diseases and take emergency action if necessary. To facilitate these efforts, APHIS develops pathway studies and thoroughly investigates outbreaks to determine the origin of animal and plant pests and diseases and the most appropriate response actions to take including the development of tools and technologies to help manage these pests. APHIS also actively engages State, Tribal, and local governments, and industries to advance their emergency preparedness and response capabilities.

Through its Wildlife Services program, APHIS develops methods to control animals and pests that are detrimental to agriculture, wildlife, and public safety. The Agency's regulatory structure brings the benefits of genetic research to the marketplace, while ensuring they do not pose a plant pest risk. APHIS also conducts diagnostic laboratory activities that support the Agency's veterinary disease prevention, detection, control, and eradication programs.

Safe Trade and International Technical Assistance

Sanitary (animal) and phytosanitary (plant) (SPS) measures implemented by U.S. trading partners can have a significant impact on market access for the United States as an exporter of agricultural products. APHIS plays a central role in resolving technical trade issues to ensure the smooth and safe movement of agricultural commodities into and out of the United States. APHIS' role is to negotiate animal and plant health certification requirements, assist U.S. exporters in meeting foreign regulatory requirements, ensure requirements are proportional to risk without being excessively restrictive, and provide any necessary technical information to support the safety of U.S. agricultural products destined for foreign markets.

APHIS helps to protect the United States from emerging animal and plant pests and diseases while meeting obligations under the World Trade Organization's SPS agreement by assisting developing countries in improving

their safeguarding systems. APHIS collaborates with other Federal agencies including the Foreign Agricultural Service, the U.S. Agency for International Development, the State Department, and the Office of the U.S. Trade Representative, to implement technical and regulatory capacity building projects with shared resources. APHIS develops and implements programs designed to identify and reduce agricultural pest and disease threats while still outside of U.S. borders, to enhance safe agricultural trade, and to strengthen emergency response preparedness.

Animal Welfare

The Agency conducts regulatory activities to ensure the humane care and treatment of certain animals and horses as required by the Animal Welfare Act of 1966 as amended (7 U.S.C. 2131-2159), and the Horse Protection Act of 1970 as amended (15 U.S.C. 1821-1831). These activities include inspection of certain establishments that handle animals intended for research, exhibition, and sale as pets, and monitoring of certain horse shows.

Statutory Authorities

APHIS operates under the following authorities:

Table APHIS-1. Statutory Authorities

Reference	Title
General:	
7 U.S.C. 1633	Talmadge-Aiken Act (cooperation with States)
7 U.S.C. 7759	User Fees (for export certification of plants)
21 U.S.C. 136-136a	User Fees
31 U.S.C. 9701	User Fees (offsetting collections and miscellaneous receipts)
7 U.S.C. 3291(a)	Authority to provide technical assistance and training
7 U.S.C. 5680	Farm Security and Rural Investment Act of 2002 (reporting on SPS issues and trade barriers)
7 U.S.C. 5925	Food, Agriculture, Conservation, and Trade Act of 1990 (authorizes funding for national honeybee pest survey)
7 U.S.C. 2279g	Marketing Services; cooperative agreements
Animal Health:	
7 U.S.C. 8301-8317	Animal Health Protection Act
49 U.S.C. 80502	28-Hour Law (feed, water, and rest for animals)
19 U.S.C. 1202, Part I, Item 100.01	Purebred animal duty-free entry
7 U.S.C. 1622	Section 203 of the Agricultural Marketing Act of 1946
7 U.S.C. 1624	Section 205 of the Agricultural Marketing Act of 1946
7 U.S.C. 398	Section 101(d) of the Organic Act of 1944
7 U.S.C. 3801-3813	Swine Health Protection Act
7 U.S.C. 851-855	Anti-hog cholera serum and hog cholera virus
7 U.S.C. 2274	Firearms (tick inspectors)
7 U.S.C. 1901 note	Transportation of Equines to Slaughter
21 U.S.C. 151-159	Virus-Serum-Toxin Act
21 U.S.C. 113a	Authority to establish research facilities for Foot-and-Mouth and other diseases
21 U.S.C. 618	Section 18 of the Federal Meat Inspection Act, as amended, as it pertains to the issuance of certificates of condition of live animals for export
7 U.S.C. 8401 and 8411	Title II, Subtitles B and C of the Public Health Security and Bioterrorism Preparedness and Response Act of 2002
7 U.S.C. 8318	Section 10504 of the Farm Security and Rural Investment Act of 2002 (training of accredited veterinarians)
Plant Health:	
7 U.S.C. 7701-7772; and 7781-7786	Plant Protection Act

Reference	Title
7 U.S.C. 1581-1610	Title III, Federal Seed Act
7 U.S.C. 2801 note; 2814	Federal Noxious Weed Act
7 U.S.C. 281-286	Honeybee Act
7 U.S.C. 7760	Terminal Inspection Act
7 U.S.C. 2279e and 2279f	Title V of the Agricultural Risk Protection Act of 2000 (penalties for interfering with inspection animals)
16 U.S.C. 1531-1544	Endangered Species Act (plants)
16 U.S.C. 3371-3378	Lacey Act (importation or shipment of injurious mammals, birds, fish)
7 U.S.C. 8401	Title II, Subtitle B of the Public Health Security and Bioterrorism Preparedness and Response Act of 2002
39 U.S.C. 3015	Alien Species Prevention and Enforcement Act of 1992
Wildlife Services:	
7 U.S.C. 8351-8354	Control of predatory and other wild animals
Animal Welfare:	
7 U.S.C. 2131-2159	Animal Welfare Act
15 U.S.C. 1821-1831	Horse Protection Act

There were 5,524 permanent full-time employees as of September 30, 2018. Of the total, 1,174 full-time employees were located at headquarters. APHIS manages programs on a national basis through two regional offices and 433 field offices, including area offices, work stations, technical centers, and animal import centers. APHIS conducts much of its work in cooperation with State and local agencies, private groups, and foreign governments. APHIS performs work in the 50 States, Washington, D.C., Guam, Puerto Rico, Virgin Islands, Mexico, Central America, South America, the Caribbean, Western Europe, Asia, and Africa.

Each year, the Office of Inspector General (OIG) and the Government Accountability Office (GAO) audits selected programs to examine the efficiency of the programs and operations including program results, compliance with applicable laws and regulations, and fair presentation of financial reports. Audits in which APHIS has been involved during FYs 2018 – 2019 include those listed below. If an audit has no specific recommendations for APHIS, the audit will not be included in this listing for APHIS.

OIG and GAO Reports

Table APHIS-2. Completed OIG Reports

ID	Date	Title	Result
33099-01-23	05/2018	Texas Boll Weevil Eradication Foundation Grant	OIG report was issued with 6 recommendations. APHIS is in the process of implementing recommendations.
33601-01-31	05/2017	Animal Welfare Act – Marine Mammals	OIG report was issued with 6 recommendations. APHIS has implemented two recommendations and is in the process of implementing the remaining four recommendations, which includes coordinating with NOAA.
33601-01-41	12/2014	APHIS Oversight of Research Facilities	OIG report was issued with 15 recommendations. Of the 15 recommendations, 14 recommendations are closed. Recommendation #15 is still pending implementation and will remain open until APHIS revises Form #7023 and develops related guidance.
50024-01-22	03/2018	USDA Controls over Purchase Card Use	Audit includes APHIS and other USDA agencies. USDA's Office of Procurement and Personnel Management is the lead for this audit. Audit report was issued with no recommendations for APHIS.

ID	Date	Title	Result
50099-03-21	09/2018	USDA's Management Over the Misuse of Government Vehicles	Audit includes APHIS and other USDA Agencies. Audit work is on-going.
50601-01-32	09/2015	Controls Over APHIS' Introduction of Genetically Engineered Organisms	OIG report was issued with 13 recommendations. APHIS implemented and received official closure on 11 of the 13 recommendations. Recommendations #2 and 8 are pending implementation.
50601-04-31	03/2016	USDA Response to Antibiotic Resistance	OIG report was issued with 6 of the 19 recommendations for APHIS. APHIS is in the process of implementing recommendations #7, 8, 9, 15, 16 and 19.
50601-08-TE	12/2005	Controls Over APHIS Issuance of Genetically Engineered Organisms Release Permits	OIG report was issued with 28 recommendations. Of the recommendations, 25 are closed. Recommendations #1-3 remain open.
50601-16-TE	05/2011	Controls Over Genetically Engineered Animal and Insect Research	OIG report was issued with 8 recommendations. All recommendations have been implemented by APHIS.
50701-01-21	09/2018	USDA Activities for Agro-terrorism Prevention, Detection and Response	OIG report was issued with 5 recommendations for APHIS. APHIS is in process of implementing recommendations.

Table APHIS-3. In-Progress OIG Reports

ID	Title
33701-01-21	National Veterinary Stockpile Oversight
50401-16-11	Department of Agriculture's Consolidated Financial Statement for Fiscal Year 2018
50501-17-12	Security Over Select USDA Agencies' Networks and Systems (FY 2018)
50501-21-12	Data Encryption Controls Over Personally Identifiable Information on USDA Information Technology Systems

Table APHIS-4. Completed GAO Reports

ID	Date	Title	Result
100267	03/2017	Federal Actions to Monitor and Control Antibiotic Resistance in Food and Animals	Audit includes APHIS and other USDA and non USDA agencies. GAO report was issued with one recommendation with 3 parts for APHIS. APHIS has implemented two parts, and will have the third part implemented by summer 2019.
100285	10/2014	Foreign Ownership of Government-leased Space	Audit includes APHIS and other USDA and non-USDA agencies. GAO report was issued with no recommendations for APHIS.
100294	04/2017	Safety of Imported Beef from Countries with a History of FMD	GAO report was issued with 3 recommendations for APHIS. All recommendations have been implemented.
100332	12/2016	Financial Management, Oversight, and Transparency Policies Review	GAO report was issued with 3 recommendations for APHIS. All recommendations have been implemented.
100668	05/2017	Highly Pathogenic Avian Influenza	Audit includes APHIS and other USDA agencies. GAO report was issued with 1 recommendation for APHIS. APHIS has implemented the recommendation.
100751	04/2017	Biological Threat Characterization	Audit includes APHIS and other USDA and non-USDA agencies. GAO report was issued with no recommendations for APHIS.
100849	10/2016	Federally Owned Aircraft. (GAO-17-73R)	USDA's Office of Procurement and Personnel Management is the lead office. Audit is government-wide. GAO report was issued with no recommendations for APHIS.
100924	10/2017	Federal Facilities Risk Assessment Processes	The audit is of USDA's Agricultural Research Service. APHIS was included in this audit. GAO report was issued with no recommendations for APHIS.
101016	10/2017	Comparative Oversight of High-Containment Laboratories	Audit includes APHIS and other non-USDA agencies. GAO report was issued with 6 recommendations for APHIS. APHIS has implemented 3 recommendation, and is in the process of implementing the other 3 recommendations.
101039	12/2017	U.S. Foreign Assistance to Inter-American Multilateral Organizations	Audit includes APHIS and other USDA agencies. GAO report was issued with no recommendations for APHIS.

ID	Date	Title	Result
101985	05/2018	Animal Use in Federal Research: Agencies Share Information, but Reporting and Data Quality Could Be Strengthened	GAO report was issued with 4 recommendations for APHIS. APHIS is in the process of implementing recommendations.
291264	04/2016	High-Containment Laboratories: Comprehensive and Up-to-Date Policies and Stronger Oversight Mechanisms Needed to Improve Safety.	GAO report was issued with 5 recommendations. APHIS has implemented all recommendations and is awaiting final closure from GAO.
361562	05/2015	Federal Veterinarian Workforce	The audit includes the Office of Personnel Management. GAO report was issued with 1 recommendation for APHIS. APHIS is in the process of implementing the recommendation.
361589	04/2016	Genetically Engineered Crops.	The audit includes APHIS and USDA's National Agricultural Statistics Service. GAO report was issued with 3 recommendations for APHIS. APHIS is implementing the recommendations.
361615	12/2015	Emerging Swine Diseases	GAO report was issued with 3 recommendations for APHIS. All 3 recommendations have been implemented.
460640	09/2016	Improved Oversight of Dangerous Pathogens to Mitigate Risk	GAO report was issued with 4 recommendations for APHIS and several non-USDA Agencies. APHIS has one remaining recommendation that requires implementation.

Table APHIS-5. In-Progress GAO Reports

ID	Title
101657	Financial Rewards for Reporting Illegal Activities Related to Plants, Wildlife, and Antiquities
101732	Federal Grants Workforce Training
102051	USDA's Preparedness for Foot-and-Mouth Disease
102432	Federal Efforts in Environmental Justice
102509	Federal Preparedness for Responding to Antimicrobial-Resistant Pathogens
102874	Federal Government's Efforts to Develop, Validate, and Promote Alternatives to the Use of Animals in Research, Testing and Training
102916	Federal Cybersecurity Requirements and Assessments for State Programs
102947	National Bio- and Agro-Defense Facility Operations Transfer
103113	National Biodefense Strategy

AVAILABLE FUNDS AND STAFF YEARS**Table APHIS-6. Available Funds and Staff Years (thousands of dollars, staff years (SY))**

Item	2017 Actual	SY	2018 Actual	SY	2019 Estimate	SY	2020 Budget	SY
Salaries and Expenses:								
Discretionary Appropriations.....	\$946,212	4,827	\$981,893	4,827	\$981,893	4,827	\$981,893	4,849
Citrus Greening	5,500	-	7,500	-	7,500	-	-	-
Subtotal Discretionary Funding.....	951,712	4,827	989,393	4,827	989,393	4,827	981,893	4,849
Mandatory Funding:								
Mandatory Approp: Farm Bill	58,188	15	70,050	26	227,850	256	75,000	26
Agricultural Quarantine Inspection User Fees:								
Total Collections	760,857	1,250	796,584	1,325	798,060	1,325	842,430	1,325
Buildings and Facilities:								
Discretionary Appropriations.....	3,175	-	3,175	-	3,175	-	2,709	-
Fruit Fly Rearing Facility	47,000	-	-	-	-	-	-	-
Trust Funds:								
Mandatory Appropriations	9,612	50	9,514	50	9,004	50	9,082	50
Foreign Service National Separation Liability Trust.....	-	-	157	-	200	-	200	-
Transfers In	23,901	1	-	-	-	-	-	-
Transfers Out	-534,515	-	-539,000	-	-539,000	-	-539,000	-
Adjusted Appropriation.....	1,319,930	6,143	1,329,873	6,228	1,488,682	6,458	1,372,314	6,250
Balance Available, SOY	321,557	492	415,469	498	457,880	516	595,452	773
Other Adjustments (Net)	39,673	-	36,492	-	-	-	-	-
Total Available.....	1,681,160	6,635	1,781,835	6,726	1,946,562	6,974	1,967,766	7,023
Lapsing Balances	-1,313	-285	-4,220	-498	-	-	-	-
Balance Available, EOY	-415,469	-498	-457,880	-516	-595,452	-773	-566,827	-771
Subtotal Obligations, APHIS	1,264,378	5,852	1,319,734	5,712	1,351,110	6,201	1,400,939	6,252
Obligations under other USDA appropriations:								
Agricultural Marketing Service.....	7,276	-	8,132	-	8,183	-	8,199	-
Agricultural Research Service.....	4,557	-	4,889	-	4,920	-	4,929	-
Departmental Administration.....	-	-	80	-	81	-	81	-
Economic Research Service.....	16	-	-	-	-	-	-	-
Food Safety and Inspection Service	426	-	364	-	366	-	367	-
Foreign Agricultural Service.....	5,590	-	4,757	-	4,787	-	4,796	-
Forest Service	541	-	697	-	701	-	703	-
Grain Inspection, Packers and Stockyards Admin.	1,648	-	1,687	-	1,698	-	1,701	-
National Appeals Division.....	-	-	7	-	7	-	7	-
National Institute of Food and Agriculture	-	-	106	-	107	-	107	-
Natural Resources Conservation Service	-	-	11	-	11	-	11	-
Office of Chief Financial Officer	-	-	145	-	146	-	146	-
Office of the Chief Information Officer	-	-	84	-	85	-	85	-
Office of the Secretary	-	-	24	-	24	-	24	-
Risk Management Agency	30	-	42	-	42	-	42	-
Total, Agriculture Appropriations.....	20,084	-	21,025	-	21,157	-	21,199	-
Other Federal Funds:								
DOD, U.S. Air Force	9,174	-	11,096	-	11,165	-	11,188	-
DOD, Air National Guard.....	3,588	-	2,947	-	2,965	-	2,971	-
DOD, U.S. Navy	6,155	-	4,810	-	4,840	-	4,850	-
DOD, U.S. Marine Corps.....	1,210	-	2,133	-	2,146	-	2,151	-
DOD, U.S. Army	1,563	-	1,365	-	1,374	-	1,376	-
DOD, U.S. Army Corp of Engineers	1,632	-	1,687	-	1,698	-	1,701	-
DOD, Defense Threat Reduction Agency	528	-	76	-	76	-	77	-
Department of Energy	224	-	190	-	191	-	192	-
Department of Health and Human Services	106	-	104	-	105	-	105	-
DHS: for Coast Guard and other services and support	615	-	394	-	396	-	397	-
Federal Emergency Management Agency	156	-	332	-	334	-	335	-
National Aeronautics and Space Administration.....	267	-	347	-	349	-	350	-
USDOJ, Geological Survey, National Park Service, Office of Insular Affairs.....	1,626	-	1,401	-	1,410	-	1,413	-
USDOJ, Bureau of Land Management & Reclamation: for administrative and technical support.....	444	-	471	-	474	-	475	-

Item	2017		2018		2019		2020	
	Actual	SY	Actual	SY	Estimate	SY	Budget	SY
USDOJ, Fish and Wildlife Services:								
for natural resources and endangered species	2,797	-	2,479	-	2,495	-	2,500	-
USDOT: Federal Aviation Administration	1,295	-	857	-	862	-	864	-
Department of State: miscellaneous services	86	-	3	-	3	-	3	-
Department of Veterans Affairs	22	-	24	-	24	-	24	-
Environmental Protection Agency: miscellaneous								
services	1,255	-	1,034	-	1,040	-	1,043	-
GSA: for miscellaneous services.....	14	-	2	-	2	-	2	-
Other Federal Funds.....	376	479	251	411	253	419	253	419
Total, Other Federal	33,133	479	32,003	411	32,203	419	32,269	419
Non-Federal Funds:								
Funds from organizations, states, and local entities for								
wildlife, plant, and animal services support.....	60,886	635	58,001	636	58,364	636	58,481	636
Import-Export User Fees.....	46,798	370	42,569	336	42,836	364	42,921	364
Phytosanitary Certificate User Fees	19,448	141	18,983	137	19,102	140	19,140	140
Reimbursable Overtime	8,360	82	9,379	83	9,438	84	9,457	84
Veterinary Diagnostics User Fees	7,402	56	6,319	54	6,359	57	6,371	57
Other User Fees	464	-	3	-	3	-	3	-
Subtotal, Reimbursables Salaries and Expenses	196,575	1,763	188,282	1,657	189,461	1,700	189,840	1,700
Total, APHIS.....	1,460,952	7,615	1,508,016	7,369	1,540,571	7,901	1,590,779	7,952

PERMANENT POSITIONS BY GRADE AND STAFF YEARS*Table APHIS-7. Permanent Positions by Grade and Staff Years*

Item	2017			2018			2019			2020		
	Actual			Actual			Estimate			Budget		
	Hdqs	Field	Total	Hdqs	Field	Total	Hdqs	Field	Total	Hdqs	Field	Total
SES.....	29	10	39	26	10	36	29	10	39	29	10	39
GS-15.....	75	61	136	77	59	136	77	63	140	77	63	140
GS-14.....	326	301	627	333	290	623	334	298	632	334	300	634
GS-13.....	288	514	802	284	507	791	286	512	798	287	516	803
GS-12.....	204	996	1,200	200	974	1,174	203	981	1,184	205	987	1,192
GS-11.....	85	769	854	95	769	864	97	773	870	99	777	876
GS-10.....	-	8	8	-	8	8	-	9	9	-	12	12
GS-9.....	84	458	542	70	451	521	72	451	523	72	457	529
GS-8.....	6	259	265	7	259	266	7	261	268	7	261	268
GS-7.....	61	648	709	61	597	658	62	599	661	62	600	662
GS-6.....	9	204	213	8	155	163	8	155	163	8	155	163
GS-5.....	9	139	148	7	103	110	8	105	113	8	105	113
GS-4.....	9	20	29	15	18	33	15	18	33	15	18	33
GS-3.....	-	14	14	3	14	17	3	14	17	3	14	17
Other Graded.....	10	99	109	15	112	124	15	112	127	15	112	127
Total Perm. FT EOY	1,195	4,500	5,695	1,201	4,326	5,524	1,216	4,361	5,577	1,221	4,387	5,608
Staff Year Est.....	1,482	6,133	7,615	1,434	5,935	7,369	1,538	6,363	7,901	1,547	6,405	7,952

VEHICLE FLEET

Motor Vehicle Fleet

APHIS uses vehicles to deliver mission critical services. The Agency's veterinarians, animal health technicians, inspectors, plant protection and quarantine officers, wildlife biologists, and other technical personnel use motor vehicles in their daily responsibilities, which entail travel between inspection sites, farms, ranches, ports, nurseries, and other commercial firms. In some cases, APHIS' cooperators use Agency vehicles as authorized in program cooperative agreements.

To maximize the life span of vehicles, operators are required to keep historical maintenance records and submit the vehicles' operational and cost data for review and report on the vehicle's condition and usage statistics at least once a year. Periodic maintenance surveys and reviews of consolidated vehicle fleet data ensure optimal use of each vehicle in the fleet.

Replacement Criteria

APHIS replaces vehicles in accordance with Title 41, CFR § 102–34.270. Agency programs replace and retire vehicles using data on utilization, age, condition, and funding availability. APHIS has implemented efforts to both increase the number of alternative fuel vehicles and extend the life cycle of each vehicle.

Reductions to Fleet

APHIS ended FY 2018 with 4,635 vehicles (leased and owned), which is an increase of 94 vehicles. The additional vehicles, mostly light duty trucks, were acquired to support the unforeseen emergency programs (spotted lanternfly and cattle fever tick).

Table APHIS-8. Size, Composition, and Annual Costs of Motor Vehicle Fleet ^a

Fiscal Year	Sedans and Station Wagons	Lt. SUVs and Vans	Lt. Trucks (4x2)	Lt. Trucks (4x4)	Medium Duty Vehicles	Heavy Duty Vehicles	Total Vehicles	Annual Operating Costs ^b
2017	270	1,112	313	1,971	858	17	4,541	\$19,821
Change	-24	-54	-44	+159	+58	-1	+94	-511
2018	246	1,058	269	2,130	916	16	4,635	19,310
Change	-21	-15	-6	+30	-8	-	-20	+289
2019	225	1,043	263	2,160	908	16	4,615	19,599
Change	-11	-10	-1	-5	+1	-	-26	+294
2020	214	1,033	262	2,155	909	16	4,589	19,893

^a Vehicle count includes those owned by agency and leased from commercial sources or GSA.

^b Excludes acquisition costs and gains from sale of vehicles as shown in FAST.

Aircraft

APHIS uses aircraft to conduct mission critical activities such as aerial resource and surveillance surveys, aerial application tests, equipment demonstration and testing, implementation of methods for the control and/or eradication of destructive plant pests or wildlife to reduce damage to agricultural crops, among others.

The annual appropriations act provides APHIS with authority to acquire up to five aircraft of which two shall be for replacement. The agency replaces aircraft when necessary to maintain fleet safety and efficient operating conditions.

The APHIS aircraft fleet consists of 7 operable aircraft for domestic plant pest and disease management programs, and 60 aircraft used for the wildlife damage management programs. Of the 60 aircraft used for the wildlife damage management programs: 53 are owned, 4 are borrowed from State cooperators, and 3 are rented. Of the 53 owned aircraft, 6 of them are non-operational. APHIS uses the non-operational aircraft for parts.

SHARED FUNDING PROJECTS*Table APHIS-9. Shared Funding Projects (dollars in thousands)*

Item	2017 Actual	2018 Actual	2019 Estimate	2020 Estimate
Departmental Shared Cost Programs:				
1890 USDA Initiatives	\$285	-	-	-
Advisory Committee Liaison Services	5	\$5	\$5	\$5
Agency Partnership Outreach	-	580	601	601
Classified National Security Information	87	-	-	-
Continuity of Operations Planning	157	-	-	-
Emergency Operations Center	180	-	-	-
Facility and Infrastructure Review and Assessment	35	-	-	-
Faith-Based and Neighborhood Partnerships	31	-	-	-
Hispanic-Serving Institutions National Program	150	-	-	-
Honor Awards	-	2	5	5
Human Resources Self-Service Dashboard	45	45	46	50
Human Resources Transformation	128	69	-	-
Identity and Access Management	516	-	-	-
Medical Services	11	8	9	9
Office of Customer Experience	-	149	241	291
People's Garden	50	37	-	-
Personnel and Document Security	-	204	192	192
Personnel Security Branch	133	-	-	-
Security Detail	261	344	355	355
Security Operations	-	807	814	814
TARGET Center	113	102	89	89
USDA 1994 Program	61	-	-	-
USDA Enterprise Data Analytics Services	-	-	-	415
Virtual University	155	78	-	-
Total, Departmental Shared Cost Programs	2,402	2,430	2,357	2,826
E-Gov:				
Budget Formulation & Execution LoB	6	6	6	6
Enterprise HR Integration	142	142	142	142
Financial Management LOB	10	10	10	10
HR Management LOB	20	22	22	22
Integrated Acquisition Environment	135	138	149	-
E-Rulemaking	55	69	57	-
Geospatial LoB	13	13	13	13
Grants.gov	1	1	1	1
Total, E-Gov	382	401	400	194
Working Capital Fund:				
Administration:				
HR Enterprise System Management	86	105	106	113
Integrated Procurement Systems	1,619	1,655	1,602	1,606
Mail and Reproduction Services	212	208	200	188
Materiel Management Service Center	934	858	824	825
Procurement Operations Division	27	40	53	65
Communications:				
Creative Media and Broadcast Center	81	654	596	353
Correspondence Management Services				
Office of the Executive Secretariat	1,059	953	1,371	1,361
Finance and Management:				
Financial Shared Services	7,254	7,059	9,992	8,878
Internal Control Support Services	177	153	159	159
National Finance Center	2,212	2,425	2,289	2,397
Information Technology:				
Client Experience Center	3,853	3,571	4,726	4,609
Digital Infrastructure Services Center	12,716	12,389	7,821	7,821
Enterprise Network Services	1,236	1,503	7,211	7,421
Total, Working Capital Fund	31,466	31,574	36,949	35,797

ACCOUNT 1: SALARIES AND EXPENSES**LEAD-OFF TABULAR STATEMENT***Table APHIS-10. Lead-Off Tabular Statement*

Item	Amount
2019 Annualized Continuing Resolution.....	\$981,893,000
Change in Appropriation	0
Budget Estimate, 2020	<u>981,893,000</u>

APPROPRIATIONS LANGUAGE

The appropriations language follows (new language underscored; deleted matter enclosed in brackets):

For necessary expenses of the Animal and Plant Health Inspection Service, including up to \$30,000 for representation allowances and for expenses pursuant to the Foreign Service Act of 1980 (22 U.S.C. 4085), \$981,893,000, of which \$470,000, to remain available until expended, shall be available for the control of outbreaks of insects, plant diseases, animal diseases and for control of pest animals and birds ("contingency fund") to the extent necessary to meet emergency conditions; of which \$7,000,000, to remain available until expended, shall be used for the cotton pests program, including cost share purposes or for debt retirement for active eradication zones; of which \$44,857,000, to remain available until expended, shall be for Animal Health Technical Services; of which \$705,000 shall be for activities under the authority of the Horse Protection Act of 1970, as amended (15 U.S.C. 1831); of which \$62,840,000, to remain available until expended, shall be used to support avian health; of which \$4,251,000, to remain available until expended, shall be for information technology infrastructure; of which \$176,843,000, to remain available until expended, shall be for specialty crop pests; of which, \$7,809,000, to remain available until expended, shall be for field crop and rangeland ecosystem pests; of which \$15,744,000, to remain available until expended, shall be for zoonotic disease management; of which \$40,966,000, to remain available until expended, shall be for emergency preparedness and response; of which \$56,000,000, to remain available until expended, shall be for tree and wood pests; of which \$5,725,000, to remain available until expended, shall be for the National Veterinary Stockpile; of which up to \$1,500,000, to remain available until expended, shall be for the scrapie program for indemnities; of which \$2,500,000, to remain available until expended, shall be for the wildlife damage management program for aviation safety; of which \$17,800,000, to remain available until expended, shall be for science program and transition activities for the National Bio and Agro-Defense Facility: Provided, That of amounts available under this heading for wildlife services methods development, \$1,000,000 shall remain available until expended: Provided further, That of amounts available under this heading for the screwworm program, \$4,990,000 shall remain available until expended; Provided further, That no funds shall be used to formulate or administer a brucellosis eradication program for the current fiscal year that does not require minimum matching by the States of at least 40 percent: Provided further, That this appropriation shall be available for the operation and maintenance of aircraft and the purchase of not to exceed five, of which two shall be for replacement only: Provided further, That in addition, in emergencies which threaten any segment of the agricultural production industry of this country, the Secretary may transfer from other appropriations or funds available to the agencies or corporations of the Department such sums as may be deemed necessary, to be available only in such emergencies for the arrest and eradication of contagious or infectious disease or pests of animals, poultry, or plants, and for expenses in accordance with sections 10411 and 10417 of the Animal Health Protection Act (7 U.S.C. 8310 and 8316) and sections 431 and 442 of the Plant Protection Act (7 U.S.C. 7751 and 7772), and any unexpended balances of funds transferred for such emergency purposes in the preceding fiscal year shall be merged with such transferred amounts: Provided further, That appropriations hereunder shall be available pursuant to law (7 U.S.C. 2250) for the repair and alteration of leased buildings and improvements, but unless otherwise provided the cost of altering any one building during the fiscal year shall not exceed 10 percent of the current replacement value of the building.

In fiscal year 2020, the agency is authorized to collect fees to cover the total costs of providing technical assistance, goods, or services requested by States, other political subdivisions, domestic and international organizations, foreign governments, or individuals, provided that such fees are structured such that any entity's liability for such fees is reasonably based on the technical assistance, goods, or services provided to the entity by the agency, and such fees shall be reimbursed to this account, to remain available until expended, without further appropriation, for providing such assistance, goods, or services.

PROJECT STATEMENT**Table APHIS-11. Project Statement (thousands of dollars, staff years (SY))**

Item	2017 Actual	SY	2018 Actual	SY	2019 Estimate	SY	Inc. or Dec.	Chg Key	SY	2020 Budget	SY
Discretionary Appropriations:											
<u>Safeguarding and Emergency</u>											
<u>Preparedness/Response</u>											
Animal Health Technical Services	\$37,857	156	\$37,857	156	\$37,857	156	+\$7,000	(1A1)	+14	\$44,857	170
Aquatic Animal Health.....	2,253	13	2,253	13	2,253	13	-	(1A2)	-	2,253	13
Avian Health	55,340	247	62,840	247	62,840	247	-	(1A3)	-	62,840	247
Cattle Health.....	91,500	473	96,500	473	96,500	473	-	(1A4)	-	96,500	473
Equine, Cervid & Small Ruminant Health.....	20,000	120	20,000	120	20,000	120	-3,500	(1A5)	-18	16,500	102
National Veterinary Stockpile	5,723	7	5,725	7	5,725	7	-	(1A6)	-	5,725	7
Swine Health	24,800	146	24,800	146	24,800	146	-5,047	(1A7)	-16	19,753	130
Veterinary Biologics.....	16,417	101	16,417	101	16,417	101	-	(1A8)	-	16,417	101
Veterinary Diagnostics	39,540	151	39,540	151	39,540	151	+9,690	(1A9)	+12	49,230	163
Zoonotic Disease Management.....	16,523	64	16,523	64	16,523	64	-779	(1A10)	-	15,744	64
Subtotal, Animal Health	309,953	1,478	322,455	1,478	322,455	1,478	+7,364		-8	329,819	1,470
Agricultural Quarantine Inspection (Appropriated).....	29,330	372	31,330	372	31,330	372	-	(1B1)	-	31,330	372
Cotton Pests.....	11,520	51	11,520	51	11,520	51	-4,520	(1B2)	-	7,000	51
Field Crop & Rangeland Ecosystems Pests	8,826	77	9,326	77	9,326	77	-1,517	(1B3)	-5	7,809	72
Pest Detection.....	27,446	190	27,446	190	27,446	190	-	(1B4)	-	27,446	190
Plant Protection Methods Development	20,686	131	20,686	131	20,686	131	-	(1B5)	-	20,686	131
Specialty Crop Pests	166,500	718	178,170	718	178,170	718	-1,327	(1B6)	+35	176,843	753
Tree & Wood Pests.....	54,000	301	56,000	301	56,000	301	-	(1B7)	-	56,000	301
Subtotal, Plant Health.....	318,308	1,840	334,478	1,840	334,478	1,840	-7,364		+30	327,114	1,870
Wildlife Damage Management	103,376	589	108,376	589	108,376	589	-	(1C1)	-	108,376	589
Wildlife Services Methods Development	18,856	125	18,856	125	18,856	125	-	(1C2)	-	18,856	125
Subtotal, Wildlife Services	122,232	714	127,232	714	127,232	714	-		-	127,232	714
Animal & Plant Health Regulatory Enforcement	16,224	116	16,224	116	16,224	116	-	(1D1)	-	16,224	116
Biotechnology Regulatory Services.....	18,875	96	18,875	96	18,875	96	-	(1D2)	-	18,875	96
Subtotal, Regulatory Services	35,099	212	35,099	212	35,099	212	-		-	35,099	212
Contingency Fund.....	477	5	470	5	470	5	-	(1E1)	-	470	5
Emergency Preparedness & Response ...	40,966	199	40,966	199	40,966	199	-	(1E2)	-	40,966	199
Subtotal, Emergency Management	41,443	204	41,436	204	41,436	204	-		-	41,436	204
Subtotal Safeguarding and Emergency Preparedness/Response	827,035	4,448	860,700	4,448	860,700	4,448	-		22	860,700	4,470
<u>Safe Trade and International Technical Assistance</u>											
Agriculture Import/Export.....	15,599	81	15,599	81	15,599	81	-	(2A)	-	15,599	81
Overseas Technical & Trade Operations	22,114	55	22,115	55	22,115	55	-	(2B)	-	22,115	55
Subtotal Safe Trade and International Technical Assistance.....	37,713	136	37,714	136	37,714	136	-		-	37,714	136
<u>Animal Welfare</u>											
Animal Welfare	28,810	232	30,810	232	30,810	232	-	(3A)	-	30,810	232
Horse Protection	697	6	705	6	705	6	-	(3B)	-	705	6
Subtotal, Animal Welfare	29,507	238	31,515	238	31,515	238	-		-	31,515	238
<u>Agency Wide Programs</u>											
APHIS Information Technology Infrastructure	4,251	-	4,251	-	4,251	-	-	(4A)	-	4,251	-
Physical/Operational Security	5,146	5	5,146	5	5,146	5	-	(4B)	-	5,146	5
Rental and DHS Security Payments ...	42,560	-	42,567	-	42,567	-	-	(4C)	-	42,567	-
Subtotal, Agency Management	51,957	5	51,964	5	51,964	5	-		-	51,964	5
Subtotal, Appropriated.....	946,212	4,827	981,893	4,827	981,893	4,827	-		22	981,893	4,849

2020 USDA EXPLANATORY NOTES – ANIMAL AND PLANT HEALTH INSPECTION SERVICE

Item	2017 Actual	SY	2018 Actual	SY	2019 Estimate	SY	Inc. or Dec.	Chg Key	SY	2020 Budget	SY
General Provision 757 - Citrus Greening	5,500	-	-	-	-	-	-	-	-	-	-
General Provision 771 - Citrus Greening	-	-	7,500	-	7,500	-	-7,500	-	-	-	-
Subtotal, Discretionary Appropriated	951,712	4,827	989,393	4,827	989,393	4,827	-7,500		22	981,893	4,849
Authority from Offsetting collections....	201,731	1,685	206,990	1,785	194,872	1,785	+195		-	195,067	1,785
Mandatory Funding:											
Farm Bill, Section 10007	62,500	15	75,000	26	75,000	26	-		-	75,000	26
Farm Bill, Section 2408	-	-	-	-	37,500	200	-37,500		-200	-	-
Farm Bill, Section 12101	-	-	-	-	120,000	30	-120,000		-30	-	-
Sequester P.L. 113-6...Farm Bill.....	-4,313	-	-4,950	-	-4,650	-	+4,650		-	-	-
Subtotal, Farm Bill	58,188	15	70,050	26	227,850	256	-152,850		-230	75,000	26
Trust Funds.....	9,613	50	9,510	50	9,000	50	-		-	9,000	50
Trust Funds Sequester Restored											
P.L. 113-6.....	89	-	91	-	87	-	-5		-	82	-
Foreign Service National Separation											
Liability Trust.....	-	-	157	-	200	-	-		-	200	-
Agricultural Quarantine Inspection User Fees:											
Total Collections.....	767,682	1,250	795,675	1,325	795,000	1,325	-		-	795,000	1,325
Less: Transfer to DHS	-534,515	-	-539,000	-	-539,000	-	-		-	-539,000	-
Sequester P.L. 113-6 ...AQI.....	-51,399	-	-50,490	-	-47,430	-	+47,430		-	-	-
Sequester Restored...AQI User Fees.....	44,574	-	51,399	-	50,490	-	-3,060		-	47,430	-
Subtotal, AQI User Fees (APHIS)	226,342	1,250	257,584	1,325	259,060	1,325	44,370		-	303,430	1,325
Subtotal, Mandatory Funding	294,232	1,315	337,392	1,401	496,197	1,631	-108,485		-230	387,712	1,401
Total Appropriations.....	1,447,674	7,827	1,533,775	8,013	1,680,462	8,243	-115,790		-208	1,564,672	8,035
Transfers In:											
CCC.....	23,901	1	-	-	-	-	-		-	-	-
Departmental	150	-	90	-	-	-	-		-	-	-
Transfers Out:											
Working Capital Fund	-	-	-450	-	-	-	-		-	-	-
Subtotal, Transfers.....	24,051	1	-360	-	-	-	-		-	-	-
Sequestration P.L. 113-6...Trust Funds	-91	-	-87	-	-82	-	+82		-	-	-
Recoveries, Trust Funds	149	-	122	-	-	-	-		-	-	-
Recoveries	39,029	-	37,139	-	-	-	-		-	-	-
Balance Available, SOY	485,876	642	529,075	549	591,549	625	+143,310		+342	734,859	967
Total Available	1,996,688	8,470	2,099,665	8,562	2,271,929	8,868	+27,602		+134	2,299,531	9,002
Lapsing Balances	-8,458	-306	-8,875	-568	-	-	-		-	-	-
Balance Available, EOY.....	-529,075	-549	-591,549	-625	-734,859	-967	-19,057		-83	-753,916	-1,050
Total Obligations	1,459,155	7,615	1,499,241	7,369	1,537,070	7,901	8,545		51	1,545,615	7,952

JUSTIFICATION - SALARIES AND EXPENSES**(1) A net increase of 22 staff years for Safeguarding and Emergency Preparedness/Response****A) A net increase of \$7,364,000 and net decrease of 8 staff years for Safeguarding and Emergency Preparedness/Response – Animal Health**

- 1) An increase of \$7,000,000 and 14 staff years for the Animal Health Technical Services program (\$37,857,000 and 156 staff years available in 2019).

APHIS' Animal Health Technical Services (AHTS) program develops and enhances the tools available for acquiring and managing vital animal health information for improving global market access. Incorporating national surveillance data standards into data management applications enables animal health information to be compiled nationally, thus leveraging the work of animal health professionals nationwide to meet local, State and national veterinary health objectives. Private veterinarians, trained and accredited through APHIS' National Veterinary Accreditation Program (NVAP), help producers meet export requirements and disease program standards, allowing U.S. animals and animal products to compete in the global economy. APHIS' shared disease transmission and spread models, which the Agency develops for the NVAP, improve planning, managing, and responding to an animal health incident.

The national animal disease traceability (ADT) framework allows Federal, State, Local, Tribal, and private animal health professionals to quickly identify diseased animals, trace their movements, and control disease spread to protect U.S. livestock. This system assures trading partners that the United States is committed and able to rapidly detect and contain an animal disease of concern. The USDA National Agricultural Statistics Services valued production of the U.S. livestock industry at approximately \$69 billion in 2017. APHIS' ADT system helps reduce the number of animals involved in an investigation, reduces the time to respond, and decreases the cost to producers. Moreover, this system assures trading partners that USDA is committed and able to rapidly contain an animal disease event. APHIS has established national baselines for ADT tracing activities. States/Tribes have improved their ability to retrieve the requested animal identification information and are now able to do so successfully 99.5 percent of the time. Prior to implementation of the national baseline for tracing activities, the combined times for three standard types of traces was 490 hours. That combined total dropped to 123 hours in FY 2015 and has continued to decline through FY 2018 to a total of 47 hours.

The AHTS program evaluates existing animal health data systems and applications to determine if they are functioning as intended and meeting customer needs, or if they should be modified, enhanced, or replaced. APHIS makes these systems available to States and Tribal Nations to support their traceability plans and other animal health activities. For example, in FY 2018, APHIS conducted a feasibility and affordability analysis of the Mobile Information Management System, which supports the agency's cattle fever tick eradication program operations. As a result of the analysis, the agency completed a project that modified and enhanced the Mobile Information Management System. These enhancements allow for real-time scanning of animal identification tags, improving the ability to track and monitor animal movement particularly along the U.S. Mexico border.

Additionally, the AHTS program uses epidemiologic and economic models to improve the understanding of historical events, estimate future consequences, and inform strategic, logistical, and budgetary decisions. In FY 2018, APHIS continued to develop and update foot-and-mouth disease (FMD), classical swine fever, and avian influenza models for contingency planning, evaluating potential control strategies, estimating potential consequences of disease introduction and spread, and analyzing surveillance and response activities for recent outbreaks. APHIS also continues to address challenges by developing models designed to advance our understanding of disease epidemiology for the purposes of emergency preparedness and management. Working with the Agricultural Research Service's Foreign Animal Disease Research Unit in FY 2018, APHIS analyzed experimental data for FMD transmission, persistence, and infection dynamics in order to inform parameter development in disease-spread and control models.

The NVAP authorizes private veterinary practitioners to work cooperatively with Federal veterinarians and State animal health officials to report when there are suspect animal diseases. APHIS' NVAP offers educational modules to more than 66,000 highly-trained accredited veterinarians, significantly expanding public outreach. This provides the first step in rapid diagnosis,

quarantine, and other control measures to safeguard our nation's animal and human health. Accredited veterinarians also provide official animal, flock, and herd health certifications, disease testing, and traceability practices for billions of animals each year. Mandatory training and renewal of accreditation provide increased knowledge of animal disease surveillance, prevention, zoonosis, judicious use of antimicrobials, animal welfare, and disaster preparedness. APHIS currently hosts 31 web-based supplemental training modules for accredited veterinarians. Since FY 2011, accredited veterinarians have completed more than 600,000 web modules, with more than 35,000 modules completed at veterinary conferences nationwide.

This program supports USDA's goal to maximize the ability of American agricultural producers to prosper by feeding and clothing the world by quickly controlling the spread of animal diseases to protect the U.S. livestock industry. In FY 2020, the program will continue to focus on the highest priority technology investments that fully integrate animal health information for State and Tribal partners; collaborate with State animal health officials to identify diseased animals and trace their movements; and train veterinarians to help producers meet export requirements and disease program standards.

Overall, base funding for the Animal Health Technical Services program currently supports salaries and benefits of personnel, contracts and agreements, and other normal operating costs such as travel, supplies, rent, and utilities necessary to conduct program activities.

- a) An increase of \$7,000,000 and 14 staff years for ADT enhancements and emerging disease and pest activities.

APHIS is requesting a \$4 million increase with nine staff years to enhance the tracking and reporting of animals through the end of their lifespan, and to improve the record keeping systems that support the national ADT framework. With the additional funds, APHIS would modernize its investments in equipment panels and readers at slaughter plants, allowing the Agency to better track and report when animals are no longer in the system, and retire animal identification tags as appropriate. Currently, the system tracks the animals from the beginning of their movement. The new system will enhance the tracking throughout the lifespan of the animal with the implementation of an electronic ear tag and scanner. Retiring identification tags for dead animals is currently an issue because it requires removing and cleaning each ear tag, manually entering identification numbers into the system to find a match, and then closing the number. This method is labor intensive, time consuming, and inefficient. With electronic ear tags and scanners, identification numbers could be scanned, matched, and closed quickly, efficiently, and accurately. In addition, APHIS would also improve the software associated with its record keeping systems, including electronic health certification. With improved software, the Agency could fully implement an electronic Health Certification System for the interstate movement of livestock. Under this system, accredited veterinarians may enter all animal health certificate data online, where the animal's movements will be tracked and stored through its lifespan. The online system also could produce paper or electronic certificates, whereas the current system requires the entry of certificate data from a paper document.

In addition, APHIS is requesting \$3 million and five staff years to help implement the United States National List of Reportable Animal Diseases (NLRAD). The U.S. NLRAD is a uniform, science- and policy-based, nationally supported standardized list of animal diseases and agents. In 2013, APHIS began to incorporate the NLRAD into the National Animal Health Reporting System, in cooperation with participating States. APHIS is currently in the process of writing a regulation for the NLRAD, which will require States, laboratories, veterinarians, researchers, and producers to report suspected animal diseases. Additional resources will be used for stakeholder outreach, development and maintenance of IT systems, data analysis, emerging disease investigations, and reporting. Existing reporting from Federal and State disease programs will feed into the NLRAD. This new framework will allow diagnostic laboratories to investigate newly identified pathogens and determine their significance and potential for economic impacts. It also would provide Federal officials and State cooperators with resources to conduct field investigations and surveillance. Further, it would enable laboratories to develop new diagnostic tools for the management of emerging diseases and for the reporting of detections.

Emerging animal diseases have the potential to negatively affect animal health, public health, and trade. If they are not detected and addressed, they could threaten the livelihood of producers or limit their access to important markets (domestically or internationally). In recent years, we have seen events such as porcine epidemic diarrhea virus in swine, novel parvovirus in horses, and the identification of a new tick species in multiple livestock species and wildlife. The United States had previously never identified this tick species, which is capable of carrying many devastating diseases in livestock as well as zoonotic diseases. The additional funding also would allow the creation and implementation of a new component of the NLRAD that addresses emerging animal disease surveillance and response. APHIS has developed an emerging disease surveillance and response plan that is compatible with the new component. The new component will lead to increased field investigations with State and Federal officials; new laboratory methodologies and expanded diagnostic testing for new pathogens at laboratories; data collection, management and reporting; and coordination with public health partners for zoonotic disease concerns.

The NLRAD framework is a vital component of comprehensive and integrated animal disease surveillance in the United States. It will provide the basis for consistent reporting with uniform case findings and reporting criteria. It will facilitate national, interstate, and international commerce; assist in meeting international reporting obligations to the World Organisation for Animal Health and trading partners; support the generation of export certifications; contribute to the assessment and reporting of listed zoonotic and endemic animal diseases; and facilitate response to an emerging disease or issue. This framework will also align U.S. reporting standards with the national reporting standards of other countries, such as Australia, Canada, Mexico, and the European Union. The NLRAD concept encourages consistent disease reporting; facilitates national, interstate, and international commerce; and assists in meeting international reporting obligations. It benefits the U.S. agricultural industry by enhancing animal disease surveillance and standardization of animal disease reporting and improving international transparency and relations.

2) Aquatic Animal Health program (\$2,253,000 and 13 staff years available in 2019).

The Aquatic Animal Health program protects the health and value of U.S. farm-raised aquatic animals and natural resources by carrying out activities consistent with the National Aquatic Animal Health Plan (NAAHP), which calls for surveillance and testing of high-consequence aquatic animal diseases. The NAAHP helps the Federal government develop policies and programs to address aquatic animal diseases for the benefit of aquaculture and aquatic animal resources. Together, USDA, the U.S. Department of Commerce, and the U.S. Department of the Interior implement the plan.

APHIS works with the National Aquaculture Association on the Commercial Aquaculture Health Program Standards (CAHPS). The goal of CAHPS is to support improved health management, protection and expansion of aquaculture business opportunities, promotion and facilitation of trade, and improved resource protection. The CAHPS establishes plans for biosecurity, surveillance, and response related to animal health events; well-managed surveillance planning is the foundation for animal health activities. In addition, CAHPS establishes a non-regulatory framework to improve and verify the health of farm-raised aquatic animals to provide leverage in trade negotiations. The aquaculture industry and State governments use this framework to maintain or enhance their aquatic animal health programs. This effort positions commercial producers to better compete in domestic and international trade markets, valued at \$1.6 billion (2012 USDA Census of Agriculture), and helps the aquaculture industry demonstrate adherence to sound aquatic animal health practices. The Aquatic Animal Health program supports USDA's goal to maximize the ability of American agricultural producers to prosper by feeding and clothing the world.

In recent years, APHIS has added several aquatic animal pathogens to the National Animal Health Laboratory Network (NAHLN) repertoire of standardized testing, including infectious salmon anemia virus, spring viremia of carp virus, and viral hemorrhagic septicemia virus. Incorporating these pathogens into the NAHLN has helped standardize aquatic animal pathogen testing and build our Nation's capacity to respond to aquatic animal disease outbreaks, support surveillance, and maintain or expand U.S. export markets.

Overall, base funding for the Aquatic Animal Health program currently supports salaries and benefits, and other program operating costs such as travel, supplies, rent, and utilities necessary to conduct program activities.

3) Avian Health program (\$62,840,000 and 247 staff years available in 2019).

The Avian Health program protects the U.S. poultry industry, valued at \$43 billion in 2017 (National Agricultural Statistics Service, USDA), while facilitating trade in poultry and poultry products. This program consists of the surveillance, prevention, and control of avian diseases; disease threat planning and response; international health activities; and modeling activities. To ensure the poultry industry maintains worldwide competitiveness, it is essential to quickly detect and address endemic, emerging, and foreign disease threats. To quickly detect avian diseases, APHIS conducts surveillance in domestic poultry, live bird marketing systems (LBMS), and wild birds. The Agency helps prevent and/or control the spread of avian diseases through collaboration, education, and regulatory enforcement. APHIS designed these prevention and control activities to quickly diagnose disease, improve biosecurity conditions, and minimize the effects of avian influenza (AI) on the LBMS and commercial poultry industry.

The National Poultry Improvement Plan (NPIP) is a cooperative Federal-State-industry program that helps participants guard against disease incursion and enhance the marketability of poultry and poultry products. The NPIP AI prevention and control program involves the participation of all 50 States and Puerto Rico; more than 95 percent of commercial broiler, turkey, and egg industries; and 100 percent of the primary poultry breeding industry. Approximately 100 authorized and approved laboratories provide diagnostic testing for the program.

The LBMS is a network of U.S. live poultry markets and their production and distribution systems, which provides fresh poultry meat to consumers. Approximately 40 States and the U.S. Virgin Islands have live bird markets that participate in the Agency's AI prevention and control program. State cooperators help conduct surveillance and diagnostic activities for the LBMS. When these tests yield presumptive positive results, APHIS confirms the presence and strain of AI. LBMS testing prevents and controls the disease in markets and among producers and distributors that supply those markets. These prevention and control activities are designed to quickly diagnose disease, improve biosecurity conditions, and minimize the effects of AI on the LBMS and commercial poultry industry.

Overseas, APHIS facilitates agricultural trade, works with agricultural officials, monitors agricultural health, and supports efforts in sanitary and phytosanitary standard-setting. In addition, the agency works with the USDA Foreign Agricultural Service and the U.S. Trade Representative's Office to maintain a coordinated, strategic approach to resolving avian health issues that affect U.S. exports. Further, APHIS coordinates with the World Organisation for Animal Health and other international organizations to assist with disease prevention, management, and eradication activities in HPAI-affected regions. Assisting other countries in emergency preparedness reduces the risk of the disease spreading from overseas to the United States. To open markets for U.S. poultry, APHIS negotiates protocols for trade of poultry and related products. When markets close to certain States or regions in response to LPAI detections, APHIS provides science-based rationales to reopen markets, coordinates informational visits and exchanges, facilitates the U.S. industry's access to foreign decision-makers, and participates in negotiations.

In addition, APHIS sponsors and staffs the Emergency Management Center (formerly the Crisis Management Center for Animal Health) at the Food and Agriculture Organization (FAO) of the United Nations in Rome, Italy. The Agency provides a veterinarian for this Center, which helps countries respond to and contain animal disease threats. The Center also provides assessments, guidance and resources to enable rapid response to animal disease outbreaks in countries where the United States would have difficulties placing personnel or responding bilaterally. This approach reduces the threat of disease outbreaks becoming widespread and evolving into pandemics. APHIS ensures that U.S. trading partners adhere to the Sanitary and Phytosanitary rules of the World Trade Organization and other international standards-setting organizations, as the United States and FAO-Rome expand their cooperating relationships and establish new partnerships.

This program supports USDA's goal to maximize the ability of American agricultural producers to prosper by feeding and clothing the world by quickly detecting and then addressing economically

significant avian diseases that impact the value and marketability of U.S. poultry and poultry products.

Overall, base funding currently for the Avian Health program supports salaries and benefits, cooperative agreements and programmatic contracts, and other normal operating costs such as travel, supplies, rent, and utilities to conduct program activities.

4) Cattle Health program (\$96,500,000 and 473 staff years available in 2019).

The Cattle Health program protects and improves the quality, productivity, and economic viability of the U.S. cattle and bison industry, valued at \$111 billion in 2017 (National Agricultural Statistics Service, USDA). The Cattle Health program has two major goals: to rapidly detect and respond to diseases that could significantly affect the U.S. cattle and bison population, and to prevent the spread of any newly detected disease in the United States as well as endemic domestic cattle and bison diseases of concern. To accomplish these goals, APHIS conducts activities related to surveillance and monitoring, disease prevention, and disease investigation and outbreak response actions. In addition, APHIS maintains regulations, national program standards, and guidelines that direct cattle health activities at the Federal, State, and Tribal level. Maintaining these standards is a vital Federal responsibility that supports interstate and international commerce by providing assurances about the health of animals and products being moved or traded.

APHIS conducts surveillance and monitoring activities for diseases to protect the health of U.S. cattle and facilitate trade. Surveillance information within the Cattle Health program verifies that certain diseases do not exist in the cattle population, thus facilitating trade and protecting public health. For example, surveillance information on bovine spongiform encephalopathy (BSE) has been instrumental in allowing the United States to maintain export markets for all beef, which were worth approximately \$6.2 billion in FY 2017 (International Trade Centre).

APHIS conducts surveillance for diseases of concern including bovine tuberculosis (TB), brucellosis, and BSE. APHIS' surveillance and disease prevention activities for bovine TB includes testing live cattle and using slaughter surveillance data from the USDA's Food Safety and Inspection Service. Since the bovine TB program began in 1917, the prevalence of TB has significantly decreased in U.S. livestock. Today, the prevalence rate in cattle herds is at less than 0.001 percent. We also have had success in reducing the prevalence of brucellosis. All 50 States, including the District of Columbia, Puerto Rico, and the U.S. Virgin Islands, have been free of brucellosis since July 2009; however, bovine brucellosis remains endemic around the Greater Yellowstone Area in wild bison and elk.

APHIS, with cooperation from the State of Texas, also maintains a permanent quarantine zone on the Texas/Mexican border to prevent cattle fever ticks (CFT) from spreading within the United States. Since white tail deer and exotic nilgai act as a carrier for the pests, the risk of ticks crossing the Rio Grande River and leaving quarantines areas continue. The program increased its mitigations by conducting more individual animal inspections, restricting wildlife movement, treating additional white tail deer populations with medicated corn, and increasing the use of vaccines that fight tick infestations. In FY 2018, APHIS conducted 137,565 individual animal inspections and 97,303 treatments throughout South Texas. This program's goal for FY 2020, is to continue to eliminate all CFT outbreaks that occur outside the quarantine area within 12 months.

APHIS also conducts preventive programs to exclude exotic pests and diseases from the country. The Agency works with neighboring countries to prevent the entrance of cattle diseases such as bovine TB, foot-and-mouth disease, and BSE, as well as invasive livestock pests such as screwworm. USDA estimates that the benefits for U.S. livestock producers remaining free of screwworm to be approximately \$796 million a year, resulting in \$2.8 billion a year in general benefits to the wider economy. APHIS partners with screwworm-free nations to maintain import protocols and quarantine processes to prevent infested animals from entering the United States. In addition, APHIS works with the Panamanian government to maintain a screwworm prevention barrier at the Darien Gap and to be prepared to respond to outbreaks in the United States.

The Cattle Health program supports USDA's goal of maximizing the ability of American agricultural producers to prosper by feeding and clothing the world by protecting and improving the quality, productivity, and economic viability of the U.S. cattle and bison industry. APHIS will continue to

detect, prepare for, and respond to cattle health issues in FY 2020, reducing the likelihood of disease spread that would result in larger and more serious disease outbreaks.

Overall, base funding for the Cattle Health Program currently supports salaries and benefits, cooperative and programmatic contracts, and other normal operating costs such as travel, supplies, rent, and utilities to conduct program activities.

- 5) A decrease of \$3,500,000 and 18 staff years for the Equine, Cervid and Small Ruminant Health program (\$20,000,000 and 120 staff years available in 2019).

The Equine, Cervid, and Small Ruminant Health (ECSRH) program protects the health and improves the quality, productivity, and economic viability of the equine, cervid, sheep, and goat industries. The program conducts surveillance, investigates and responds to disease outbreaks, and carries out disease prevention and preparedness activities when animal health issues are identified. APHIS also works with international and domestic trading partners to facilitate safe trade in equine, cervids, and small ruminants and their products and ensure that cases of diseases of trade concern are reported to the World Organisation for Animal Health. The ECSRH program conducts surveillance activities for the following diseases: equine infectious anemia, equine piroplasmosis, Eastern equine encephalitis, Western equine encephalitis, West Nile virus, equine herpes virus, and scrapie.

The program protects the equine industry by helping State animal health officials monitor equine diseases that threaten animal and human health, such as equine infectious anemia and equine piroplasmosis. The United States is the world's second leading exporter of horses by value, accounting for 17 percent of the \$2.7 billion worldwide market value (Global Trade Atlas 2017). According to a study conducted by the American Horse Council, the industry's 7.2 million horses contribute approximately \$50 billion in direct economic impact to the U.S. economy. Biting arthropods transmit equine infectious anemia and equine piroplasmosis diseases, and no vaccine is currently available, making surveillance efforts more meaningful. Equine infectious anemia surveillance efforts have been very successful. The rate of reactors among the tested equine population has declined from 3.8 percent in 1972 to 0.00004 percent in 2017. APHIS also collaborates with States and the Centers for Disease Control and Prevention to facilitate communication about zoonotic diseases in equines including Eastern equine encephalitis, Western equine encephalitis and West Nile virus. In FY 2018, State animal health officials and private veterinarians reported 97 cases of equine encephalitis to APHIS' electronic surveillance and reporting system.

Scrapie is a fatal, degenerative disease that affects the central nervous system of sheep and goats. The industry loss due to scrapie is estimated to be \$10 to \$20 million annually, not including lost market opportunities due to export restrictions (National Institute for Animal Agriculture). Since 2003, the percentage of cull sheep sampled at slaughter that tested positive for classical scrapie has decreased significantly. In FY 2018, APHIS collected samples from 43,625 sheep and goats for scrapie testing, detecting three positive (0.0068%) cases. The National Scrapie Eradication Program has a voluntary flock certification component, the Scrapie Free Flock Certification Program (SFCP). Participation in the SFCP enables producers to enhance the marketability of their animals by protecting them from scrapie and provides participants an avenue to export sheep and goats. At the end of FY 2018, 264 flocks were enrolled in the SFCP. Of these, 47 were export certified (scrapie-free), 54 were export monitored (working toward scrapie freedom), and 163 were select monitored (reduced scrapie risk).

APHIS also conducts monitoring and surveillance activities to detect diseases that affect cervids, including chronic wasting disease (CWD) and tuberculosis (TB). APHIS' voluntary national CWD Herd Certification Plan (HCP) works with States, Tribes, and the cervid industry to control CWD in farmed cervids by allowing the interstate movement only from certified herds. Currently, 28 States participate in the national CWD HCP and the program used an immunohistochemistry test method to test 21,584 farmed cervids for CWD. In FY 2018, the program also tested 11,475 animals using a blood test and 2,807 animals by the single cervical skin test for TB.

This program supports USDA's goal of maximizing the ability of American agricultural producers to prosper by feeding and clothing the world by detecting foreign, emerging, zoonotic, and domestic diseases that could substantially impact the economy.

Overall, base funding for the ECSRH program currently supports salaries and benefits, contracts and agreements, equipment, and other normal operating costs such as supplies, rent, and travel to conduct program activities.

- a) Eliminate Federal contributions for cervid health program efforts (-\$3,500,000 and 18 staff years)
In collaboration with industry and State partners, APHIS developed and implemented a voluntary HCP for CWD. However, CWD continues to spread within the United States. APHIS significantly scaled back its CWD program several years ago due to higher priority animal health needs and the lack of tools available to reduce the spread and eradicate CWD. These challenges still exist. Therefore, APHIS proposes to eliminate Federal contributions for the cervid health program in FY 2020. With the absence of Federal contributions, States and industry would be responsible for carrying out CWD activities.

- 6) National Veterinary Stockpile program (\$5,725,000 and 7 staff years available in 2019).

The National Veterinary Stockpile (NVS) is a component of APHIS' Surveillance Preparedness and Response Services Logistics Center and serves as the primary source of materials, supplies, and equipment for the response to, control of, and containment of significant animal disease outbreaks. The NVS has two primary objectives: to deploy countermeasures, within 24 hours of approval, against the most damaging animal diseases including highly pathogenic avian influenza, foot-and-mouth disease, virulent Newcastle disease, and classical swine fever; and, to assist States, Tribes, and Territories with planning, training, and exercises for the rapid request, receipt, processing, and distribution of NVS countermeasures during an event. To prepare for an incident response, the NVS works with States, Tribes, and Territories to develop their logistical plans, conduct logistical training, and organize full-scale logistical exercises.

To maximize cost-efficiency and response capabilities, NVS personnel work with industry modelers and academic institutions to develop a scientifically estimated quantity of supplies to stockpile for each of the diseases on APHIS' high-consequence diseases list. The NVS personnel gather input from Federal agencies on strategies such as commercially available countermeasures including vaccines, criteria for deploying countermeasures, and ways to leverage stockpiles. The program continues to maintain its capabilities to address high consequence animal diseases, manage inventories, and develop ways to best address the Agency's response capabilities by quickly deploying animal health response resources. For example, the NVS was able to acquire additional poultry depopulation equipment and was successful in providing shipments of personal protective equipment, supplies and equipment in response to the virulent Newcastle disease outbreak in California within 24 hours.

The program facilitates planning and training exercises to identify resource gaps and improve State NVS plans. As a result, animal health officials are better prepared to respond logistically to animal disease outbreaks. In addition to outreach activities, the NVS program partners with other Agency personnel to conduct training to improve communication, collaboration, and integration during a logistics emergency response. These activities enable the Agency, as well as participating stakeholders and partners, to refine their preparedness procedures.

This program supports USDA's goal of maximizing the ability of American agricultural producers to prosper by feeding and clothing the world by deploying supplies and equipment in response to animal disease outbreaks. Without NVS' efforts, disease outbreak response efforts would quickly deplete State resources and overwhelm industry, leading to larger and more serious animal disease outbreaks. In FY 2020, the NVS will continue to deploy countermeasures against the most damaging animal diseases, and assist States, Tribes and Territories with preparing countermeasures during an animal health event.

Overall, base funding for the NVS program currently supports salaries and benefits, supplies, and contracts and agreements, as well as other normal operating costs like rent, travel, and equipment to conduct program activities.

- 7) A decrease of \$5,047,000 and 16 staff years for the Swine Health program (\$24,800,000 and 146 staff years available in 2019).
APHIS' Swine Health program protects the health and improves the quality, productivity, and economic viability of the swine industry. The 2017 production value of the swine industry was

approximately \$19 billion (National Agricultural Statistics Service, USDA). In addition, the program facilitates trade in swine and pork products, and addresses swine health issues at the human-swine interface and between wildlife and domestic swine. APHIS activities include comprehensive and integrated swine surveillance, emergency preparedness and response planning, disease investigation and control activities, zoonotic disease prevention and response, swine health studies and special projects, collaborations on emerging issues, and outreach and communication with stakeholders. In addition, the Agency maintains regulatory and programmatic guidelines to direct activities at the Federal, State, and Tribal levels. Establishing and maintaining national standards support interstate and international commerce by ensuring the health of animals and products being moved or traded.

APHIS collects swine samples from various surveillance streams as part of a comprehensive integrated surveillance approach to detect swine diseases that could substantially affect domestic producers and the national economy. Comprehensive integrated surveillance includes field work and epidemiological investigations, designated surveillance streams, a veterinary diagnostic laboratory infrastructure, data management systems, and methodologies for data analysis and reporting. Surveillance testing supports the swine industry by assuring trading partners and other stakeholders of the status of swine diseases in the United States.

This comprehensive surveillance approach has enabled APHIS to maintain effective surveillance using a risk-based methodology that targets high-risk samples and reduces surveillance costs. In FY 2018, APHIS tested samples for pseudorabies virus (PRV), swine brucellosis, influenza A virus – swine (IAV-S), and classical swine fever (CSF). Testing results received by November 1, 2018, continued to confirm that all commercial swine herds were free from PRV and swine brucellosis, and that CSF remains eradicated from the United States. However, swine brucellosis and PRV continue to be found in non-commercial herds following exposure to feral swine. In all test-positive cases, APHIS and State partners investigate and quarantine infected herds, conduct outbreak testing to determine herd disease levels, and depopulate or remove infected animals through a test-and-removal strategy to eliminate disease from these herds. These efforts protect commercial herds that may be exposed to infected feral swine. Because APHIS has eliminated PRV and swine brucellosis from all U.S. commercial herds, the Agency continues to modernize surveillance activities to reflect a comprehensive, risk-based, and science-based approach to swine surveillance to support trade efforts while reducing burdens on States and producers.

APHIS has the responsibility under the Swine Health Protection Act to license and inspect swine production facilities that feed cooked garbage to swine, and search for unlicensed facilities that may illegally feed raw garbage to swine. This practice could transmit infectious diseases such as African swine fever (ASF), foot-and-mouth disease (FMD), or CSF to swine. By ensuring that food waste fed to swine does not threaten domestic swine, APHIS protects the commerce, health, and welfare of U.S. citizens.

Swine can harbor several zoonotic disease agents, such as IAV-S, swine brucellosis, and trichinella. In FY 2018, APHIS continued to work with the swine industry to further evaluate the development of a negligible-risk compartment for trichinella. Compartmentalization represents a major shift from the traditional paradigm of disease control in that it defines the health status of a subpopulation of animals by common biosecurity and management principles rather than a shared geographic boundary. Establishing this compartment will enable the U.S. pork industry to access and protect international markets for fresh pork without the need for other mitigations such as individual carcass testing or freezing.

In FY 2018, APHIS supported multiple special projects to advance scientific knowledge, situational awareness, rapid disease detection, advance information technology to support comprehensive surveillance and to advance diagnostic tests that are critical to the Agency's ability to respond to swine and human health events. Specifically, APHIS and industry stakeholders continued validating tests for the use of oral fluids in swine foreign animal disease diagnostics involving CSF, ASF, and FMD.

The Swine Health program supports USDA's goal to maximize the ability of American agricultural producers to prosper by feeding and clothing the world by preventing and/or mitigating the spread of agricultural pests and diseases. It has the expertise and infrastructure to work with the swine industry, universities, and Federal and State partners to collect, analyze, and disseminate vital swine health

information to those who might act. In FY 2020, the program will continue to develop and maintain swine surveillance protocols to assure the availability of safe and plentiful swine and swine products.

Overall, base funding for the Swine Health program currently supports salaries and benefits, contracts, and agreements, as well as other normal operating costs such as travel, supplies, and rent, and utilities.

a) Reduction for surveillance activities (-\$5,047,000 and 16 staff years)

APHIS requests a decrease of \$5.047 million for the Swine Health program in FY 2020. At the proposed funding level, the Agency will reduce lower risk surveillance activities, such as the sow/boar surveillance program. The Agency has conducted this surveillance primarily as part of continuing pseudorabies and swine brucellosis surveillance; commercial swine have been free of both of these diseases for many years. In addition, APHIS will reduce the funding it provides to support State swine health activities; continue to fill only the highest priority vacancies; and reduce or delay other operating expenses. The Agency will continue to address the highest program priorities within the established funding level.

8) Veterinary Biologics program (\$16,417,000 and 101 staff years available in 2019).

APHIS' Center for Veterinary Biologics (CVB) regulates veterinary biological products under the Virus-Serum-Toxin Act to ensure that they are pure, safe, potent, and effective. Organizations develop these products to prevent, diagnose, and treat animal diseases in a wide variety of animal species. These products are critical for protecting American agriculture, facilitating trade, and enhancing agricultural economic opportunities. The CVB develops regulations concerning the production and licensing of veterinary biologics, evaluates pre-licensing dossiers and issuance of licenses and permits, tests products submitted for licensure, inspects facilities and products, approves product certifications, investigates non-compliance, and conducts post-marketing surveillance to ensure that manufacturers comply with all relevant regulations and policies. This comprehensive regulatory approach is the most effective way to ensure that only quality, Federally-licensed, veterinary biological products are available to U.S. consumers and U.S. export markets.

Before the Agency began regulating these products, farmers and animal health officials found products to be ineffective or contaminated with harmful diseases, including foreign animal diseases (FADs). While most of the time required in the licensing process is in the control of the potential licensee in developing manufacturing processes and conducting required studies, the CVB analyzes data and conducts confirmatory testing before issuing licenses. To reduce the burden on the regulated industry, CVB expedited turnaround times for the licensing process, streamlined information collection required under specific circumstances, and implemented electronic submissions for most required regulatory submissions. In FY 2018, APHIS received 222 applications for new and renewal licenses/permits, and issued 60 licenses/permits for the prevention, diagnosis, management, or cure of existing or new/emerging animal diseases. In addition, the Agency licensed 94 manufacturers and permittees for approximately 1,708 active veterinary biological product licenses/permits for the control of 230 animal diseases.

APHIS inspects manufacturing facilities to ensure that they produce biologics according to regulations. In FY 2018, the program conducted 62 on-site inspections, 27 percent of which supported a new establishment/facility or product license for the industry. Licensed veterinary biologics are vital since manufacturers can use them to make products to diagnose, prevent, or treat animal diseases, or improve existing biologics. In addition, the Agency investigates cases of possible regulation violations and receives adverse event reports regarding veterinary biological products. These events, which may or may not be caused by the product, occur after the product is used. APHIS gathers this information to better learn how products are used in field conditions and applied to the evaluation process to assure that pure, safe, potent, and efficacious products are available.

The United States and foreign countries require import and export certificates to certify that products are prepared according to the Virus-Serum-Toxin Act. In FY 2018, APHIS reviewed/processed 2,333 Certificates of Licensing and Inspection and reviewed/processed 1,045 export certificates for veterinary biological products. The Agency processed all export certificates within four days, and all certificates of licensing and inspection within 28 days. Timely processing helps ensure that markets

are accessible for manufacturers who export their product. APHIS also helped to ensure there were no FAD events related to the importation of 50 million biologics products.

APHIS annually inspects approximately 50 biologics sites to assure compliance and unlicensed entities investigated either move towards licensure of the product in question or cease the objectionable activity. This program has the expertise and infrastructure to work with animal health industries, universities, and State and Federal partners to collect, analyze, and disseminate vital animal health information to those who might take action.

APHIS also continued the implementation of the single-tier labeling rule in regard to veterinary biologics in FY 2018. Under this rule, the product's efficacy descriptions changed from a system that reflected any of four levels of effectiveness to a single, uniform label claim. This simpler format better communicates product performance, saves time and money for the manufacturer, and makes U.S. labeling more consistent with other products in international markets.

APHIS' National Centers for Animal Health (NCAH) Portal allows real-time communication and data exchange between the agency and biologics manufacturers, eliminating the time and costs of deliveries. By the end of FY 2018, 86 percent of licensed firms were using the NCAH Portal. This resulted in CVB receiving 96 percent of marketing documents, 91 percent of biographical summaries, 76 percent of licensing correspondence, and 56 percent of inspection and compliance correspondence via the NCAH Portal. Also, in FY 2018, CVB added submission of export certification and facility documents to the NCAH Portal. During the fourth quarter of FY 2018, the NCAH Portal received 64 percent of export certificates and 95 percent of facility documents.

The Veterinary Biologics program supports USDA's goal to deliver efficient and effective programs by ensuring that veterinary biologic products that enter the market are pure, safe, and effective for use in protecting animal health. The program will continue this important work in FY 2020.

Overall, base funding for the Veterinary Biologics program currently supports salaries and benefits of personnel, and contracts and agreements, as well as normal operating costs such as supplies, travel, rent, and utilities to conduct program activities.

- 9) A net increase of \$9,690,000 and 12 staff years for the Veterinary Diagnostics program (\$39,540,000 and 151 staff years available in 2019).

Laboratory and diagnostic services are essential components of the U.S. animal health infrastructure. The Veterinary Diagnostics line item provides partial funding for the National Veterinary Services Laboratories (NVSL), which consists of laboratories in Ames, Iowa, and Plum Island, New York. The World Organisation for Animal Health and the Food and Agriculture Organization recognize NVSL as an international reference laboratory for significant animal diseases such as highly pathogenic avian influenza and foot-and-mouth disease (FMD). It provides diagnostic test services ranging from a single laboratory test to comprehensive laboratory services covering many pathogens for suspected domestic and foreign animal disease (FADs) outbreaks. The line item also supports the National Animal Health Laboratory Network (NAHLN), which is an animal disease surveillance and monitoring system that interconnects Federal and State laboratory resources to improve the security of the nation's livestock by providing disease diagnostics both daily and during outbreaks.

The NVSL is often on the forefront of emerging and re-emerging diseases including porcine epidemic diarrhea virus, Senecavirus A (SVA), and bluetongue. Their diagnostic testing and confirmation of surveillance samples improves the security of the nation's livestock. In FY 2018, the NVSL managed more than 483,800 diagnostic tests and approximately 43,500 accessions (one or more diagnostic samples received from the same submitter on the same day). NVSL also tested 2,344 diagnostic accessions to support FAD investigations in FY 2018. Since 2014, APHIS has experienced a sevenfold increase in investigations largely due to the emergence of SVA. SVA is an infectious, but non-fatal, disease that primarily affects pigs. Because SVA symptoms mimic FMD, APHIS must provide a diagnosis to exclude FMD in each case.

The Veterinary Diagnostics line item also provides support for limited infrastructure in NAHLN laboratories; NAHLN program staff and infrastructure costs; the APHIS Laboratory Portal, which provides secure communication for NAHLN laboratories and proficiency test management for NAHLN and non-NAHLN APHIS-approved laboratories; personnel to provide information

management system support for electronic messaging; and online quality management training the NAHLN laboratories use to maintain qualifications for participating in the network. The NAHLN serves as a vital early warning system for foreign and emerging animal diseases. As of October 2018, the NAHLN consisted of 59 Federal, state, and university veterinary diagnostic laboratories in 42 States. These laboratories work with the NVSL reference laboratories to test for 14 economically devastating and/or potentially zoonotic diseases such as FMD, influenza in avian and swine species, bovine spongiform encephalopathy, and classical swine fever.

The NVSL trains NAHLN laboratory personnel to ensure proficiency and standardization for performing diagnostic tests for economically devastating and/or potentially zoonotic diseases. The NAHLN program staff conducts exercises to prepare participating laboratories for animal disease outbreak scenarios; this enables the laboratories to remain proficient in animal disease testing. It also enables them to generate a rapid, local preliminary diagnostic result while confirmatory testing is performed at the NVSL. The program has made it a priority to increase the number of NAHLN laboratories that are capable of electronically messaging test result data to APHIS. In FY 2018, 43 laboratories were capable of such electronic messaging. APHIS projects that number to increase to 45 in FY 2019, 55 in FY 2020, and 58 in FY 2021.

APHIS continues to work with the Department of Homeland Security (DHS) and USDA's Agricultural Research Service (ARS) to transition from the Plum Island Animal Disease Center (PIADC) in New York to the state-of-the-art National Bio-and Agro-Defense Facility (NBAF) under construction in Manhattan, Kansas, and to transfer ownership and operations of NBAF from DHS to USDA. The PIADC, home to APHIS' Foreign Animal Disease Diagnostic Laboratory (FADDL), is the only U.S. laboratory permitted to work with FMD. FADDL also is the custodian of the North American FMD Vaccine Bank. The NBAF will provide larger and more technologically sophisticated facilities, including the first biosafety level-4 biocontainment facility in the United States. This capacity will enable USDA to conduct diagnostics and research, and develop countermeasures for high-consequence, potentially lethal zoonotic livestock diseases. The NBAF will provide a national capability for exotic infectious, vector borne and zoonotic disease research involving large livestock. It also will provide capabilities to conduct research, develop vaccines and anti-virals, as well as enhanced diagnostic and training to guard against foreign animal, emerging and zoonotic diseases.

In preparation for the transition, APHIS is developing a workforce plan for subject matter experts in foreign, emerging, and zoonotic diseases to conduct diagnostics. The Agency will face a significant loss of expertise in this area, and this plan will help preserve and transfer the U.S. FAD diagnostic institutional knowledge to the NBAF. While the agencies prepare for the transfer of ownership and operations of NBAF to the USDA, DHS will complete the construction of NBAF and decommission the PIADC. The transfer will take place after the facility construction and commissioning is complete, anticipated to occur in May 2021. Planning efforts will continue until the facility is fully operational in 2023.

The Veterinary Diagnostics program supports USDA's goal to maximize the ability of American agricultural producers to prosper by feeding and clothing the world. The diagnostics testing conducted under this line item can rapidly confirm the presence or absence of a particular animal disease and can promptly provide decision makers with vital information that could have significant trade impacts and prevent or mitigate the spread of significant animal diseases.

a) Reduce NAHLN activities (-\$5,110,000)

With the requested decrease, the program will continue working with the NAHLN-participating laboratories on the highest-priority animal health issues but will reduce the funding the agency provides to support their infrastructure needs, primarily related to quality management systems and their ability to electronically message test results. The Veterinary Diagnostics program will redirect this funding to support the agency's critical need of transferring PIADC science program operations to the NBAF.

b) Increase for NBAF science program transition activities (+\$14,800,000 and 12 staff years)

APHIS is requesting an increase of \$14.8 million, consisting of \$11.8 million to support science program transition activities to NBAF and \$3 million to address partnership and innovation

activities. This increase, in addition to the \$3 million base funding amount in the FY 2018 appropriation, would provide APHIS with total NBAF funding of \$17.8 million in FY 2020.

Of the requested increase for science program transition activities, APHIS will use \$9 million to purchase laboratory and information technology equipment. The BSL-4 facility at NBAF will increase laboratory capacity to study FADs and emerging diseases with high consequence to animal and public health. In addition, the Agency is unable to transfer its current equipment at the PIADC to the NBAF due to biosafety and logistical reasons. APHIS will purchase the scientific and laboratory equipment necessary for commissioning the NBAF and will establish the initial laboratory diagnostic functions. APHIS will also purchase information technology equipment and software for laboratory functions at NBAF.

Of the requested increase \$1.2 million is for recurring costs for the Agency's science program. APHIS has prioritized certain positions for hiring in 2020, or before. Some of these positions will be placed at NBAF since they are critical to developing standard operating procedures, ordering equipment and supplies, developing the International Organization for Standardization (ISO) accreditation paperwork, and assisting with the select agent registration process. Most of the positions will train on FADDL-specific assay protocols and instrumentation systems at the FADDL, before transitioning to NBAF between 2021 and 2023, and will directly support the critical mission objectives of diagnostic testing, reagent production, and management of the North American FMD Vaccine Bank. The overarching responsibilities of all priority hires include the validation of the space for work flows and laboratory practices for both select agent registration and ISO 17025 accreditation, as well as proficiency in the required equipment care, use, and calibration to meet ISO accreditation and biosafety standards. This request also includes two support staff personnel.

The request also includes an increase of \$500,000 to continue establishing and maintaining a workforce development program to develop personnel to fill NBAF positions through continued service agreements. This program is critical because subject matter expertise and international recognition in FAD diagnostics take years to develop, yet only a small percentage of the current workforce at the FADDL with that expertise have indicated they will relocate to the NBAF in Kansas. Based on the time required to develop expertise in this area, APHIS anticipates a significant expertise gap, particularly during the first 5-10 years of operations at NBAF. This development program will help preserve and transfer the U.S. FAD diagnostic institutional knowledge to the NBAF. While we can train diagnosticians to perform specific tests such as the polymerase chain reaction or the enzyme-linked immunosorbent assay, interpreting unclear results and troubleshooting diagnostic assays when they do not perform properly requires a high level of expertise. Subject matter experts must complete this work for specific diseases. APHIS and ARS initiated this process in FY 2017 with the \$3 million Congress provided to APHIS and \$1 million they provided to ARS. While the agencies will need most of these costs each year leading into 2022, some costs associated with the workforce development program may extend into future years to ensure employee coverage.

In addition, the request includes \$350,000 for retention and relocation costs. The FADDL must maintain the capability to diagnose FADs until the diagnostic testing program at NBAF is fully operational, validated, and accredited. The agency will need retention incentives with service contracts to maintain up to 11 positions identified as critical for baseline operations until 2023. The agency also needs funding to cover relocation costs for FADDL employees that will transfer to the new facility, as well as costs associated with frequent trips during the early transition years for oversight and planning.

The request also includes \$750,000 to allow APHIS to begin document scanning and archiving 60 years of paper files, manuals, and notebooks. APHIS cannot remove these items from the PIADC due to biosafety concerns, and FADDL does not have staff available for this activity. APHIS will contract this work to a company specializing in document scanning technology.

In addition to APHIS science program funding, APHIS is requesting a \$3 million increase to address partnership and innovation activities. Within APHIS, NAHLN and FADDL will partner with industry and academia to address critical needs for foreign animal disease preparedness, including those the NAHLN Methods Technical Working Group identified and the NAHLN

Coordinating Council recommended. These critical needs include improved testing technologies such as whole genome sequencing and multiplexed assays, field deployable and point of care diagnostic platforms, and increased sampling strategy options with pooled sample types to enhance early detection, and improved preparedness efforts through validation of protocols with additional equipment and reagents to ensure sufficient availability during an outbreak situation. In addition, partnerships on projects could take advantage of the NBAF Biologics Development Module.

ARS is requesting an additional \$27.5 million for FY 2020, which consists of \$20 million for operations and maintenance of the new facility under USDA ownership, and \$7.5 million for ARS' science program transition activities. In addition to this funding, ARS is requesting a \$3 million increase for partnership and innovation activities. Each agency will require additional funding as we near closer to when the facility is fully operational, anticipated to be December 2022. Without the necessary funding, the program would not be able to transition these functions and the timeline would be delayed. All costs are closely associated with and largely dependent on the DHS timeline for construction, commissioning, and select agent registration. Therefore, it will be critical to allocate these funds as no-year funds.

- 10) A decrease of \$779,000 for the Zoonotic Disease Management program (\$16,523,000 and 64 staff years available in 2019).

The Zoonotic Disease Management (ZDM) program collaborates with local, State, Tribal, national and international partners to promote healthy animals, people, and eco-systems by addressing zoonotic diseases. This collaborative approach is known as “One Health”. Zoonotic diseases are those that pass between animals and people. APHIS provides leadership in addressing the animal health component of One Health by contributing animal health expertise, infrastructure, networks and systems to collaborate with local, State, Tribal, national and international partners. Program personnel develop strategies, policies, and training to help animal health stakeholders effectively engage with public health counterparts, provide guidance, facilitate information exchange, and enhance responses to One Health issues. By enhancing the ZDM program's efforts to address the animal health component of One Health, APHIS is can protect animal health and marketability, while also promoting public health.

In collaboration with other One Health partners, the program provides leadership to address the animal health components of zoonotic diseases. For example, according to a 2011 Centers for Disease Control and Prevention analysis *Salmonella* bacteria causes an estimated 1.2 million human illnesses, 19,000 hospitalizations, and 370 deaths annually in the United States. It has been estimated that *Salmonella* infections transmitted through animal contact cause 11 percent of all salmonellosis annually. In FY 2018, APHIS collaborated with Centers for Disease Control and State Departments of Public and Animal Health to investigate several multistate outbreaks of human *Salmonella* infections linked to contact with live poultry in backyard flocks, especially chicks and ducklings obtained from mail-order hatcheries. These outbreaks resulted in a total of 334 people infected with the outbreak strains of *Salmonella* reported from 47 States. To prevent infections linked to live poultry, APHIS applied a One Health approach for control and prevention. This approach unifies animal and human health needs and considers the environments at the hatcheries where poultry are produced, the agricultural retail stores where poultry are sold, and the customers who own and raise poultry.

APHIS also partners with the Food and Drug Administration (FDA) to develop practical mitigation strategies to limit or reduce the prevalence of antimicrobial resistance (AMR). AMR is the ability of a microbe in an animal to resist the effects of medication previously used to treat them. The ZDM program works with State and Federal partners, veterinarians, and producers to promote the judicious use of antimicrobials, which will support a strong, healthy, and thriving U.S. animal agriculture system. This work includes surveillance at the farm level, collection of antimicrobial drug use data, and efforts to promote stewardship of antimicrobial drugs by animal owners and veterinarians. In FY 2018, the program completed two studies of on-farm antimicrobial use and stewardship: one on swine operations, and one on cattle feedlot operations. The program will use data collected from these studies as a benchmark for studying changes in antimicrobial use over time related to the FDA Veterinary Feed Directive. Internationally, the program provided comments on several chapters of the World Animal Health Organization (OIE) Terrestrial Animal Health Code related to AMR. APHIS

also collaborated with the FDA to provide input to the OIE ad hoc group in charge of developing a global database on antimicrobial drug use.

This program supports USDA's goal to maximize the ability of American agricultural producers to prosper by feeding and clothing the world by developing strategies that address zoonotic diseases and reduce AMR prevalence. In FY 2020, APHIS will continue to provide leadership in addressing the animal health component of zoonotic diseases, and collaborate with State and Federal partners, veterinarians, and producers to promote the judicious use of antimicrobials, which will support a strong, healthy, and thriving U.S. animal-agriculture system as well as public health.

Overall, base funding for the ZDM program currently supports salaries and benefits, as well as other normal operating expenses such as travel, supplies, equipment, and rent, and utilities to conduct program activities.

a) A decrease associated with AMR activities (-\$779,000)

APHIS requests a decrease associated with on-farm surveillance of AMR. At the requested funding level, APHIS will continue to promote judicious use of antibiotics, and leverage remaining resources across agencies in the areas of surveillance, research, education, and extension/outreach.

B) A decrease of \$7,364,000 and an increase of 30 staff years for Safeguarding and Emergency Preparedness/Response – Plant Health

1) Agricultural Quarantine Inspection program (\$31,330,000 and 372 staff years available in 2019).

APHIS conducts predeparture agricultural quarantine inspections of passengers and cargo traveling from Hawaii and Puerto Rico to the continental United States to prevent the introduction of non-native agricultural pests and diseases into the mainland. Hawaii and Puerto Rico have pests and diseases harmful to agriculture that are not established in the continental United States. For example, a variety of economically devastating fruit flies – particularly the Mediterranean fruit fly (Medfly) and Oriental fruit fly – and scale pests are present in Hawaii, and Puerto Rico experienced its first Medfly outbreak in FY 2015, along with an outbreak of the old world bollworm. Plant and plant products such as fruits and other commodities can easily carry these pests long distances and would cause significant economic damage to the mainland United States. In addition to the citrus industry that may be at risk (with a production value of more than \$3 billion, according to USDA's National Agricultural Statistics Service, Citrus Fruits 2018 Summary), cut flower and nursery stock production is also at risk from the pests and diseases present in Hawaii and Puerto Rico. Additionally, two significant cotton pests, pink bollworm and the cottonseed bug, are present in Puerto Rico and could be brought into the United States on cargo shipments without an effective inspection program. The pre-departure inspection program facilitates tourism and agricultural trade between Hawaii and Puerto Rico and the mainland United States while protecting farmers and producers in the continental United States from the entry of various plant pests and diseases.

Because of the significant risks associated with numerous fruits, vegetables, and other plant products from Hawaii and Puerto Rico, APHIS inspects all baggage of passengers leaving these islands (approximately 11.9 million passengers in FY 2018). The program has maintained a passenger compliance rate of more than 97 percent for the last several years. APHIS conducts these activities as the national plant health regulatory authority in the United States charged with protecting the health and value of agricultural resources. With respect to commercial cargo, the program oversees treatments and conducts inspections in Puerto Rico for mangoes, cotton, tomatoes, cut flowers, and a variety of other commodities to allow them to be transported and sold in the continental United States. In Hawaii, the program oversees treatments for and inspects a variety of commodities destined for the continental United States, including papayas, bananas, sweet potatoes, herbs such as basil, cut flowers, and ginger root.

The Agriculture Quarantine Inspection (AQI) program keeps interstate trade flowing smoothly and safely and allows for efficient processing of tourists, protecting both the economies of Hawaii and Puerto Rico and the agricultural health of the continental United States. The program reduces the impact of agricultural pests and diseases on farmers in the continental United States, minimizing production losses and pest control costs and preserving export markets for U.S. agricultural products. Without this program, the risk of pest or disease introduction from Hawaii and Puerto Rico to the

mainland United States would greatly increase. Additionally, many commodities would not be allowed entry to the continental United States without the inspections and treatments provided by the program, impacting Hawaiian and Puerto Rican producers. Maintaining the safeguards this program provides is essential, especially considering the increasing U.S. consumer demand for year-round fruits and vegetables.

The AQI program supports USDA's goal of maximizing the ability of American agricultural producers to prosper by feeding and clothing the world through preventing the spread of pests and diseases to new areas and through facilitating the movement of commodities in interstate trade.

Overall, base funding for the AQI program currently supports salaries and benefits of inspectors and other staff, as well as normal operating expenses such as rent, utilities, travel, and supplies to conduct program activities.

- 2) A decrease of \$4,520,000 for the Cotton Pests program (\$11,520,000 and 51 staff years available in 2019).

The Cotton Pests program, in cooperation with States, the cotton industry, and Mexico, works to eradicate the boll weevil and pink bollworm (PBW) from all cotton-producing areas of the United States and northern Mexico. For decades, these pests have cost cotton growers tens of millions of dollars each year in control costs and crop losses. APHIS provides national coordination, operational oversight, technology development (such as sterile PBW moths), and a portion of program funding. APHIS' partners have provided more than two-thirds of the funding for the boll weevil eradication effort and most of the operational funds for PBW eradication.

The program also maintains capabilities to address other cotton pests that could enter the United States. In addition, APHIS provides technical advice on trapping and treatment protocols to its partners in Mexico to aid their efforts to eradicate boll weevil and PBW. Without continued Federal funding, support and technical expertise for the final phase of the program, eradication would not be possible and previously eradicated cotton acreage would be vulnerable to reinfestation. Additionally, U.S. cotton production may be at risk of new pests approaching the country through the Caribbean Basin and Mexico.

APHIS' Cotton Pests program, along with the States and the cotton industry, have cooperatively eradicated BW from 99.5 percent of the 11 million acres of U.S. cotton. The last remaining affected area in the United States is a portion of the Lower Rio Grande Valley (LRGV) in Texas. The LRGV is the last zone within the United States where active boll weevil eradication efforts continue due to the neighboring Mexican cotton producing state of Tamaulipas and the area's security issues. In FY 2020, APHIS will continue to reduce the boll weevil population in the LRGV and partner with the U.S. cotton industry on boll weevil surveillance efforts for all U.S. cotton production. In addition, APHIS will continue to partner with the Mexican boll weevil eradication program to provide technical assistance and funding for their parallel program to the LRGV program.

APHIS' Cotton Pests program also partners with States and industry to address PBW. After many years of addressing PBW. On October 19, 2018, U.S. Secretary of Agriculture Sonny Perdue, in conjunction with industry partners, officially announced the successful eradication of PBW from all commercial cotton-producing areas in the continental United States. APHIS will continue to work with the U.S. cotton industry post-PBW eradication to monitor, at a lower level, the Southwest part of the United States to ensure the program quickly detects and addresses any potential reintroductions of the pest.

The program supports USDA's goal of maximizing the ability of American agricultural producers to prosper by feeding and clothing the world. According to the National Cotton Council of America, where boll weevil has been eradicated, the combined annual direct economic benefits from increased yields, reduced insect damage and lower insect control costs are more than \$80 million. The value of this permanent stream of benefits exceeds \$1.2 billion.

Overall, base funding for the Cotton Pest program currently supports salaries and benefits, cooperative agreements and programmatic contracts, as well as other normal operating expenses such as travel, rent, and utilities to conduct program activities.

- a) Reduction for program activities (-\$4,520,000)
- APHIS is requesting a decrease of \$4.520 million for the Cotton Pests program since the program declared eradication of PBW and will require fewer resources. The Agency will continue to monitor for the presence of PBW and maintain a sterile PBW moth colony in case a reinfestation occurs. The program will also use remaining funding to continue to address the boll weevil in areas of Texas near the border with Mexico.
- 3) A decrease of \$1,517,000 and 5 staff years for the Field Crop and Rangeland Ecosystem Pests program (\$9,326,000 and 77 staff years available in 2019).

The Field Crop and Rangeland Ecosystem Pests (FCREP) program protects U.S. agricultural crops and rangelands from the establishment or spread of invasive or economically significant pests. In doing so, it facilitates safe international trade and domestic commerce, preserves economic opportunities for U.S. farmers and ranchers, and fosters healthy ecosystems in rangelands and other areas. APHIS conducts survey and suppression activities in western States to reduce grasshopper and Mormon cricket (GMC) infestations that could cause significant economic losses for livestock producers by requiring them to buy supplemental feed or sell their livestock at reduced prices. In addition, the Agency develops treatments for land managers to remove imported fire ant (IFA) from their products and prevent re-infestation; conducts regulatory activities to prevent Karnal bunt (KB) and IFA from “hitchhiking” on regulated articles (i.e., nursery stock and farm equipment) to uninfested areas of the United States and foreign countries through trade; and, conducts survey, treatment, and regulatory activities for witchweed infestations in North and South Carolina to protect U.S. corn production. This program directly protects more than 230,000 acres of wheat and corn worth more than \$18 million. It indirectly protects all U.S. wheat and corn production, which was worth approximately \$57 billion in 2017 (National Agricultural Statistics Service, USDA, Quick Stats), from the spread of KB and witchweed.

When grasshopper populations reach outbreak levels, they can decimate grasslands. APHIS’ GMC program monitors and protects 661 million acres of rangeland each year worth a total of nearly \$8.7 billion according to a 2012 economic analysis University of Wyoming researchers prepared through a cooperative agreement with APHIS. Each year, APHIS conducts surveys in 17 States for GMC, collecting data at more than 28,000 survey points in FY 2018, to determine where potential outbreaks could occur and where treatments might be necessary. The program also addresses witchweed, a parasitic plant that can significantly damage corn, sorghum, and sugarcane. If witchweed were to spread throughout the Corn Belt, crop yields for corn and sorghum could decrease by 10 percent and trade in commodities from these areas could be negatively impacted. Predictive models published in scientific journals, suggest that APHIS’ IFA program is preventing up to 10 additional States from becoming infested. APHIS will continue conducting annual surveys and other activities to manage these pests in FY 2020.

Additionally, as part of the FCREP program, APHIS coordinates an annual voluntary survey of the grain delivered to elevators to check for KB across the country and conducts regulatory activities to prevent the spread of the disease from the remaining infested area in Arizona. Based on the program’s quarantine and survey data, APHIS issues export certificates that are required by countries importing U.S. wheat. These certificates demonstrate to trading partners the safety of U.S. wheat exports, retaining export markets and facilitating wheat movement into international markets. If KB funding was eliminated, the disease could enter the grain market system and directly impact almost every State. Many trading partners will not accept U.S. wheat exports unless the commodity is certified to be from areas where KB is not known to occur. Working with cooperators, APHIS has reduced the wheat production areas regulated for KB from all or portions of four States to approximately 190,292 acres in Arizona since 1996. APHIS will continue survey and regulatory activities aimed at keeping KB from causing damage and/or trade disruptions in FY 2020.

The FCREP program supports USDA’s goal to maximize the ability of American agricultural producers to prosper by feeding and clothing the world through its efforts to prevent these pests and diseases from impacting agricultural production or trade.

Overall, base funding for the FCREP program currently supports salaries and benefits, cooperative agreements, and programmatic contracts. Other funding supports normal operating expenses such as rent, utilities, travel, supplies, and equipment to conduct program activities.

- a) Reduction for Grasshopper and Mormon Cricket and Roseau cane activities (-\$1,517,000 and 5 staff years)

APHIS requests a reduction of \$1,017,000 to reduce grasshopper and Mormon cricket activities in FY 2020. Because the number of treatments required varies each year depending on factors such as rainfall and temperature, as well as GMC population levels, the program can sustain a reduction.

APHIS also proposes to remove \$500,000 for control of pests that affect Roseau cane in the Mississippi River Delta wetlands. APHIS is using the funding Congress provided in FY 2018 for a 2-year agreement with Louisiana State University, which will be completed in FY 2020.

- 4) Pest Detection program (\$27,446,000 and 190 staff years available in 2019).

The Pest Detection program serves as the early warning system for the detection of plant pests of economic and environmental significance in the United States. The program helps farmers and producers by documenting the status (or absence) of plant pests and diseases that could impact trade opportunities, both interstate and international. It also helps APHIS' state-level partners by providing funding and infrastructure to conduct surveys for high-risk pests that may affect their state. The information the program collects provides the basis for APHIS' emergency response and regulatory efforts that preserve economic opportunities for farmers and safeguard U.S. agricultural and natural resources. Specifically, the program identifies and prioritizes plant pest and disease threats; develops scientifically sound pest survey protocols; procures essential survey materials (traps, lures, etc.); cooperates with State partners to conduct the pest surveys; and, shares data with States about significant pest detections.

APHIS provides national coordination for the program and develops policies and procedures for commodity-based and resource-based pest surveys. These surveys enable APHIS and cooperators to target high-risk hosts and commodities, gather data about pests specific to a commodity, and provide accurate assessments of pest distribution, including pest-free areas. Negative data from program surveys supports U.S. market access for several important commodities by demonstrating that the pests are not present. Examples include data showing that major pests such as the Khapra beetle, a serious pest of wheat and grain, and the European grapevine moth, a pest of grapes, are not present in the United States. Additionally, while many entities are involved in protecting crops and resources, APHIS' role is to verify that U.S. products do not pose risks to other countries. For example, when a survey first detected the pale cyst nematode in Idaho, the program had data demonstrating negative survey results in other potato-producing states that kept export markets open for U.S. potatoes. According to the USDA National Agricultural Statistics Service (NASS), the value of the market that remained open was \$239 million in 2017 (NASS Crop Values 2018 Summary). Without funding, APHIS would be unable to conduct surveys for high-risk pests or provide funding to cooperators for these surveys. As a result of APHIS' funding, highly skilled, national cadres of surveyors are in the field on a daily basis looking for high-risk pests. In FY 2018, the program and its cooperators conducted surveys in 52 States and territories for 259 individual pests, pathogens, and noxious weeds. The program also conducted 273 commodity- and taxon-based surveys, with an average of more than five pests per survey. APHIS and State cooperators conduct surveys for multiple pests at each location for efficiency and economy of survey.

Early pest detection is important to avert economic and environmental damage; once a pest becomes established or spreads significantly, the mitigation costs can reach millions of dollars, in addition to lost farm revenues and damage to ecosystems. The Pest Detection program communicates and develops partnerships through cooperative agreements with State departments of agriculture and natural resources, universities, industry partners, tribal and local governments and communities, non-profit organizations, and individuals in all 50 States.

The program supports USDA's goal of maximizing the ability of American agricultural producers to prosper by feeding and clothing the world by helping to support exports and detecting the presence of new pests and diseases before they can spread and cause damage.

Overall, base funding for the Pest Detection program currently supports salaries and benefits, and cooperative agreements, as well as other normal operating expenses such as travel, rent, utilities, and supplies to conduct program activities.

- 5) Plant Protection Methods Development program (\$20,686,000 and 131 staff years available in 2019).

The goal of the Plant Protection Methods Development (PPMD) program is to develop scientifically viable and practical tools for exotic plant pest exclusion, detection, and management. The program plays an essential role in APHIS' mission by developing tools for the detection of exotic plant pests in survey programs; developing molecular diagnostic tests and identification tools for pest identification; developing integrated pest management methods, including biological control, to help eradicate or manage invasive pests; and developing treatments to support interstate and international trade.

APHIS' nationwide pest detection surveys and pest management programs depend on accurate and effective tools. The PPMD program supports development of pest trapping, identification, and survey technologies. Digital pest identification tools and molecular diagnostics developed through PPMD funding supports both domestic programs and import pest identification responsibilities. APHIS uses these tools to conclusively identify exotic species introductions in order to take appropriate regulatory actions. The program also develops pest management techniques that APHIS national programs use to manage or eradicate invasive pest threats.

The PPMD program aims to develop new, or improve existing, tools each year to enhance APHIS' safeguarding capabilities. For pest identification, the program continues to design, develop, and deliver digital, media-rich, identification tools for APHIS to support trade and domestic, port, and offshore pest identification responsibilities. In FY 2018, the Agency released new and updated products to identify exotic bees, invasive aquatic weeds, and noxious weed seeds. The program also enhanced the imageID tool to assist with the identification of pests intercepted at ports, adding more than 15,000 images in FY 2018 for a total of 130,000 images.

The PPMD program also maintains its own quarantine and/or rearing facilities for biological control agents in Arizona, California, Colorado, Massachusetts, Michigan, Texas, and Guatemala. APHIS partners with USDA's Agricultural Research Service, the U.S. Fish and Wildlife Service, State departments of agriculture, universities in 30 States and territories, and 2 Native American Tribes, to evaluate and establish biological control agents for invasive plants, pests and diseases. Some key program targets include Asian citrus psyllid, brown marmorated stink bug, emerald ash borer, Asian longhorned beetle, hemlock woolly adelgid, spotted wing drosophila, mile-a-minute-weed, Dalmatian toadflax and Russian knapweed. As of the end FY 2018, the program's rearing facility in Mission, Texas produced a cumulative total of 8.9 million biological control agents targeting the Asian citrus psyllid since releases began in 2011. Before the release of agents in South Texas, 43 immature psyllids per survey were found on citrus in residential areas. After biological control releases began, the presence of psyllids has gradually decreased. As a result, the program detected only three immature psyllids per survey, representing a 93 percent reduction of insect population.

The program supports USDA's goal of maximizing the ability of American agricultural producers to prosper by feeding and clothing the world by developing tools to preserve economic opportunities for farmers and industries that engage in interstate commerce and international trade, and safeguard U.S. agricultural and natural resources from invasive plant pests. In FY 2020, the program will continue working to develop new tools and pest detection methods for the highest priority pests and diseases.

Overall, base funding for the PPMD program currently supports salaries and benefits, contracts, and agreements, as well as other normal operating expenses such as travel, rent, and supplies to conduct program activities.

- 6) A net decrease of \$1,327,000 and an increase of 35 staff years for the Specialty Crop Pests program (\$178,170,000 and 718 staff years available in 2019).

The Specialty Crop Pests (SCP) program protects U.S. farmers and producers of fruits and vegetables, tree nuts, horticulture, and nursery crops from adverse impacts associated with invasive pests, such as crop damage or threats to international trade and interstate commerce. APHIS works in coordination with State, Tribal, university, and industry partners to prevent or mitigate impacts from invasive pests of Federal regulatory significance. These efforts promote the ability of U.S. farmers and producers to export their products, prevent damage to specialty crop production, and protect natural resources, including forests and residential landscapes. Specialty crops are grown in all 50 States, and they have a high economic value. APHIS' SCP program directly protects production (including citrus, grapes, potatoes, nursery stock, and tree fruit) worth more than \$9.4 billion in FY 2017, based on internal

analysis using data from the USDA's National Agricultural Statistics Service (NASS) and its Census of Agriculture. APHIS is currently using SCP resources to address the following pests and diseases: exotic fruit flies, a variety of citrus pests and diseases, pale cyst nematode (PCN), light brown apple moth (LBAM), plum pox virus (PPV), European grapevine moth (EGVM), glassy-winged sharpshooter (GWSS), and spotted lanternfly (SLF), among others.

The SCP program partners with affected industries, States, Tribes, academic institutions, and other Federal agencies to deliver domestic programs. Additionally, the program works with its counterparts in foreign countries to address pest risks offshore. For example, the SCP program works with Mexico and Guatemala to mitigate the risk of exotic fruit flies entering the United States. The program has kept the United States free of Mediterranean fruit fly (Medfly) and Mexican fruit fly (Mexfly) for many years by conducting preventative releases of sterile insects to disrupt normal population growth in at-risk areas; detecting and responding to outbreaks when they occur; and maintaining a barrier against the natural spread of the Medfly in Mexico and Central America. Records indicate that Medfly has infested 300 cultivated and wild fruits. The Mexfly also has a wide-ranging host list and presents a particular threat to the Texas citrus industry due to its proximity to infested areas in Mexico. APHIS and cooperators maintain 160,000 fruit fly traps in vulnerable areas to ensure that any introductions of exotic fruit flies are detected quickly. In FY 2018, the program responded to seven new exotic fruit fly outbreaks. Without the program's efforts to detect and eradicate these outbreaks when they occur, many important crops would become impossible to grow due to fruit fly infestations. APHIS will continue activities to prevent, detect and respond to any outbreaks that occur in FY 2020.

APHIS also works with citrus producing States and industry groups to support industry's ability to grow and market U.S. citrus despite the presence of devastating diseases such as citrus greening, or huanglongbing (HLB). Through the Citrus Health Response Program, APHIS supports cooperators' in citrus producing States with the on-the-ground operations, such as surveys, regulatory inspections, and outreach to affected growers and the public, as well as methods development activities at other USDA agencies. APHIS conducts inspections of Florida citrus shipments destined for export to the European Union and other countries, allowing citrus producers to take advantage of export opportunities. Because of the ongoing threat HLB poses, APHIS, other Federal agencies, State partners and the citrus industry work together on the HLB Multi-Agency Coordination (MAC) group to identify and implement tools to combat the disease. The MAC Group has funded research to quickly identify practical tools that can aid the citrus industry to combat HLB. Growers and commercial firms are using one in three of the tools funded through HLB-MAC projects. APHIS is hopeful that the solutions found through this effort will continue to help citrus growers manage the disease, while research into long-term solutions for HLB continues. APHIS will continue to address HLB and other citrus diseases in FY 2020.

While Federal response activities take place in concentrated areas where the infestations occur (e.g., PCN in Idaho or LBAM in California), they also protect all at-risk States producing specialty crops. For example, the SCP program works to address the PCN in Idaho and conduct nationwide surveys for the pest. The nationwide survey demonstrates to trading partners that potato producing areas outside of the quarantined area are not affected by PCN, protecting fresh potato export markets worth \$239 million in FY 2017 (NASS' Crop Values 2017 Summary). The program also addresses PPV in New York. PPV is a devastating viral disease of stone fruit and addressing it in New York protects more than 1 million acres of stone fruit across the United States. Without the SCP program, a variety of export markets for U.S. specialty crops would be at risk—the program protected trade worth more than \$8.9 billion in 2017.

To protect the U.S. grape and wine industries, APHIS has partnered with California grape growers to eradicate EGVM and prevent the spread of GWSS into grape-producing areas. In the collaborative effort against EGVM, APHIS provided funding, expertise, and operational support for surveys and regulatory efforts to find and prevent the spread of the target pests, while industry funds and conducts the necessary control treatments (with technical guidance from APHIS and State officials). APHIS and its' State, county, and industry partners declared EGVM eradicated in FY 2016, following an intensive, 6-year cooperative effort. Eradicating this pest dramatically lowers growers' production costs and protects or expands export opportunities. Continued surveys help APHIS ensure that this pest is not present and protect the Federal and industry investment in the eradication effort.

The SCP program supports USDA's goal of maximizing the ability of American agricultural producers to prosper by feeding and clothing the world through its efforts to prevent and mitigate the damage caused by pests and diseases that affect fruit and vegetable, nursery stock, and nut production.

Overall, base program funding supports salaries and benefits, cooperative agreements, as well as other normal operating expenses such as supplies, equipment, and rent to support program activities.

- a) Increase of \$7,000,000 and 35 staff years for spotted lanternfly control efforts.

APHIS and Pennsylvania first detected and addressed the spotted lanternfly (SLF), an invasive insect that damages many types of fruit and ornamental trees, in 2014 in the southeastern portion of Pennsylvania. Using emergency funds from the Commodity Credit Corporation in FY 2018, the program expanded intensive survey and control efforts targeting the pest in Pennsylvania after determining that the pest population was expanding. Through these activities, APHIS and cooperators conducted intensive surveys to determine the magnitude of the infestation and found that it extends into New Jersey, Delaware, and Maryland. APHIS is also addressing a smaller infestation in Virginia. In FY 2018, the program conducted visual surveys at more than 34,000 points (each survey point consists of five or more trees in a given location) to determine the outer edge of the infestation. Following the visual surveys, APHIS assessed 4,187 properties covering 22,975 acres and completed treatments on 339 properties covering more than 13,000 trees. This \$7 million request would allow APHIS to continue these efforts to control SLF and prevent the pest from affecting specialty crop production areas with apples and grapes. The affected States have approximately 34,000 acres of apple production with a value of \$211 million in 2017 and 16,300 acres of grape production valued at more than \$44 million in 2017 (NASS QuickStats).

- b) Reduce Federal funding for specific pest and disease programs (-\$8,327,000)

APHIS is requesting decreases totaling \$8,327,000 to reduce the Federal contributions towards specific pest and disease programs. State and industry partners are beneficiaries of these programs, and APHIS will shift certain activities to program partners for a more equitable share of program costs. The reductions consist of the following:

Reduction of \$4.327 million for the Glassy-winged Sharpshooter Program, reducing the Federal portion of the program from 53 percent to 42 percent.

Reduction of \$3 million for the European Grapevine Moth Program, reducing the Federal portion of the program from 100 percent to approximately 55 percent.

Reduction of \$1 million for the Pale Cyst Nematode Program, reducing the Federal portion of the program from 97 percent to approximately 82 percent.

- 7) Tree and Wood Pests program (\$56,000,000 and 301 staff years available in 2019).

America's forests are valuable resources that provide jobs and recreation opportunities and create habitat for wildlife. They provide economic opportunities and ecosystem services worth an estimated \$1.2 trillion. Through the Tree and Wood Pests (TWP) program, APHIS addresses devastating pests such as the Asian longhorned beetle (ALB), emerald ash borer (EAB), and European gypsy moth (EGM). Numerous native hardwood tree species that are common throughout U.S. forests and urban landscapes are hosts to these pests. When forest pests like EAB kill large numbers of trees in urban and suburban areas, they can cause tremendous, wide-ranging impacts to communities, landscapes, and commerce. In addition, exports of forest products such as logs and timber could be at risk due to trade restrictions put in place by other countries. Nationwide, APHIS programs protect 596 million acres of forested land by preventing the spread of damaging pests. Without Federal funding, forest pests would spread more rapidly throughout the United States, and responding to newly introduced pests would become increasingly difficult.

APHIS cooperates with State and local agencies and organizations in 48 States to conduct various activities to manage and, when feasible, eradicate forest pests. These activities include conducting surveys, implementing control measures, developing methods and processes to combat pests, and conducting outreach efforts to prevent pest spread. APHIS' role in the TWP program is to oversee the regulatory framework to prevent the human-assisted movement of these pests and to provide national oversight and coordination for program activities to detect and eradicate or manage the pests. In FY

2020, APHIS will continue addressing ALB outbreaks in Massachusetts, Ohio, and New York and pursuing biological control options as a long-term EAB management strategy. In addition, APHIS, along with the Forest Service and the EGM Slow-the-Spread Foundation, will continue to work to slow the spread of EGM and eradicate isolated populations, keeping this pest from becoming a larger issue.

Overall, base funding for the TWP program currently support salary and benefits, contracts, and cooperative agreements, as well as other normal operating expenses such as rent, supplies, travel, and equipment to conduct program activities.

C) Safeguarding and Emergency Preparedness/Response – Wildlife Services

1) Wildlife Damage Management program (\$108,376,000 and 589 staff years available in 2019).

The Wildlife Damage Management (WDM) program resolves human/wildlife conflicts and protects agriculture, human health and safety, personal property, and natural resources from wildlife damage and wildlife-borne diseases in the United States. This program protects livestock from predators, manages damage from invasive species, such as feral swine and brown tree snakes; conducts a national rabies management program; and manages damage, conflicts and zoonotic diseases that various wildlife species cause, such as beavers, double crested cormorants, and other migratory birds. APHIS conducts these activities under the authority of the Animal Damage Control Act, which allows the Agency to control mammals and birds that are a nuisance or serve as reservoirs for zoonotic diseases. These activities benefit farmers, ranchers, other private landowners, businesses, and Federal, State, county, and city government offices. APHIS carries them out with appropriated funding the Agency receives as well as funding from other Federal, State and local cooperators. Regarding the protection of agriculture, APHIS prevents and reduces livestock predation through technical and direct control assistance provided to producers. The Agency's cost-benefit analyses have shown that for each dollar spent on livestock protection, APHIS saves producers between \$2 and \$7 in losses. In FY 2018, under a fully operational program, the Agency helped producers protect approximately 15.8 million head of livestock. APHIS maintains specially trained staff around the nation to provide direct control assistance, which can be necessary when the problem cannot be resolved through technical assistance. In those situations, APHIS provides direct control through on-site wildlife management using methods and approaches to solve the specific wildlife conflict.

In FY 2018, APHIS responded to 72,458 requests for technical assistance, and will continue to support cooperators by providing technical assistance in FY 2020. For example, if a rancher is experiencing predators killing his cattle and sheep, or if a farmer is having trouble with fish-eating birds damaging their catfish and other aquaculture crops, the Agency will provide technical assistance. This could include providing advice, information, recommendations, and materials (and in some cases the necessary equipment) to the producer, farmer or rancher to resolve the wildlife-caused damage themselves.

In the Southeastern United States and Northern Great Lakes area, double-crested cormorants continue to impact both sport fisheries and aquaculture production. In FY 2020 APHIS employees will continue to assess damage to catfish rearing facilities, recommend depredation control permits for aquaculture producers, and provide direct assistance to producers by dispersing cormorant roosts from these facilities. The agency selectively removes some birds to alleviate damages and works in conjunction with the U.S. Fish and Wildlife Service to develop longer term solutions that allow producers to conduct their own control work.

Rabies management remains a significant effort for protection of wildlife, livestock and human health. According to the Centers for Disease Control and Prevention, approximately 90 percent of reported rabies cases in the United States are in wildlife. APHIS continues to serve as the lead Federal agency to prevent the further spread of wildlife rabies, with the goal of eliminating rabies in carnivores in the United States using the oral rabies vaccination program. This program has led to the elimination of canine rabies in coyotes in the United States, the near elimination of gray fox rabies from Texas, and the containment of raccoon rabies in the eastern United States. Each rabies variant is spread predominantly by one wildlife species, but all variants can infect and kill mammals, including humans if left untreated. Societal and environmental changes are leading to more chances for people and pets to be exposed to wildlife, particularly in urban and suburban areas. In FY 2018, APHIS and cooperators distributed nearly 10 million oral rabies vaccine baits: 9 million was in the eastern

United States to combat raccoon rabies, and 1 million was in Texas to prevent the reemergence of rabies in coyotes and gray foxes along the border with Mexico.

APHIS' wildlife disease biologists provide technical assistance, conduct surveillance, and maintain control of more than 40 wildlife diseases, pathogens, and syndromes, as well as collaborate with domestic and international academic and research institutions regarding wildlife disease surveillance. Ongoing surveillance of avian influenza in wild bird populations is critical to manage and determine threats to the U.S. poultry industry. By providing these specialized and coordinated services, APHIS supports USDA's goal of maximizing the ability of American agricultural producers to feed and clothe the world.

APHIS protects natural areas and native wildlife from invasive species, such as feral swine. APHIS' National Feral Swine Damage Management Program has made significant progress in its first four years of implementation. In FY 2018, APHIS conducted cooperative, cost-share operational programs on approximately 192 million acres in 39 States and 3 Territories, directly protecting 93 threatened and endangered species and habitats. These efforts support the Agency's goal to reduce the estimated \$2 to \$2.5 billion of feral swine damage in the United States each year. In the last four years of the program, APHIS and partners successfully eliminated feral swine from seven States -- Idaho, Maryland, Minnesota, New Jersey, New York, Washington and Wisconsin. In FY 2018, APHIS monitored these States to ensure feral swine do not reestablish themselves in those areas and conducted disease surveillance and monitoring to protect the health of domestic swine. In FY 2020, the Agency will continue to provide surveillance and monitoring in States.

Overall, base funding for the WDM program currently supports salary and benefits, supplies, and equipment, as well as other normal operating expenses such as cooperative agreements, rent, and travel, to conduct program activities.

a) National Feral Swine Program

APHIS established the National Feral Swine Damage Management program in FY 2014 to minimize the impacts of feral swine damage. APHIS partners with other Federal, State, and local entities to achieve the overall program goals. Since the agency established the program, APHIS and its partners have successfully eliminated feral swine from seven States. APHIS continues to monitor these States to ensure feral swine do not reestablish themselves in those areas and conduct disease surveillance and monitoring to protect the health of domestic swine.

Additionally, APHIS has been successful in eliminating feral swine through localized, accelerated projects, which are designed to quickly reduce a feral swine population in an area of high density. In FY 2020, APHIS will use approximately \$30 million of the line item to support the effort.

2) Wildlife Services Methods Development program (\$18,856,000 and 125 staff years available in 2019).

The Wildlife Services Methods Development (WSMD) program works with cooperators to conduct research to develop and implement socially responsible methods to prevent and mitigate damage caused by wildlife and invasive species on agricultural productions, and to detect and prevent wildlife diseases that may impact animal health and agricultural biosecurity. APHIS provides the only dedicated Federal leadership in managing wildlife problems and developing methods to resolve human-wildlife-agricultural conflicts. These methods enable APHIS, cooperators, and individuals to protect crops, livestock, natural resources, property, and public health and safety.

Many non-lethal methods that Federal, State, and private sector wildlife professionals use today stem from APHIS' research. In FY 2018, APHIS' National Wildlife Research Center (NWRC) initiated 151 new studies and published 175 scientific papers in 85 professional scientific journals. NWRC scientists also made 248 presentations to scientific and stakeholder audiences. Examples of methods developed include a potential new toxicant and delivery system for managing feral swine populations; a repellent application for blackbirds who cause extensive crop damage and lower yields at harvest for sunflower growers; and modifying an effective non-lethal tool for managing wolves to be an effective method for coyote control. Each of these examples has reduced damage to property, agriculture, human health and safety, and/or native wildlife and ecosystems.

Additionally, the WSMD program develops data to register products that enable the private sector to further manage human-wildlife conflicts. An example of this type of technology transfer is the APHIS' registration of a contraceptive to control the white-tail deer population with the U.S. Environmental Protection Agency and the Food and Drug Administration. The program also explores ways to reduce the spread and transmission of zoonotic diseases and develops disease diagnostic methods. In FY 2018, NWRC research determined the prevalence of antimicrobial resistance (AMR) bacteria in raccoons and deer mice in feedlots and determined that raccoons have the potential to be a carrier of AMR bacteria to and from feedlots. In addition, the program develops strategies to monitor wildlife pathogens, assesses risks to agriculture and human health and safety, and assists APHIS' operational programs with surveillance and monitoring.

The program supports USDA's goal to maximize the ability of American agricultural producers to prosper by feeding and clothing the world by developing and evaluating new tools and strategies to manage wildlife damage, including managing the expanding feral swine population, registering safe toxicants, and developing new methods for improving trapping and oral bait delivery systems. These methods are essential to cooperators and preserve businesses and regional employment opportunities. In FY 2020, the WSMD program will continue to serve as an international leader in non-lethal research to reduce wildlife damage.

Overall, base funding for the WSMD program currently supports salary and benefits, contracts, and cooperative agreements, as well as other normal operating expenses such as, supplies, equipment, travel, and rent to conduct program activities.

D) Safeguarding and Emergency Preparedness/Response – Regulatory Services

- 1) Animal Plant Health Regulatory Enforcement program (\$16,224,000 and 116 staff years available in 2019).

The Animal and Plant Health Regulatory Enforcement (APHRE) program provides investigative, enforcement, and regulatory support services to the Agency's four regulatory programs and Agricultural Quarantine Inspection activities carried out through the Department of Homeland Security's Customs and Border Protection. APHRE investigates alleged violations of Federal laws under its jurisdiction and pursues appropriate enforcement actions through administrative, civil or criminal procedures.

The APHRE program ensures compliance through comprehensive investigations, sound enforcement actions, and strong educational efforts. The program uses monetary penalties and alternative enforcement actions, including non-monetary settlement agreements, and works with USDA's Office of the Inspector General and Office of the General Counsel, and/or the U.S. Department of Justice to pursue administrative, civil, or criminal action, as appropriate, in response to alleged violations of APHIS-administered laws. Program activities serve to deter individuals and companies from engaging in acts to cause extensive economic damage and/or excessive expenses related to eradication or mitigation efforts designed to protect the American agriculture system. In FY 2018, APHRE initiated 1,237 new cases, issued 274 official warnings, issued 471 pre-litigation settlements resulting in the collection of \$777,333 in stipulated penalties, and obtained administrative orders assessing \$321,699 in civil penalties. The Agency considers a case complete after it issues an official warning or voluntary settlement to which the recipient agrees, finds there is insufficient evidence to support enforcement action, or refers a case to the USDA Office of the General Counsel.

APHIS' regulatory enforcement program supports USDA's goal to maximize the ability of American agricultural producers to prosper by feeding and clothing the world as the program's actions help deter practices that may lead to devastating pest and disease introduction.

Overall, base funding for the APHRE program supports salaries and benefits and contracts, as well as other normal operating expenses including travel, supplies, printing, rent, and utilities to conduct program activities.

- 2) Biotechnology Regulatory Services program (\$18,875,000 and 96 staff years available in 2019).

The biotechnology industry—estimated at \$246 billion worldwide—develops innovative products that can greatly benefit the public. Every day, American farmers and consumers benefit from USDA's role in bringing biotech products to the marketplace. On the plant health side, farmers benefit from

genetically engineered (GE) crops through improved yields while consumers benefit from improved traits, such as healthier oils and reduced exposure to potential carcinogens. However, before any of these products can be brought to market, it is essential to demonstrate, through rigorous, scientific review, that they do not pose a risk to America's agricultural and natural resources.

APHIS ensures new GE crops will not pose plant health risks when released into the environment. APHIS' reviews and regulatory determinations support producers of new and innovative GE technologies in their efforts to enter commerce and the worldwide marketplace. These controls instill confidence in the public and in our trading partners that GE products produced in the United States are safe and of the highest quality. According to the USDA Economic Research Service, farmers use biotechnology to grow more than 90 percent of the soybeans, corn, and cotton in the United States.

APHIS ensures that developers, growers, and others take the important steps to prevent unauthorized releases of GE organisms. Depending on the characteristics of the GE organism, the developer files an application in the form of either a permit or a notification. A permit is more restrictive than a notification and is generally issued for GE organisms that may pose a greater plant pest risk. A notification is a streamlined permit for GE organisms that APHIS has familiarity with and are less likely to pose a plant pest risk. In FY 2018, APHIS authorized more than 1,500 permits and notifications in 41 States (plus Puerto Rico) for 130 different species of organisms.

When reviewing notifications and permit applications, APHIS requires that developers are in compliance, meaning they meet conditions to ensure the GE organisms are confined and do not persist in the environment when the field trial is completed. To ensure that GE organisms meet standards outlined in the permit or notification, APHIS inspects fields, equipment, and other facilities. In FY 2018, APHIS and the States (authorized by APHIS) conducted more than 700 site inspections, 43 of which were unannounced inspections. Approximately 92 percent of those inspected were in compliance with APHIS biotechnology regulations.

Once a developer can demonstrate a GE plant does not pose a risk to plant health, the developer can petition for determination of nonregulated status (also known as deregulation) of the plant. In the last five years, APHIS has implemented solutions to significantly improve the efficiency and predictability of the Agency's petition process without affecting the quality of decision-making. In FY 2018, APHIS reviewed and deregulated two petitions - one GE canola and one GE cotton.

APHIS' review and deregulation of these GE crops are essential in making these products available in the marketplace. Agricultural biotechnology gives farmers and producers more tools to address pest, disease, and weed management issues, contributes to the adoption of no-till and low-till practices, and helps safeguard crops against disease. USDA expects the cumulative number of determinations of nonregulated status to increase from 129 in FY 2018, to 135 by the end of FY 2020. In FY 2020, APHIS will continue to devote resources to meet target timelines of 13 to 15 months for petitions that do not require an environmental impact statement. This program supports USDA's goal to maximize the ability of American agricultural producers to prosper by feeding and clothing the world by increasing agricultural opportunities and supporting economic growth.

APHIS takes a coordinated and collaborative approach to ensure the safe development of products derived through genetic engineering. This includes work with the Environmental Protection Agency and the Food and Drug Administration consistent with the principles of the Coordinated Framework for the Regulation of Biotechnology; partnering with the National Plant Board to allow State inspectors to conduct inspections of field release sites, which ensures cost-effective use of resources; working with international partners to enhance the coordination of regulatory approaches for the safe use of GE organisms; and provides capacity building assistance to developing countries for the regulation of GE crops.

Overall, base funding for the BRS program currently supports salaries and benefits, contracts, and agreements, as well as other normal operating costs, such as travel, equipment, and supplies to conduct program activities.

E) Safeguarding and Emergency Preparedness/Response – Emergency Management

- 1) Contingency Fund (\$470,000 and 5 staff years available in 2019).

The APHIS Contingency Fund is the Agency's resource to immediately implement short-term, coordinated, emergency activities that are relatively small in scale and not otherwise supported by the Agency's other appropriated commodity line items. APHIS uses this fund to respond to small, isolated pest and disease outbreaks before they can spread and cause significant economic and financial damage to producers across the United States. Specific examples include addressing outbreaks of the European grapevine moth in California, rabies in the Eastern United States and Texas, contagious equine metritis in Kentucky and other States, giant African land snail in Florida, feral swine in New Mexico, and cattle fever ticks in Texas.

This line item supports USDA's goal of maximizing the ability of American agricultural producers to prosper by feeding and clothing the world by allowing APHIS programs to promptly address small scale outbreaks. By doing so, the Agency decreases the likelihood of pest and disease spread that could cripple otherwise healthy agricultural production systems and export markets.

Overall, base funding for the program currently supports salaries and benefits, equipment, contracts, and agreements, as well as other normal operating costs, such as travel, and supplies to conduct program activities.

2) Emergency Preparedness and Response program (\$40,966,000 and 199 staff years available in 2019).

The Emergency Preparedness and Response (EPR) Program improves APHIS' capability to prevent, prepare for, respond to, and recover from animal and plant health emergencies. Program personnel develop strategies, policies, and procedures for incident management and response coordination that meet national and international standards. The program's goal is to respond to animal health events within 24 hours from the time the Agency decides that it is appropriate to be involved in the response effort. The Agency met this goal in FY 2018 and anticipates continuing to meet this goal in future years. Program personnel participate in joint Federal, State, and local animal health and all-hazards exercises to improve response capabilities and perform reviews afterwards. In addition, the program personnel work with major commodity groups to ensure the continuous movement of livestock products during emergencies. Effective preparation for and rapid response to animal health events requires continuous planning, followed by training and exercises. This program enables APHIS to achieve a high state of readiness and be able to respond rapidly and effectively to emergency events, thus lessening the impact of those events on producers, consumers, taxpayers, and the overall economy. With its expertise and infrastructure, this program is uniquely positioned to coordinate responses at the Federal, State, and local levels, and to disseminate vital animal health information to those who might act. Also through this line item, APHIS and the Centers for Disease Control and Prevention (CDC) jointly manage the Federal Select Agent Program (FSAP), which oversees the possession, use, and transfer of biological select agents and toxins that have the potential to pose a severe threat to public, animal or plant health or to animal or plant products.

The EPR program supports coordinators in each of the 10 Federal Emergency Management Agency (FEMA) regions for Emergency Support Function #11: Agriculture and Natural Resources (ESF #11). These coordinators work with local, State, Tribal, Territorial, Insular Area Governments, and other Federal agencies during actual and potential incidents to respond to animal and agricultural health issues; provide technical expertise to support animal and agricultural emergency management; ensure the safety and defense of the Nation's meat, poultry, and processed egg products; and ensure the protection of natural and cultural resources and historic properties. In addition, APHIS provides technical support to FEMA for the care of pets and service animals during disasters.

The EPR program bolsters and deploys its emergency response capabilities in several ways. For example, the program maintains emergency qualifications system dispatchers, who coordinate the delivery of emergency resources. In FY 2018, APHIS dispatched 1,697 responders to 46 incidents or events, including 11 responses for which FEMA activated ESF #11 coordinators. APHIS dispatched employees to respond to virulent Newcastle disease, spotted lanternfly, European cherry fruit fly, wildlife/tick and highly pathogenic avian influenza (HPAI) surveillance, several oil spill responses, and Hurricanes Maria, Nate, and Florence. The EPR Program also supports the Voluntary Emergency Ready Response Corps, a pool of APHIS employees who are trained to fill commonly requested emergency response positions, as well as provides occupational safety and health support and physical and operational security support for emergency responses.

APHIS participates on the Biosurveillance Indications and Warning Analytic Community steering committee to increase understanding of agricultural threats across the Federal government, providing context for threats that may also affect human health and/or the U.S. economy. Through this interaction, APHIS leverages tools to augment other agency global biosurveillance initiatives.

APHIS also serves as a liaison between State and local officials to protect pets, breeders, and exhibitors regulated by the Animal Welfare Act (AWA) to enhance coordination on animal disease preparedness efforts. The agency works through ESF #11 (Agriculture and Natural Resources) and ESF #6 (Mass Care, in coordination with FEMA) to support pet owners in disasters. In addition, APHIS invests in the Zoo and Aquariums All Hazards Preparedness, Response and Recovery Fusion Center to help the exotic animal industry during emergencies. This Center reaches corners of the exotic animal industry that APHIS has had difficulty reaching. In addition, APHIS uses a 24/7 call-and text message line for facilities licensed and registered under the AWA to address their recovery needs. This tool enabled the agency to facilitate timely solutions to problems facing these facilities during the three major hurricanes that recently occurred, preventing irreparable harm to the impacted animals.

In addition, APHIS and the Centers for Disease Control and Prevention (CDC) jointly manage the Federal Select Agent Program (FSAP). The FSAP administers the select agents and toxins regulations in coordination with the Federal Bureau of Investigation. Any individuals or entities possessing, using, or transferring select agents or toxins must register them with APHIS (if the agent affects animal or plant health) or the CDC (if the agent affects human health). Facilities must meet requirements that ensure the safety and security of the agents and toxins and to prevent their release. APHIS and CDC inspect facilities that use or transfer these agents to ensure compliance, and they also inspect each other's facilities to eliminate potential conflicts. APHIS' Agriculture Select Agent Services ensures that facilities address non-compliances appropriately, and initiate enforcement actions when warranted. APHIS and CDC maintain a joint database to improve reporting and workload management capabilities. This database's secure portal reduces errors as well as timelines for submitting amendment requests and responding to APHIS requests for information.

This program supports USDA's goal to maximize the ability of American agricultural producers to prosper by feeding and clothing the world by preventing and/or mitigating the spread of agricultural pests and diseases. This program accomplishes this goal through early detection of and rapid response to various animal health events. The program will continue these efforts in FY 2020, with the infusion of trained responders that have been added since the historic HPAI outbreak.

Overall, base funding for the Emergency Preparedness and Response Program currently supports salaries and benefits of personnel and contracts, as well as other normal operating costs such as travel, supplies, rent, and utilities to conduct program activities.

(2) Safe Trade and International Technical Assistance:

A) Agriculture Import/Export program (\$15,599,000 and 81 staff years available in 2019).

APHIS's Import/Export program protects U.S. agriculture by facilitating the safe trade of animals and animal products. APHIS collaborates with multiple partners including other Federal agencies, States, foreign governments, industry, and academia to conduct import risk analyses that evaluate the animal health status of countries and regions requesting approval to export animals and/or animal products into the United States. APHIS' animal health experts ensure that U.S. import requirements safeguard U.S. livestock health through an evaluation process and negotiate requirements for the export of U.S. animals and animal products worldwide. APHIS bases these requirements on compliance with international standards, sound scientific principles, and fair trading practices for animals and animal products. APHIS also sets quarantine and testing requirements under which animals and animal products can be imported or exported. These requirements help ensure that global markets can be accessed, expanded, or maintained with little or no risk to U.S. animal production and human health. Additionally, APHIS conducts activities related to the 2008 Farm Bill amendments to the Lacey Act, which prohibit the importation of any plant, with limited exceptions, that are taken or traded in violation of domestic or international laws. The Act requires a declaration for imported shipments of most plants or plant products.

1) Imports

Safeguarding against the importation of significant animal diseases is vital to protecting U.S. industries, producers, and consumers. APHIS bases its regulations that minimize the risk of introducing animal diseases on evaluations of the animal health status of countries or regions. The Agency evaluates the animal health status of regions that wish to export animals and/or animal products to the United States through completing a risk assessment that documents the evaluation process and final conclusions. Based on the conclusion of the evaluation, the Agency may recognize the animal health status of the region and lift the import prohibitions related to the disease in question. These changes in regional animal health status allow U.S. importers to streamline processes associated with importing products from these countries. APHIS also recognizes that disease risks may be mitigated by treatments or processes applied to animal products, and import permits allow evaluation of these risk mitigations. In FY 2018, APHIS conducted eight site visits in various regions to confirm that the regions' surveillance, prevention, and control measures are sufficient to minimize the likelihood of an introduction of foreign animal diseases into the United States. The Agency continues to ensure that import regulations are effective and science-based, and to work with U.S. businesses and importers to facilitate safe trade. For example, the Agency is working to improve traceability of imported animals by implementing the use of identification scanners at the Mexican border that will upload ear tag information into our traceability databases. APHIS also continues to develop more regulatory flexibility, including removing the import permit requirement for certain low risk and exempted animal origin ingredients and products. In FY 2018, APHIS issued 16,377 import permits for live animals, animal products, organisms, and vectors. These include new permits, renewals, and amendments.

2) Exports

APHIS negotiates science-based conditions, including export protocols, with trading partners for various commodities that protect their country while also facilitating trade. In FY 2018, APHIS negotiated or re-negotiated 98 export protocols for animal products (16 new markets, 47 re-opened markets, 17 expanded markets, and 18 retained markets). This includes retaining market access for poultry exports in numerous countries that imposed restrictions due to outbreaks of avian influenza and Newcastle disease. APHIS also negotiated 107 export protocols for live animals (38 new or reopened markets in 29 countries, 21 retained markets in 15 countries, and 48 expanded markets in 27 countries), including new markets for cattle to Bangladesh and Ghana, and horses to China. Additionally, APHIS develops information packages and questionnaire responses from various countries to open, maintain, or expand various export markets.

APHIS endorses export certificates for live animals and inedible animal-origin products, documenting the animal health status and facilitating export to all markets. APHIS continued to increase the number of animal health export certificates issued electronically in FY 2018 by expanding the system's capabilities. APHIS has digital signature capabilities, a certificate upload feature, and is working to expand the number of countries and commodities for which electronic certification is available. This includes establishing bilateral pilot projects with Mexico and expanding the ongoing project with Canada to allow or extend exports with electronically issued and digitally signed certificates. In FY 2018, APHIS endorsed more than 326,000 export health certificates for animal products, livestock, poultry, germplasm, and pets.

3) Lacey Act

APHIS conducts activities related to the Lacey Act. The Lacey Act prohibits the importation of any plant - with limited exceptions - taken or traded in violation of domestic or international laws. The Act requires a declaration for imported shipments of most plants or plant products. A 2012 United Nations Environmental Programme study estimated the value of illegal logging, including processing, to be between \$30 to \$100 billion dollars, or 10 to 30 percent of the global wood trade. The Lacey Act amendments are designed to help combat this illegal logging, often connected to organized crime, by encouraging importers to research their supply chains and be aware of the laws governing products they purchase in other countries. APHIS works with an interagency group to implement the provisions. APHIS' role is to manage the declaration requirement, provide guidance to importers regarding the declaration, perform compliance checks, and provide enforcement agencies with information to assist their investigations. APHIS collected approximately 850,000 declarations in FY 2018. The Agency will continue conducting these activities in FY 2020.

This program supports USDA's goal to promote American agricultural products and exports. In FY 2020, the program will continue to conduct import risk analyses activities and set quarantine and testing requirements to protect U.S. agriculture while facilitating safe trade of animals and animal products.

Overall, base funding for the Agriculture Import/Export program currently supports salaries and benefits of personnel, contracts, and agreements, as well as other normal operating costs such as travel, supplies, rent, and utilities to support program activities.

B) Overseas Technical and Trade Operations program (\$22,115,000 and 55 staff years available in 2019).

Through the Overseas Technical and Trade Operations (OTTO) program, APHIS helps U.S. farmers, ranchers, and producers export their products to other countries by resolving concerns over animal and plant health issues that affect trade in agricultural products. Exports are crucial to economic viability of U.S. farmers, ranchers, and producers. According to USDA's Economic Research Service, the United States exports 20 percent of its agricultural production. However, agricultural trade is subject to costly disruptions related to animal and plant health issues. APHIS works to continually support economic opportunities by keeping markets open for U.S. agricultural products. Working with other Federal partners, such as the U.S. Trade Representative's Office and USDA's Foreign Agricultural Service, APHIS provides the technical expertise to successfully address animal and plant health regulatory issues associated with trade negotiations for new markets and to reopen markets when they are closed or threatened due to pest or disease issues.

In addressing animal and plant health trade issues, APHIS uses its strong scientific base and team of technical experts located in the United States and abroad to advocate on behalf of U.S. agriculture. APHIS officials negotiate animal and plant health requirements for exports to other countries, ensuring requirements are proportional to risk without being excessively restrictive; assist U.S. exporters in meeting foreign regulatory requirements; provide technical information to support the safety of U.S. agricultural products destined for foreign markets; and safeguard the United States from foreign agricultural pests and diseases. Highlights of FY 2018 successes include retaining access for U.S. soybeans to China, a market worth more than \$12 billion in 2017, and access for live poultry to Indonesia, a market worth \$22 million in 2017, as well as a market threatened by outbreaks of poultry diseases in the United States.

Even for markets that are open to U.S. agricultural products, APHIS must continually address issues to keep trade flowing smoothly. APHIS works with foreign counterparts to clarify or streamline certification requirements, making it easier and less costly for U.S. exporters to move their products overseas. When shipments are held up at foreign ports, APHIS works with its counterparts to resolve the issues and secure the release of the shipments. In FY 2018, APHIS successfully secured the release of more than 270 shipments worth more than \$50 million.

APHIS fosters a successful trading environment for U.S. exports by working to ensure that the same rules apply to countries around the world through international standard setting. APHIS emphasizes the use of scientific principles as a basis for international trade decisions and works with international standard setting bodies such as the World Organisation for Animal Health and the International Plant Protection Convention. By gaining support for scientific decision making internationally and following international standards when considering what can be imported into the United States, APHIS increases U.S. agricultural exports.

The OTTO program supports USDA's goal to promote American agricultural products and exports. Agricultural trade is essential for U.S. farmers, ranchers, and producers, and APHIS' technical and regulatory trade activities support their export opportunities. In FY 2020, APHIS will continue to support international trade opportunities for America's animal and plant products while ensuring that U.S. agriculture is safe from pests and diseases.

Overall, base funding for the OTTO program currently supports salaries and benefits of personnel, contracts, and agreements, and travel, as well as other normal operating costs such as supplies, rent, and utilities to support program activities.

(3) Animal Welfare:

A) Animal Welfare program (\$30,810,000 and 232 staff years available in 2019).

The Animal Welfare Act (AWA) requires animals bred for commercial sale, used in research, transported commercially or exhibited to the public receive Federal standards of care and treatment. APHIS' Animal Welfare Program ensures the humane care and treatment of animals covered by the AWA through inspection, learning opportunities and enforcement actions. Since the AWA became law in 1966, APHIS has protected millions of regulated animals used in research, exhibition, and the pet trade as well as those transported in commerce.

Before issuing a license, APHIS works closely with potential licensees to ensure they understand the requirements of the AWA regulations and standards and will be able to maintain compliance after obtaining a license from the Agency. In FY 2018, APHIS conducted approximately 800 pre-licensing inspections, and issued 735 new licenses.

For licensed and registered facilities, the Agency determines on-going compliance by conducting unannounced inspections. During these inspections, APHIS officials examine and inspect all areas of animal care and treatment covered under the AWA. The Agency reviews the animals, premises, facilities, husbandry practices, program of veterinary care, records, and animal handling procedures. APHIS confirms that the animals receive adequate housing, transport, veterinary care, and meet husbandry standards as described in the AWA. In FY 2018, APHIS conducted 10,342 inspections and found 98 percent of all facilities to be in substantial compliance with the AWA.

Whenever possible, APHIS takes a coordinated and collaborative approach to improve the welfare of animals. Using non-regulatory methods such as education, training, and outreach to stakeholders to convey critical and current animal welfare information, APHIS has been able to reduce inspection frequencies (while staying within legal requirements) for facilities that have implemented strong animal welfare programs and routinely demonstrate substantial compliance during unannounced inspections. This allows the Agency to remain focused on addressing the egregious alleged violators of the AWA, representing approximately four percent of all licensees/registrants.

When APHIS inspectors discover conditions or records that are noncompliant with AWA regulations, the Agency may establish a deadline for corrective action and increase frequency of unannounced inspections to determine whether the facility made the necessary modifications. Continued, serious noncompliance may warrant an investigation that can result in sanctions ranging from monetary penalties to suspension or revocation of the facility's license, after notice and an opportunity for a hearing. The welfare of animals nationwide is subject to significant media attention and passionate public engagement. The American public holds APHIS accountable for ensuring all regulated animals are healthy and treated humanely. Without this program, the Agency would be unable to enforce the AWA, and the health and welfare of millions of animals would be severely compromised.

Overall, base funding for the Animal Welfare program currently supports salaries and benefits of personnel and travel, as well as other normal operating costs such as contracts, supplies, and equipment to support program activities.

B) Horse Protection Program (\$705,000 and 6 staff years available in 2019).

APHIS' Horse Protection program strives to eliminate the cruel and inhumane practice of soring which involves applying caustic chemicals and/or mechanical devices to a horse's pasterns, causing the horse to experience pain or distress while walking or moving. Soring changes the gait of a horse so that the animal steps higher, allowing its rider to gain a competitive edge at horse events. APHIS has the Federal responsibility to uphold the Horse Protection Act (HPA), which prohibits sore horses from being shown, sold, or transported.

There are an estimated 200,000 Tennessee Walking and Racking Horses in the United States, with potential show winnings reaching as high as \$2.5 million. The management of horse shows, exhibitions, sales and auctions have statutory responsibility under the HPA to prevent unfair competition and must identify and disqualify sored horses prior to participating in HPA-covered events. USDA-certified horse industry organizations (HIO) train and license third party inspectors, known as Designated Qualified Persons (DQPs). DQPs conduct horse inspections at horse shows, exhibitions, sales, and auctions affiliated with these organizations. In FY 2018, DQPs attended 261 HPA events and inspected 51,347 horse entries. In total, DQPs identified 649 HPA noncompliances, and management disqualified 596 entries. This represents a nearly 90 percent increase in DQPs' detection of HPA noncompliances relative

to FY 2017, when DQPs inspected 47,373 horses and detected 337 instances of noncompliance with the HPA.

APHIS attends a select number of HPA-covered events each year to observe DQP performance and inspect horses for HPA compliance. In FY 2018, APHIS attended 64 horse events, inspected 1,638 horses, and identified 160 instances of suspected noncompliance with the HPA. APHIS' presence at horse show events serves as a deterrent; without this program, the Agency would expect to see an increase in the abusive practice of soring.

APHIS has made significant efforts to increase transparency regarding inspection techniques and results. In FY 2018, APHIS presented one training session in conjunction with industry inspectors. The session provided refresher training to existing DQPs and USDA inspectors, and initial training for those interested in becoming DQPs. Agency representatives also attended two HIO training clinics to provide support and clarification regarding HPA requirements. Additionally, in February 2018, APHIS held two shoeing and inspection clinics for walking horse owners, trainers and exhibitors to enhance understanding of the regulatory requirements and inspection processes.

APHIS' Animal and Plant Health Regulatory Enforcement program worked with the Office of the General Counsel to obtain 47 administrative orders assessing \$56,200 in civil penalties and disqualifying 44 individuals from participating in activities regulated under the HPA. Although APHIS experienced a slowdown in enforcement in FY 2018, in part, due to constitutional challenges to the appointment of administrative law judges who preside over administrative proceedings under the HPA, APHIS is actively engaged in pursuing administrative enforcement action involving 90 respondents for alleged violations of the HPA.

Overall, base funding for the Horse Protection program currently supports salaries and benefits of personnel, and travel, as well as other normal operating expenses such as necessary contracts, agreements, and equipment for completing programmatic functions.

(4) Agency-Wide Programs:

A) APHIS Information Technology Infrastructure program (\$4,251,000 available in 2019).

The APHIS Information Technology Infrastructure (AITI) program provides funding for the hardware, software (including licensing and support costs) and telecommunications infrastructure that gives Agency employees office automation tools, Internet access, and access to mission-critical programs and administrative applications. The funding for this program supports the stable and secure information infrastructure for those mission-critical applications and the day-to-day business of APHIS. The AITI priorities are to continually improve sharing of information across the Agency; improve coordination and accessibility of information, processes, and resources available to enable APHIS employees to provide day-to-day services, and support programs in emergencies; and improve APHIS' cyber-security.

APHIS works with USDA's Office of the Chief Information Officer to support the program goals and manage information technology in a manner consistent with both USDA and Federal requirements. APHIS also works with other Federal partners, including the Department of Homeland Security's Customs and Border Protection and the Department of Health and Human Services' Centers for Disease Control and Prevention to ensure that AITI provides interoperability and required availability for partner agencies, as needed for program delivery.

In support of the Federal Information Technology Acquisition Reform Act and the Data Center Optimization Initiative, APHIS is working to decrease its footprint by transitioning to a more efficient infrastructure, such as cloud services and inter-agency shared services. Cloud computing can provide the Agency with many benefits to improve how it manages data, develops applications, controls costs, manages infrastructure and delivers solutions. Leveraging the capabilities of cloud computing can provide a better way to meet business needs, requirements and compliance.

APHIS continues to review system security patching rates for the APHIS Enterprise Infrastructure workstations and servers to determine the percentage of systems kept current with the latest security patches. In FY 2018, APHIS IT maintained the current version of National Institute of Standards and Technology and Federal Information Security Management Act testing standards to continue protecting our cyber security infrastructure and reducing vulnerabilities of our systems. In addition, the APHIS IT security monitoring system continues to track improper use of personally identifiable information data

stored in the APHIS infrastructure, helping to protect confidential information that could potentially identify a specific individual such as citizenship, legal status, gender, race and/or ethnicity.

In addition to security, accessibility to information technology tools is vital to the operations of the Agency. In FY 2018, AITI maintained its 99.97 percent availability for its key computing systems as well as a 20.6 minute service-desk response time for the occasions when personnel experience difficulties accessing computing systems, making this the seventh consecutive year of high availability and quick response times. In addition, AITI re-emphasized the avoidance of misuse and/or abuse of IT systems to Agency employees in support of continued cyber security strengthening efforts.

Overall, AITI expenditures fund day-to-day operations for the Agency's IT infrastructure, including software license renewals and support, as well as other normal operating costs, such as supplies and equipment.

B) Physical and Operational Security program (\$5,146,000 and 5 staff years available in 2019).

APHIS oversees and implements precautionary measures to ensure continued, efficient mission operations, and protection from disruption, degradation, or destruction of its facilities through the Physical and Operational Security (POS) program. The program provides year-round security measures, such as physical security upgrades, alarms, badging and identification systems, guard services, security assessments, safety and risk assessments, workplace violence training, and investigations of both internal and external threats. These measures protect APHIS employees, as well as visitors and stakeholders from harm, acts of terrorism, and violence. In addition, this program supports part of USDA's contribution to the U.S. Department of State's continuing implementation of the Capital Security Cost Sharing program, which provides safe and secure workplaces for all government employees located overseas.

The POS program provides numerous types of security training using a variety of formats to Agency employees. In FY 2018, the program provided instructor-led classroom training for more than 2,150 Agency employees, including seminars and exercises relating to active shooter situations, situational awareness, illegal drugs, workplace violence prevention, self-defense, terrorism, local crime trends, and travel safety. The program also provided workplace violence training seminars and multiple security briefings for employees who work along the international border or in foreign countries. To enhance preparedness and response, APHIS continues to require active shooter training for all employees through on-line and/or classroom based training. In addition, the agency planned and delivered 12 live active shooter training exercises at various APHIS facilities. These exercises involved more than 1,300 employees, and the scenario-based active shooter training exercises provided an interactive exercise for all personnel and participating local law enforcement officers. The POS program investigates, assesses, and mitigates all internal and external threats, directed at agency facilities, programs and personnel. These threats include death threats, terrorist threats, and assaults, among others. In FY 2018, APHIS investigated 139 external threats to agency employees, and 31 workplace violence incidents. The POS program also works to ensure the safety of employees working at or near the Mexican border, and throughout Mexico, Panama, and Guatemala.

Additionally, the POS program ensures the safety of APHIS employees who enforce the Animal Welfare Act (AWA) and Horse Protection Act (HPA). APHIS security specialists investigate threats and respond to requests for protection throughout the country for agency veterinarians, inspectors, and investigators who are enforcing regulations in challenging environments. Regarding safeguarding APHIS employees entering private property, the POS program provided security during 12 inspections of regulated AWA entities, 71 HPA events, and provided protection for more than 20 personnel representing Federal agencies at a multi-day AWA hearing. The POS program also worked across the agency to develop standard operating procedures for security support for AWA and HPA inspections and investigations. In FY 2018, the program completed physical security assessments at 184 facilities. Of those facilities assessed, the POS program provided 99 facility security upgrades and repairs, to ensure that the buildings are compliant with Homeland Security Presidential Directive-12 (HSPD-12) and the Interagency Security Committee (ISC) recommendations. The HSPD-12 and ISC directives create the standard for secure and reliable forms of identification for facility/network access and compliance regarding physical security at Federal facilities. Additionally, the POS program was responsible for issuing, activating, or updating approximately 7,000 personal identification verification (PIV) cards, bringing APHIS employees in compliance with PIV use.

The program also works with other USDA agencies, the U.S. Department of Justice, U.S. Department of Homeland Security, the U.S. Department of State, and local law enforcement agencies to ensure that the appropriate organization takes the lead, contributes to program costs, and integrates security where employees are co-located overseas. APHIS maintains a presence overseas to facilitate agricultural trade and monitor pest and disease threats. The Security Embassy Construction Counterterrorism Act's Capital Security Cost Sharing Program requires the Agency to help fund the construction of New Embassy Compounds based on the number of authorized positions. In FY 2018, the POS program worked with the U.S. Department of State to establish a security baseline for APHIS facilities overseas. In FY 2018, APHIS had approximately 350 full-time employees based in countries around the world. This program provides safe and secure diplomatic facilities for the Agency's overseas personnel. This program supports USDA's goal of maximizing the ability of American agricultural producers to prosper by feeding and clothing the world. In FY 2020, the program will ensure continued mission operations and protection from disruption, degradation, or destruction of its facilities.

Overall, base funding for the POS program currently supports contracts, programmatic agreements, and personnel costs, as well as other normal operating expenses such as travel and supplies. In addition, this program supports the mandatory cost share with the Department of State for the Capital Security Cost-Sharing program.

C) Rental and Department of Homeland Security (DHS) Security Payments (\$42,567,000 available in 2019).

APHIS personnel are in every State working to carry out our mission and the Rental and DHS Security Payments program assists the agency in strategically managing the payment portfolio of approximately 230 General Services Administration leases, DHS security payments, as well as other leased, owned, and agreement funded facilities. For example, the funding for this program ensures that APHIS programs and employees can effectively and efficiently carry out all mission-related activities, including surveillance for animal and plant pests and diseases, pest and disease eradication programs, diagnostic and methods development work at laboratories, animal welfare inspections, and wildlife damage management activities. Without funding for rent and security payments, APHIS would have to cover these costs by reducing program activities, decreasing levels of service, and diverting fiscal resources from other appropriated line items.

This program supports USDA's goal of maximizing the ability of American agricultural producers to prosper by feeding and clothing the world. In FY 2020, the program will continue to ensure mission operations while effectively managing its space portfolio.

Overall, base funding for the program currently maintains rent payments in support of program activities.

PROPOSED LEGISLATION**Animal Welfare**

Current legislative authority to be amended:

Establish a new user fee that would offset a portion of the appropriation for the enforcement of the Animal Welfare Act.

APHIS carries out activities designed to ensure the humane care and treatment of animals covered under the Animal Welfare Act. These activities include licensing, registration and inspection of certain establishments that handle animals intended for biomedical research, sold as pets, transported in commerce, or used for exhibition purposes. Regulated entities already pay minimal fees for licenses, but they do not cover the full cost of the activity or the cost of the inspections.

A mandatory user fee would allow fees collected from regulated entities to be used to finance activities related to the review and maintenance of licenses and registrations, and inspections conducted under the Act.

Table APHIS-12. Change in Funding (thousands of dollars)

Item	2020	2021	2022	10 Year Total
Discretionary Budget Authority	\$9,100	\$9,220	\$9,350	\$97,600
Discretionary Outlays	8,600	8,650	8,700	88,250

Biotechnology Regulatory Services

Current legislative authority to be amended:

Establish a new user fee that would supplement appropriations for the regulation of biotechnology derived products.

Under the authority of the Plant Protection Act, APHIS regulates the introduction—meaning the importation, interstate movement, and field-testing—of organisms derived through biotechnology that may pose a plant pest risk. APHIS reviews information and data, provided during an application process, to issue authorizations, to determine if the genetically engineered (GE) organism may pose a plant health risk during the requested activity. Following this review, APHIS may issue authorizations allowing the specific activity under appropriate confinement conditions to protect plant health. APHIS operates a compliance and inspection program to ensure developers meet conditions designed to confine GE organisms in the environment during field trials, importation and interstate movement subject to the issuance of an authorization.

The authority will allow fees collected from the application process to finance activities related to the compliance management and inspection of those regulated biotechnology products under Agency authorizations. APHIS would like to develop legislation using, as a guide, the authorities provided to other regulatory agencies.

This is not a mandatory program and therefore no offsets are provided.

Table APHIS-13. Change in Funding (thousands of dollars)

Item	2020	2021	2022	10 Year Total
Discretionary Budget Authority	\$4,400	\$4,520	\$4,650	\$50,600
Discretionary Outlays	4,150	4,200	4,250	43,750

Veterinary Biologics

Current legislative authority to be amended:

Establish a new user fee that would supplement appropriations for the regulation of veterinary biologics products.

Under the authority of the Virus-Serum-Toxin Act of 1913 (P.L. 430 of 1913, as amended by 21 U.S.C. Section 151-158), APHIS regulates veterinary biologics (vaccines, bacterins, antisera, diagnostic kits, and other products of biological origin) to ensure that those products produced in or imported into the United States are not “worthless, contaminated, dangerous, or harmful.” APHIS’ licensing activities allow manufacturers to market their products. APHIS reviews license applications for production facilities and biological products and operates a compliance and inspection program to ensure that its regulations governing veterinary biologics are met. Under this proposal, APHIS would amend its current authority to allow the collection of a user fee.

Many government agencies have used user fees to address funding gaps. Through the Animal Drug User Fee Act, the Food and Drug Administration (FDA) addressed serious financial constraints and supplemented its appropriated funding. APHIS would like to amend its current authority and develop legislation similar to FDA's Act to allow the collection of such a user fee. This fee would enable APHIS to continually adjust its resources invested in veterinary biologics licensing to the workload generated by the industry, which has steadily increased production and product development.

The industry would directly benefit as reductions in the time required to receive a license would enable the industry to recover the cost of product development faster. Consumers, who rely on veterinary biologics for animal health, whether in animal agriculture or the public, would also benefit through decreased loss of animals from disease. In addition, the fee would better position APHIS to approve biologics during an animal health emergency.

APHIS seeks to ensure that veterinary biologic manufacturers comply with all laws, regulations, and policies. The user fee would act as a fee-for-service, where the industry would invest in APHIS to increase its ability to more quickly review product license requests. Additional performance enhancements may be achieved in areas such as licensing, testing, and product release turnaround times.

This is not a mandatory program and therefore no offsets are provided.

Table APHIS-14. Change in Funding (thousands of dollars)

Item	2020	2021	2022	10 Year Total
Discretionary Budget Authority	\$9,770	\$10,063	\$10,365	\$112,002
Discretionary Outlays	9,282	9,560	9,850	106,432

GEOGRAPHIC BREAKDOWN OF OBLIGATIONS AND STAFF YEARS**Table APHIS-15. Geographic Breakdown of Obligations and Staff Years (thousands of dollars, staff years (SY))**

State/Territory/Country	2017 Actual	SY	2018 Actual	SY	2019 Estimate	SY	2020 Budget	SY
Alabama.....	\$5,033	35	\$4,587	27	\$5,307	34	\$6,193	41
Alaska.....	651	2	556	1	628	1	653	1
Arizona.....	8,695	59	9,839	53	10,090	58	9,911	58
Arkansas.....	4,344	23	4,053	20	4,591	26	4,956	29
California.....	78,426	126	89,184	141	91,404	148	85,964	148
Colorado.....	55,150	351	56,522	341	59,685	375	58,257	381
Connecticut.....	1,278	6	1,285	5	1,299	7	1,310	7
Delaware.....	1,210	3	1,040	4	1,050	3	1,510	3
Florida.....	47,345	262	47,670	239	49,000	278	49,163	281
Georgia.....	6,851	48	6,366	40	6,887	54	7,169	57
Hawaii.....	25,487	281	25,912	283	26,671	290	26,545	290
Idaho.....	10,177	66	9,026	64	9,544	67	8,813	67
Illinois.....	3,521	28	3,712	28	3,782	31	3,660	31
Indiana.....	3,967	24	4,111	26	4,266	29	4,209	29
Iowa.....	64,531	330	73,028	319	74,406	368	68,500	368
Kansas.....	5,014	25	4,020	25	4,274	29	19,559	29
Kentucky.....	5,172	34	4,786	28	5,144	36	5,104	36
Louisiana.....	3,219	23	4,280	25	4,750	30	4,609	33
Maine.....	1,382	10	1,390	9	1,417	14	1,410	14
Maryland.....	249,800	767	282,321	814	291,223	837	289,901	837
Massachusetts.....	18,783	112	20,214	100	20,527	120	20,481	120
Michigan.....	6,527	52	6,576	45	6,756	55	6,685	55
Minnesota.....	24,837	156	21,886	160	22,488	171	22,263	171
Mississippi.....	8,999	54	8,671	47	9,280	64	10,080	71
Missouri.....	10,534	56	10,026	47	10,143	58	9,813	58
Montana.....	6,195	40	6,190	41	6,838	42	7,015	42
Nebraska.....	5,134	25	4,027	23	4,212	28	4,279	28
Nevada.....	2,516	21	2,537	20	2,592	23	2,551	23
New Hampshire.....	16,937	22	16,988	20	17,072	24	17,002	24
New Jersey.....	3,162	18	3,976	18	4,186	20	4,668	20
New Mexico.....	4,967	41	5,220	36	5,309	43	5,283	43
New York.....	25,836	122	36,826	126	37,148	127	41,235	127
North Carolina.....	37,791	228	41,703	214	42,567	238	42,196	238
North Dakota.....	2,825	20	2,742	16	2,815	22	2,860	22
Ohio.....	16,429	78	16,912	75	17,289	80	17,232	80
Oklahoma.....	5,108	39	5,705	43	6,605	47	7,080	54
Oregon.....	6,417	28	6,778	27	7,213	30	7,177	30
Pennsylvania.....	11,194	42	17,975	50	18,142	52	21,471	52
Rhode Island.....	344	1	354	1	356	1	347	1
South Carolina.....	3,426	25	3,346	22	3,768	28	4,054	31
South Dakota.....	3,244	16	2,656	15	2,781	17	2,754	17
Tennessee.....	9,465	43	7,608	40	8,091	45	8,156	45
Texas.....	64,561	371	58,192	342	63,282	388	59,933	397
Utah.....	6,976	46	7,017	42	7,167	48	7,054	48
Vermont.....	1,317	10	1,217	9	1,251	10	1,261	10
Virginia.....	8,515	29	8,783	31	9,357	34	10,698	34

State/Territory/Country	2017 Actual	SY	2018 Actual	SY	2019 Estimate	SY	2020 Budget	SY
Washington	8,121	33	8,668	29	8,997	36	9,026	36
West Virginia.....	2,405	16	2,606	16	2,702	18	2,717	18
Wisconsin	3,692	23	3,990	23	4,160	25	4,186	25
Wyoming	4,331	33	3,727	30	4,215	36	4,313	36
U.S. TERRITORIES:								
District of Columbia	19,863	73	20,629	72	20,799	78	20,645	78
Guam	848	2	873	3	879	3	879	3
Puerto Rico	8,850	114	8,968	113	9,234	120	9,007	120
Virgin Islands	214	1	231	1	233	1	238	1
INTERNATIONAL REGIONS								
AFRICA:								
South Africa.....	634	1	713	2	713	2	713	2
Senegal	635	1	735	1	735	1	735	1
Other.....	383	1	159	-	159	1	159	1
ASIA/PACIFIC:								
China.....	1,429	2	1,602	2	1,602	2	1,602	2
Japan.....	1,156	1	1,412	2	1,412	1	1,412	1
South Korea	464	1	500	1	500	1	500	1
Other	2,368	5	2,645	5	2,645	5	2,645	5
CARIBBEAN:								
Dominican Republic	768	1	600	1	600	1	600	1
Other.....	178	-	131	-	131	-	131	-
CENTRAL AMERICA:								
Guatemala.....	26,213	2	21,283	2	21,283	2	21,283	2
Panama	18,456	4	14,944	7	14,944	7	14,944	7
Other.....	934	1	1,081	1	1,081	1	1,081	1
EUROPE/NEAR EAST:								
Austria	485	-	321	-	321	-	321	-
Belgium	1,376	1	1,376	2	1,376	2	1,376	2
Other.....	805	2	689	2	689	2	689	2
NORTH AMERICA:								
Canada	165	-	238	-	238	-	238	-
Mexico	7,537	2	7,112	2	7,112	2	7,112	2
SOUTH AMERICA:								
Brazil	784	1	835	2	835	2	835	2
Chile	233	-	248	-	248	-	248	-
Other.....	2,277	2	1,915	2	1,915	2	1,915	2
Obligations.....	1,008,896	4,521	1,066,044	4,421	1,102,410	4,878	1,110,574	4,929

Note: Total direct obligations; does not include advances and reimbursements or Agricultural Quarantine Inspection User Fees.

CLASSIFICATION BY OBJECTS**Table APHIS-16. Classification by Objects (thousands of dollars)**

Item No.	Item	2017 Actual	2018 Actual	2019 Estimate	2020 Budget
	Personnel Compensation:				
	Washington D.C.	\$80,275	\$82,205	\$83,117	\$84,084
	Personnel Compensation, Field	268,747	275,208	278,261	281,499
11	Total personnel compensation	349,022	357,413	361,378	365,584
12	Personal benefits	121,957	120,731	122,006	123,470
13.0	Benefits for former personnel	492	571	571	571
	Total, personnel comp. and benefits	471,470	478,714	483,954	489,624
	Other Objects:				
21.0	Travel and transportation of personnel	29,091	29,579	30,129	30,832
22.0	Transportation of things	2,380	2,117	2,217	2,567
23.0	Rent payments, Comm. and Utilities	63,314	65,263	65,563	65,518
24.0	Printing and reproduction	506	627	677	676
25	Other contractual services	3,104	11,722	11,882	12,479
25.1	Contractual Services Performed by Other Federal Agencies	60,040	78,286	78,386	78,423
25.2	Related Expenditures	4,853	4,651	4,651	4,651
25.3	Repair, Alteration or Maintenance of Equipment, Furniture or Structure	7,959	8,085	8,085	8,085
25.4	Contractual Services – Other	41,508	49,102	50,052	51,746
25.5	Agreements	235,543	242,667	264,233	264,536
25.6	IT Services and Supplies	6,193	12,501	12,501	12,491
25.7	Operation and maintenance of equipment	12,125	7,722	7,722	7,551
25.8	Subsistence and support of persons	636	644	644	644
26.0	Supplies and materials	42,593	44,230	50,830	51,342
31.0	Equipment	19,910	22,679	23,429	23,589
32.0	Land and Structure	100	-	-	-
41.1	Grants, subsidies and contributions	497	366	366	331
42.0	Insurance claims and indemnities	7,072	7,088	7,088	4,812
	Total, Other Objects	537,426	587,330	618,456	620,950
99.9	Total, new obligations	1,008,896	1,066,044	1,102,410	1,110,574
	DHS Building Security Payments (included in 25.3)	\$2,789	\$2,810	\$2,824	\$2,850
	Position Data:				
	Average Salary (dollars), ES Position	\$181,334	\$183,124	\$185,871	\$188,659
	Average Salary (dollars), GS Position	\$72,212	\$84,962	\$86,236	\$87,530
	Average Grade, GS Position	9.46	9.45	9.49	9.50

STATUS OF PROGRAMS**Safeguarding and Emergency Preparedness/Response****Current Activities**

American agriculture faces many threats from foreign and domestic pests and diseases, which have the potential to negatively impact animal and plant agricultural production, trade, and the economy. APHIS monitors and responds to potential diseases of livestock and wildlife, invasive species, and conflicts between humans and wildlife as it strives to assure its stakeholders that it is on guard against the introduction or re-emergence of animal and plant pests and diseases that could limit agricultural production.

When a pest or disease is detected in the United States, APHIS works cooperatively with other Federal, State, Tribal and industry partners to conduct animal and plant health monitoring programs to rapidly diagnose them and determine if there is a need to establish new pest or disease management programs. APHIS, in conjunction with States, Tribes, industry, and other stakeholders, protects American agriculture by eradicating harmful pests and diseases or, where eradication is not feasible, by minimizing their economic impact. The Agency monitors endemic pests and diseases through surveys to detect their location and through inspection to prevent their spread into non-infested parts of the country. APHIS conducts diagnostic laboratory activities that support the Agency's veterinary disease prevention, detection, control, and eradication programs. The Agency also provides and directs technology development to support plant protection programs and cooperators at the State, national, and international levels.

APHIS also develops methods to control animals and pests that are detrimental to agriculture, wildlife, and public safety.

The Agency maintains a cadre of trained professionals prepared to respond immediately to potential animal and plant health emergencies. Program personnel investigate reports of suspected exotic pests and diseases and take emergency action if necessary. To facilitate these efforts, APHIS develops pathway studies and thoroughly investigates the progression of outbreaks to determine the origin of animal and plant pests and diseases. APHIS also actively engages State, Tribal, and local governments, and industries to advance their emergency preparedness and response capabilities.

APHIS conducts operations to ensure the humane care and treatment of vulnerable animals covered under the Animal Welfare Act and the Horse Protection Act. The Agency also balances a regulatory system that safeguards agriculture while fostering innovative research and development in the field of biotechnology.

Selected Examples of Recent Progress - Animal Health:

Animal Health Technical Services

APHIS' Animal Health Technical Services (AHTS) program develops and enhances tools for acquiring and managing information vital for improving global market access for U.S. livestock and animal products. Incorporating national surveillance standards into data management applications allows the program to compile animal health information nationally, thus leveraging the work of animal health professionals nationwide to meet local, State, and national veterinary health objectives. Disease transmission and spread models, developed by the Agency, allow improved planning and management of animal health incidents. Moreover, the National Veterinary Accreditation Program (NVAP) within the AHTS program trains private veterinarians to help producers meet export requirements and disease program standards. Ultimately, this allows U.S. animals and animal products to compete in the global economy.

Animal Disease Traceability (ADT)

The national ADT framework allows Federal, State, Tribal, and private animal health professionals to work together to identify diseased animals, quickly trace their movements, and control disease spread to protect the livestock industry, whose production value was approximately \$69 billion in 2017 (National Agricultural Statistics Service, USDA). Knowing where diseased and at-risk animals are located helps preserve animal health; ensure a rapid response in case of an animal disease event; reduce animal illnesses and deaths if outbreaks occur; and decrease the cost to producers, consumers, and the government. This system also assures States and our trading partners that USDA can rapidly contain an animal disease event. Each year, APHIS provides cooperative agreement funds to States to help them establish and maintain their own ADT programs. Currently all States receiving program funds have approved ADT strategic plans in place with APHIS.

This program continues to progress toward developing a system that is effective, flexible, and increases the timeliness of retrieving traceability data. In FY 2018, APHIS continued to work with States and industries to increase the volume of electronically generated and stored Interstate Certificates of Veterinary Inspection (ICVI), which are the primary documents the Agency uses to obtain animal movement information. To strengthen these capabilities, the ADT program began several IT initiatives to provide mechanisms for State and Federal animal health officials and accredited veterinarians to gather data electronically from the start of the data collection process instead of keying data or scanning paper records into electronic databases. The enhancements of existing mobile solutions, web-based interfaces, and a message service will move data between State and Federal data stores. Providing these tools and services minimizes the burden of manually recording animal information by producers and accredited veterinarians when they ship livestock to other States, while improving efficiencies in data collection, retrieval and sharing process. Electronically gathered and stored ICVIs are easier to search than paper documents and increase the efficiency of animal health officials. APHIS is currently in the process of developing the technical requirements and contracting deliverables for each of these proposals.

APHIS measures the success of the ADT program by conducting trace tests. The trace tests document a State's ability to properly administer, record, and retrieve documents pertaining to official livestock identification and interstate movement. The Agency has established national baselines for these tracing activities, which animal health officials typically conduct during a disease event. Based on the results of these tests, States/Tribes have improved their ability to retrieve the requested animal identification information, and are now able to do so successfully 99.5 percent of the time. Prior to implementation of the national baseline for tracing activities, the combined times for three standard types of traces was 490 hours. That combined total dropped to 123 hours in FY 2015 and has continued to decline through FY 2018 to a total of 47 hours. APHIS bases these times only on traces for animals that

have an official USDA identification tag. Animals that do not have official identification take significantly longer to trace or are untraceable.

In FY 2018, APHIS created a State and Federal ADT Working Group to assist in reviewing the ADT regulation, examine the feedback from the recent public stakeholder meetings, and provide input based on their experiences with disease traceability issues. In FY 2018, the ADT working group provided input towards updated program goals for advancing animal disease traceability. APHIS presented the goals to stakeholders at the National Institute for Animal Agriculture Traceability Forum in September 2018. These goals include: advancing the electronic sharing of data among federal and state animal health officials, veterinarians, and industry stakeholders; using electronic identification tags for animals requiring individual identification to improve the transmission on data; enhancing the ability to track animals from birth to slaughter through a data tracking system; and elevating the discussion with states and industry to work toward a system where private veterinarians electronically transmit animal health certificates to state animal health officials. APHIS will continue to engage in further discussion with stakeholders and initiate actions in support of these goals.

Information Management

Many of the APHIS information management systems are available to States and Tribal Nations to support their traceability plans and other animal health activities. APHIS conducts evaluations of existing data systems and applications to determine if they modify and enhance them or if they should develop new systems and applications. In FY 2018, APHIS conducted a feasibility and affordability analysis of the Mobile Information Management System which supports the agency's cattle fever tick eradication program operations. As a result of the analysis, the agency completed a project that modified and enhanced the Mobile Information Management System. These enhancements allow for real-time scanning of animal identification tags, improving the ability to track and monitor animal movement particularly along the U.S. Mexico border. The agency also evaluated the pilot phase of Palantir, a data integration software application for improving animal health data management. Additionally, APHIS finalized and implemented the Information Technology Governance Framework (ITGF) in FY 2018. The ITGF is a group of policies that establish a set of rules and processes that govern IT investment. The ITGF provides a uniform and transparent way of doing business and relies on the cooperation and collaboration of both the IT and the Agency.

Modeling

APHIS uses epidemiologic and economic models to improve the understanding of historical events, estimate future consequences, and inform strategic, logistical, and budgetary decisions by evaluating the effectiveness of varying interventions related to animal health. In FY 2018, APHIS continued to develop and update foot-and-mouth disease (FMD), classical swine fever, and avian influenza models for contingency planning, evaluating potential control strategies, estimating potential consequences of disease introduction and spread, and analyzing surveillance and response activities for recent outbreaks.

In FY 2018, APHIS continued to address challenges by developing models designed to advance our understanding of disease epidemiology for the purposes of emergency preparedness and management. In collaboration with the Agricultural Research Service's Foreign Animal Disease Research Unit, APHIS analyzed experimental data for FMD transmission, persistence, and infection dynamics in order to inform parameter development in disease-spread and control models. In FY 2018, APHIS populated the Australian Animal Disease Spread Model with U.S. data to support regional-level simulations of livestock disease, the first phase in evaluating this model for domestic use. This model is very efficient, allowing for more disease spread and control scenarios to be completed, and contains advances in State-level parameterization that allows for more utility. APHIS also completed a modification and enhancement to the Animal Disease Spread model to make it more user-friendly and available for State and local level emergency response planning. In FY 2018, to effectively plan for next generation modeling at the national level, APHIS initiated a project with Texas A&M University to identify technical specifications, data requirements, and computing efficiencies necessary to sustain the functionality of future disease-spread and control models.

National Veterinary Accreditation Program (NVAP)

More than 66,000 highly trained accredited veterinarians act as the first line of defense for reportable domestic and foreign animal diseases. The voluntary NVAP authorizes private veterinary practitioners to work cooperatively with Federal veterinarians and State animal health officials to report when they suspect these diseases to be present. This provides the first step in rapid diagnosis, quarantine, and other control measures to safeguard our nation's animal and human health. Accredited veterinarians also provide official animal, flock, and herd health certifications, disease testing, and traceability practices for billions of animals each year. Mandatory training and renewal of accreditation provide increased knowledge of animal disease surveillance, prevention, zoonosis, judicious use of antimicrobials, animal welfare, and disaster preparedness. APHIS currently hosts 31 web-based supplemental training modules for

accredited veterinarians. In FY 2018, accredited veterinarians completed approximately 140,000 web modules, with more than 5,000 modules completed at veterinary conferences nationwide.

Aquatic Animal Health

The Aquatic Animal Health program protects the health and value of U.S. farm-raised aquatic animals and natural resources by carrying out activities consistent with the National Aquatic Animal Health Plan (NAAHP), which calls for surveillance and testing of high-consequence aquatic animal diseases. The NAAHP helps the Federal government develop policies and programs to address aquatic animal diseases for the benefit of aquaculture and aquatic animal resources. The USDA, the U.S. Department of Commerce, and the U.S. Department of the Interior implement the plan. This program's efforts position commercial producers in domestic and international trade markets, valued at \$1.6 billion in 2017 (USDA Census of Agriculture), and helps the commercial aquaculture industry demonstrate adherence to sound practices for aquatic animal health.

In FY 2018, APHIS and the National Aquaculture Association continued to implement the Commercial Aquaculture Health Program Standards (CAHPS), which supports improved health management, protection and expansion of aquaculture business opportunities, promotion and facilitation of trade, and improved resource protection. The CAHPS provides leverage in trade negotiations by establishing a non-regulatory framework to improve and verify the health of farm-raised aquatic animals. This effort positions commercial producers in domestic and international trade markets, and helps the aquaculture industry demonstrate adherence to sound aquatic animal health practices.

APHIS continued to participate in projects to determine how CAHPS principles can best be used in various aquatic production operations and states. Two projects continued this fiscal year that involved Atlantic salmon, cultured in Maine or Washington. APHIS established two additional cooperative agreements – one in Idaho with rainbow trout producers and one in Florida with a commercial koi carp and goldfish producer. Initial projects have afforded template development and standardization of CAHPS processes and have allowed feedback from industry and state partners on improved application. They have also generated interest from the Canadian Food Inspection Agency (CFIA), which has indicated that it would recognize facility CAHPS participation, testing history, and ongoing surveillance to support premise or facility freedom for specific pathogens. APHIS continues to work with trading partners and industry to promote CAHPS as a cost-efficient and risk-based method for demonstrating disease freedom by site or establishment and geographical zones. Producers who participate in a CAHPS may also be able to reduce testing over time based on history, surveillance, and biosecurity.

In FY 2018, there were several detections of pathogens listed by the World Organisation for Animal Health (OIE) in U.S. cultured fish, mollusks, and crustaceans. In fish, koi herpesvirus was detected on several farms and infectious salmon anemia virus (ISAV), the non-pathogenic variant, was detected in wild and farmed Atlantic salmon.

Bonamia exitiosa was detected in oysters from the northeast and *Vibrio parahaemolyticus*, which causes acute hepatopancreatic necrosis disease, was detected on a shrimp farm. Additionally, APHIS continued to work with domestic industry on other priority pathogens such as *Aeromonas hydrophila*, a major fish and amphibian pathogen. In June 2018, APHIS and collaborators completed a year-long survey to determine regulatory costs and challenges in the trout and salmon sector. Results from this project support the need to harmonize state and federal regulations and demonstrates how a nationally-recognized CAHPS program could help to reduce regulatory burden of fish health testing for movement and trade.

In recent years, APHIS has added several aquatic animal pathogens to the National Animal Health Laboratory Network (NAHLN) repertoire of standardized testing, including ISAV and spring viremia of carp virus. Incorporating these pathogens has helped standardize aquatic animal pathogen testing and build our Nation's capacity to respond to aquatic animal disease outbreaks and maintain or expand U.S. export markets. APHIS also developed and administered protocols and proficiency tests for these NAHLN pathogens. In FY 2018, the Agency again required proficiency testing panels for NAHLN and APHIS-approved laboratories performing export testing to determine a laboratory's capability to conduct specific diagnostic tests and produce correct results.

APHIS completed a three-year surveillance study in FY 2016 involving salmon in Alaska and Washington State. As part of this study, the Agency worked with the National Oceanic and Atmospheric Administration, the U.S. Fish and Wildlife Service, the U.S. Geological Survey, the States of Washington and Alaska, and the Northwest Indian Fisheries Commission to determine the risk that ISAV poses to wild Pacific salmon and coastal economies. All 4,962 samples submitted for ISAV testing were negative. The results of this effort provide sound evidence to support the absence of ISAV in represented populations of free-ranging and marine-farmed salmonids on the northwest coast of the United States. In FY 2018, APHIS and these partners published a manuscript in the *Journal of Fish Diseases* to provide results of the study and recommend that the U.S. Pacific Northwest continue to operate as free from ISAV, with continued biosecurity practices to support a strong health status.

Avian Health

The Avian Health program protects the U.S. poultry industry, valued at \$43 billion in 2017 (USDA, National Agricultural Statistics Service), while facilitating agricultural trade in poultry and poultry products. This program consists of the surveillance, prevention, and control of avian diseases; disease threat planning and response; international avian health activities; and modeling activities. APHIS' surveillance programs detect foreign, zoonotic, and domestic diseases that could substantially impact domestic production and the economy. Surveillance information facilitates trade and protects public health by demonstrating that certain diseases do not exist in poultry populations. Prevention and control programs minimize the disease threat and protect the value of poultry markets. The Agency also maintains regulations and national program standards and guidelines that direct avian health activities at the Federal, State, and Tribal levels. Maintaining these standards supports interstate and international commerce by providing assurances about the health of avian species and products that are moved or traded. In addition, APHIS uses models to improve the understanding of historical events, estimate consequences, and inform decisions by evaluating the effectiveness of varying interventions. This program has the expertise and infrastructure to work with avian health industries, universities, and State and Federal partners to collect, analyze, and disseminate vital avian health information to those who might take action.

Surveillance, Prevention, and Control of Avian Diseases

To ensure the U.S. poultry industry maintains its competitiveness worldwide, it is essential to quickly detect and address endemic, emerging, and foreign disease threats. To quickly detect avian diseases, APHIS conducts surveillance in domestic poultry, live bird marketing systems (LBMS), and wild birds. The Agency helps prevent and/or control the spread of avian diseases through collaboration and education, as well as regulatory enforcement. The agency designed this prevention and control activities to quickly diagnose disease, improve biosecurity conditions, and minimize the effects of avian influenza (AI) on the LBMS and commercial poultry industry.

The National Poultry Improvement Plan (NPIP) is a cooperative Federal-State-industry program that helps participants guard against disease incursion and enhance the marketability of poultry and poultry products. Hawaii officially joined the NPIP in March 2018. Currently, the NPIP AI prevention and control program involves the participation of all 50 states and Puerto Rico; more than 95 percent of commercial broiler, turkey, and egg industries; and 100 percent of the primary poultry breeding industry. Approximately 100 authorized and approved laboratories provide diagnostic testing for the program. The NPIP hosted three diagnostic laboratory training workshops in FY 2018 to enhance education for *Mycoplasma*, *Salmonella*, and AI. In addition, USDA published a final rule in August 2018 to link the NPIP biosecurity principles to Federal highly pathogenic avian influenza (HPAI) indemnity and compensation payments. Commercial poultry operations now must have successfully audited biosecurity plans by August 2020 to be eligible for indemnity and compensation payments.

The LBMS is a network of U.S. live poultry markets and their production and distribution systems, which provides fresh poultry meat to consumers. As of September 30, 2018, 38 States and the U.S. Virgin Islands had live bird markets that participate in the Agency's AI prevention and control program. State cooperators help conduct surveillance and diagnostic activities for the LBMS. When these tests yield presumptive positive results, APHIS confirms the presence and strain of AI. LBMS testing prevents and controls the disease in markets and among producers and distributors that supply those markets. Since the H5/H7 low pathogenicity avian influenza (LPAI) LBMS prevention and control program began in 2004, the number of AI-positive premises has decreased steadily. In FY 2017, the program conducted approximately 138,000 AI surveillance tests in the LBMS; FY 2018 data will be available after the agreements with States conclude on March 31, 2019. In FY 2018, there were no detections of H5/H7 LPAI in the United States LBMS. However, there was one detection of virulent Newcastle disease (vND), formerly known as exotic Newcastle disease (END), in a live bird market in California.

APHIS conducts AI surveillance in commercial poultry under the National H5 and H7 LPAI Control Program. Although most of the testing is performed locally, APHIS' National Veterinary Services Laboratories provides reagents for testing and performs confirmation and identification testing of presumptive positive specimens. In FY 2017, APHIS performed approximately 2 million AI surveillance tests through NPIP cooperative agreements; FY 2018 data will be available after the agreements with States conclude on March 31, 2019. From October 1, 2017 - September 30, 2018, there were five confirmed LPAI detections in U.S. commercial poultry.

On May 18, 2018, APHIS confirmed vND in backyard exhibition chickens in Los Angeles County, California. vND is a highly contagious and fatal viral disease affecting all avian species. This was the first case of vND in the United States since 2003. By September 30, 2018, USDA had confirmed 150 cases in California: 97 in San Bernardino County, 31 in Los Angeles County, 21 in Riverside County, and 1 in Ventura County. However, vND has still not been found in U.S. commercial poultry since 2003. APHIS intensified its efforts in September and identified

additional cases within existing disease-control areas and quickly euthanized affected flocks. These actions will help prevent additional disease spread and eradicate the disease more quickly. The California Animal Health and Food Safety Laboratory System tests samples, and APHIS' National Veterinary Services Laboratories in Ames, Iowa, confirms all findings. APHIS worked closely with the California Department of Food and Agriculture to respond to these findings, conduct epidemiological investigations, and conduct additional surveillance and testing in the areas.

In FY 2018, APHIS coordinated the collection and laboratory analysis of approximately 21,000 wild bird samples. National wild bird surveillance in conjunction with on-farm wildlife investigation helped determine the emergence of the HPAI H7N9 virus that affected domestic poultry in the Southeast during 2017 and introductions of the H5 virus from wild birds to domestic poultry since 2002. In addition, the agency continued to collaborate with researchers in China on HPAI surveillance and at Mississippi State University on ecological-genetic studies.

Regulatory enforcement is critical to contain HPAI. To deter the entry of HPAI in FY 2018, APHIS investigated five cases involving avian health issues. As a result, the agency issued four Official Warnings to subjects who illegally imported poultry hatching eggs into the United States in violation of the Animal Health Protection Act.

Disease Threat Planning and Response

Also in FY 2018, the NPIP established the U.S. Poultry Primary Breeder AI Compartmentalization program, and this program began implementing biosecurity improvements at the primary breeder level. Primary breeders breed pedigree stock, which is kept on high-level biosecure farms. Compartmentalization represents a major shift from the traditional paradigm of disease control in that it defines the health status of a subpopulation of animals by common biosecurity and management principles rather than a shared geographic boundary. APHIS' voluntary compartmentalization program, which involves those breeders that employ strict AI-targeted biosecurity measures into an officially-recognized certification program, support the trade of poultry and poultry products if the United States encounters an AI outbreak. Participating breeders must meet the program's extensive biosecurity, personal training, disease monitoring, and laboratory infrastructure requirements, which are designed from evidence-based principles known to prevent AI virus introduction and spread. APHIS administers the program and serves as the regulatory authority that international trading partners can trust to verify that a participant meets the requirements.

APHIS provides services that support agency and interagency emergency management activities, and protect the health, safety, and security of agency personnel. Respirators serve a vital function in this regard by protecting workers from significant hazards including insufficient oxygen and harmful pollutants in dusts, fogs, smokes, mists, gases, vapors and sprays. The Occupational Safety and Health Administration requires all employees to be fit tested before using a respirator in the workplace, and to be retested at least every 12 months to make sure that the respirator still fits properly. In FY 2018, APHIS trained 12 employees as fit-testers, increasing the total number of trained fit-testers to 153. In addition, 450 personnel were fit-tested for respiratory protection for use in responding to an AI outbreak. In addition, the Agency maintained and calibrated the 32 fit-testing units and purchased two additional units to ensure they are consistently available to support fit-testing requirements. In FY 2018, APHIS equipped the fit-testing units with self-contained breathing apparatus masks to increase the variety of uses. In addition, APHIS also began to record fit-testing information in the APHIS Emergency Qualifications System for more rapid access during emergency response.

In FY 2018, APHIS supported the Zoo and Aquariums All Hazards Preparedness, Response, and Recovery (ZAHP) Center in the launch of Secure Zoo, which is modeled after the APHIS- and industry-driven Secure Foods family. Secure Foods is an APHIS-funded collaborative effort to provide business continuity during a foreign animal disease outbreak. The Secure Zoos Strategy addresses the challenges that foreign animal diseases pose to the managed wildlife community through mitigation, protection, response, and recovery efforts. After launching Secure Zoo, ZAHP shifted to making these efforts more sustainable by industry. In addition, the ZAHP invited proposals and micro-grant reimbursement for preparedness projects, which will provide insight into stakeholder concerns and how to address them. Also in FY 2018, ZAHP helped facilitate a grassroots effort in Texas to build a more standardized emergency response model in the regulated exhibitor community.

International Avian Health Activities

Overseas, APHIS facilitates agricultural trade, works with agricultural officials, monitors agricultural health, and supports efforts in sanitary and phytosanitary standard-setting. In addition, the agency works with the USDA's Foreign Agricultural Service and the U.S. Trade Representative's Office to maintain a coordinated, strategic approach to resolving avian health issues that affect U.S. exports. Further, APHIS coordinates with the World Organisation for Animal Health (OIE) and other international organizations to assist with disease prevention, management, and eradication activities in HPAI-affected regions. In FY 2018, APHIS delivered more than 22 capacity-building activities in the areas of biosecurity, poultry disease diagnostics, quality assurance in the

laboratory, poultry and wildlife surveillance, and Incident Command System (ICS). As an example, APHIS, in conjunction with the OIE regional representative in Botswana, determined that the most urgent priority in the Southern African Development Community (SADC) region was creating awareness and building capacity in surveillance and detection, especially in wildlife. In the spring of 2018, APHIS and cooperators provided training on practical tools for HPAI surveillance in wild birds and live bird markets in spring. This training used existing SADC infrastructure, and trained officials who trained others. Approximately 20 participants from South Africa, Madagascar, Uganda, Lesotho, Mozambique, Angola, Democratic Republic of Congo and Zimbabwe participated in this activity. In addition, APHIS' office in Japan delivered a training in zoning for HPAI. The primary objective of this training was to increase understanding and utilization of zoning as disease control strategy for avian diseases, consistent with principles of the OIE Terrestrial Animal Health Code, and provided the up-to-date science-based knowledge on surveillance, zoning, and compartmentalization for avian disease control. More than 40 participants from Japan, South Korea, Taiwan, and ASEAN countries (Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, the Philippines, Singapore, Thailand and Vietnam) participated in this training.

In addition, APHIS sponsors and staffs the Emergency Management Center (formerly the Crisis Management Center for Animal Health) at the Food and Agriculture Organization (FAO) of the United Nations, in Rome, Italy. APHIS provided one full-time veterinarian for this Center, which helps countries respond to and contain animal disease threats. The Center provides assessments, guidance, and resources to enable rapid response to animal disease outbreaks in countries where the United States would have difficulties placing personnel or responding bilaterally. This approach reduces the threat of disease outbreaks from becoming widespread and evolving into pandemics. APHIS also ensures that U.S. trading partners adhere to the sanitary and phytosanitary rules of the World Trade Organization and other international standard-setting organizations, as the United States and FAO-Rome expand their cooperating relationships and establish new partnerships.

Modeling Activities

APHIS uses modeling to identify efficiency opportunities and facilitate informed decisions. In FY 2018, the agency completed a pilot study with Colorado State University using geospatial modeling to identify geographic areas within one State at high risk for the introduction of AI into poultry operations. As part of that study, modelers mapped commercial poultry farms and avian population densities across the contiguous United States using novel methods. In addition, they developed models predicting the spatial and temporal distribution of wild birds in the United States as a precursor to designing national models to identify potential high-disease risk areas of co-occurrence between wild birds and domestic poultry. APHIS also contracted with a company that provides statistical services to customers in the avian industries to acquire data to update the cost estimates in models determining egg layer, turkey, and broiler indemnity values for breeder and meat birds.

Cattle Health

The Cattle Health Program protects and improves the quality, productivity, and economic viability of the U.S. cattle industry, valued at approximately \$111 billion (National Agricultural Statistics Service, 2017). The Cattle Health Program has two major goals: to rapidly detect and respond to diseases that could significantly affect the U.S. cattle and bison population, and prevent the spread of any newly detected disease in the United States as well as endemic domestic cattle and bison diseases of concern.

APHIS activities in the Cattle Health Program include surveillance, disease prevention, disease investigation, and outbreak response actions. In addition, APHIS maintains regulations, national program standards, and guidelines that direct activities at the Federal, State, Tribal, and local levels. Establishing and maintaining these standards is a vital responsibility that supports interstate and international commerce by providing assurances about the health of cattle or bison being moved or traded.

In FY 2018, APHIS continued to conduct surveillance for foreign, emerging, and endemic diseases, including bovine tuberculosis (TB), brucellosis, and bovine spongiform encephalopathy (BSE). In addition, the Agency conducted surveillance for disease vectors, such as the cattle fever tick (CFT). The Agency conducts surveillance through cattle testing at slaughter facilities, livestock markets, shows, sales, buying stations (first point testing), on-farm, and rendering facilities (operations that collect dead, dying, disabled, and diseased animals). APHIS also continued working with neighboring countries to exclude foot-and-mouth disease, new world screwworm, and other cattle diseases. The following are examples of the Agency's efforts to protect cattle health during FY 2018.

Bovine tuberculosis

Bovine TB primarily affects cattle, but has the potential to affect other animal species and humans as well. APHIS' surveillance for this disease includes testing live cattle and using slaughter surveillance data from the USDA's Food Safety and Inspection Service (FSIS). APHIS also works with Mexico to implement a joint strategic plan to control

and eradicate bovine tuberculosis in both countries. Since the bovine TB program began in 1917, it has significantly decreased the prevalence of the disease in U.S. livestock. Today the prevalence rate in cattle herds is less than 0.001 percent. In FY 2018, 147 Federal and State-inspected slaughter establishments submitted 6,250 samples for program testing. Through these surveillance efforts, the program detected TB in 15 animals: four adult cases from Michigan, one adult and one feeder case from South Dakota, one adult and four feeder cases from Texas, two adult cases from Wisconsin, and two feeder cases in Mexican cattle.

In FY 2018, APHIS identified four TB affected beef herds through live animal surveillance: two in Michigan, one in Nebraska, and one in South Dakota. APHIS also identified one TB affected dairy herd in Texas. APHIS uses a mix of depopulation and test-and-removal strategies to address bovine TB-affected herds. These strategies consider herd size, potential indemnity costs, State and owner preferences, genetics, and the probability of removing infection. The two Michigan herds were depopulated with State funding. The South Dakota herd was depopulated with Federal funds while feeder cattle on the premises were sent to FSIS inspected slaughter facilities. The Nebraska herd was depopulated with Federal funds. A TB affected cattle herd in Indiana, identified in FY 2017, was depopulated with Federal funds after a test-and-remove herd management plan continued to detect TB infected animals. The Texas dairy is currently under a test-and-remove herd management plan.

The Cattle Health Program has five State bovine TB classifications. A higher prevalence rate results in more restrictive movement requirements. The classifications are, in descending order: accredited free, modified accredited advanced, modified accredited, accreditation preparatory, and non-accredited. Michigan is currently composed of two classification zones: accredited free and modified accredited status. At the end of FY 2018, 49 States, two Territories (Puerto Rico and the U.S. Virgin Islands), and one zone were TB accredited free.

Bovine brucellosis

Bovine brucellosis is an infectious disease that can cause decreased milk production, weight loss, abortions, infertility, and lameness, and negatively impact the livelihood of cattle producers and the supply of meat and dairy products. Because of the Federal and State brucellosis eradication efforts, all 50 States, the District of Columbia, Puerto Rico, and the U.S. Virgin Islands have been free of brucellosis since July 2009. States with brucellosis in wildlife work with APHIS to implement a State brucellosis management plan (BMP). Each BMP explains the basis for the area identified; describes the epidemiologic assessment and surveillance activities to determine if wildlife populations are affected; and describes surveillance and mitigation activities for cattle, bison, and wildlife. Although the United States is considered free of brucellosis, there continues to be a presence of brucellosis in free-ranging bison and wild elk in the Greater Yellowstone Area (GYA). APHIS provides expertise to land and wildlife management agencies to manage brucellosis in the GYA, which includes parts of Idaho, Montana, and Wyoming.

In FY 2018, APHIS tested approximately 2 million head of cattle for brucellosis under the market cattle identification national slaughter surveillance program. The Agency, in conjunction with States, also tests cattle and domestic bison on farms or ranches for movement, private sale, issue of herd certification, and for show or exhibition purposes. In FY 2018, the program certified 308 herds as brucellosis-free cattle herds. Since many producers no longer have to incur the cost of maintaining annual whole herd testing for certification, the number of certified-free herds varies year to year based on the producers' need for livestock movement. In support of the program, producers worked with accredited veterinarians to collect samples and state laboratories test the samples.

There was one new brucellosis affected herd detected in FY 2018. In November 2017, a beef herd in Idaho was detected during their annual certification tests. APHIS placed this herd under quarantine and it is currently under a test-and-remove herd management plan. There is no indication that brucellosis has spread outside the GYA. This area is APHIS' main focus for brucellosis in livestock because the disease is endemic there in wild elk and bison.

Bovine spongiform encephalopathy

In FY 2018, the Agency tested 21,307 cattle for BSE resulting in 394,832 points, exceeding the World Organization for Animal Health's (OIE) international surveillance standards (21,429 points per year). In FY 2018, APHIS adjusted all the sample contracts and cost per samples under delivery and quantity contracts, replacing the blanket purchasing agreements for greater efficiency. This reduces the number of sampling contractors while improving the geographic distribution and quality of samples collected. Only six cases of BSE have ever been identified in the United States. In FY 2018, an atypical case of BSE was confirmed in Florida. Unlike classical BSE, atypical BSE generally occurs in older cattle, arises spontaneously in all cattle populations, and is not the result of contaminated feed. As a result, the detection has not had any effect on U.S. export markets or OIE's international recognition of the United States as low risk for BSE.

Cattle fever tick

The Federal-State Cattle Fever Tick Eradication Program is a partnership between APHIS and the Texas Animal Health Commission. The cattle fever tick (*Boophilus annulatus*) and the southern cattle tick (*B. microplus*) are vectors for spreading babesiosis, also known as cattle fever. Even when not transmitting this disease, CFT can cause blood loss, damage to hides, and an overall decrease in the condition of livestock. Mortality in cattle without prior exposure to the disease ranges from 70 to 90 percent. The Agency focuses on controlling the spread of tick species that transmit the infectious agent through the inspection of livestock before they leave quarantined areas, surveillance at local markets, inspection of hunter-killed white-tailed deer and other exotic ungulates, and horseback river trail patrols to capture stray and smuggled Mexican livestock who may carry ticks into the United States.

The United States remains free of cattle fever. There is a permanent quarantine buffer zone established between Texas and Mexico. Bordering Mexican states harbor tick species, which carry the disease, and tick-infested wildlife or livestock near the U.S./Mexico border can bring the ticks into the United States. Tick eradication activities consist of identifying and quarantining infested premises and treating livestock and wildlife. Approved treatment methods for ticks include: dipping or spraying cattle with coumaphos, a pesticide that targets ticks and mites; feeding corn treated with an anti-parasitic drug called ivermectin to deer found in wildlife; and injecting cattle with Doramectin, a derivative of ivermectin, used for the treatment and control of internal parasitosis, ticks, and mites found in cattle. To release a quarantine area, every infested premise must have all cattle treated for at least nine months, including inspections and treatments every two weeks.

In FY 2018, APHIS conducted 137,565 individual animal inspections and 97,303 treatments throughout South Texas. For FY 2018, the quarantine zone and the free area of Texas contained 110 newly quarantined premises, compared to 165 in FY 2017. When fever ticks have been found on livestock or wildlife that resided on the premises for more than 14 days, that premise is designated as infested. A premise may also be considered affected when there has been probable cause to investigate a quarantine zone for fever ticks. Probable cause for investigation includes adjacent premises bordering an exposed or infested premise; or premises separated by roads, double fences, or fordable streams.

Screwworm

APHIS and its cooperators have eradicated screwworm from the United States, Mexico, Belize, Guatemala, Honduras, El Salvador, Nicaragua, Costa Rica, and down to the southern-most portion of Panama. APHIS' international efforts prevent the reestablishment of screwworm in the United States by collaborating with Panama and Colombia, to maintain a biological barrier zone in the Darien Gap, a narrow 102-mile stretch of jungle along the border of Colombia and Panama. The program relies on field operations and a sterile insect technique, a process where APHIS and cooperators produce and sterilize insects at a jointly managed facility in Panama and release them in the barrier zone to mate with wild insects, thereby preventing reproduction. This is a proven method to eradicate insect populations. The United States also has access to the sterile flies in the event of an outbreak in U.S. territory. APHIS produces approximately 20 million sterile flies per week at its Panama rearing facility. In response to higher levels of screwworm cases in the barrier zone over the last several years, the program supplemented the areal release of sterile insects with ground releases in FY 2016 and FY 2017. Program officials also evaluated the sterile insects produced and determined the sterile insect strain had declined in fitness. As a result, the program began producing sterile insects from a cryogenically preserved strain in FY 2017 and continued releasing them in FY 2018 with good results. In FY 2018, there were nine positive screwworm cases in the barrier zone, a significant reduction over the 30 positive cases in FY 2017 and 64 positive cases the year before. APHIS will continue to maintain the barrier zone in Panama to prevent the spread of and reintroduction of screwworm.

Equine, Cervid and Small Ruminant Health

The Equine, Cervid, and Small Ruminant Health (ECSRH) program protects the health and improves the quality, productivity, and economic viability of the equine, cervid, sheep, and goat industries. APHIS activities include monitoring and surveillance, investigation and response, and disease prevention and preparedness actions taken when they identified health issues. The Agency's monitoring and surveillance activities detect foreign, emerging, zoonotic, and domestic diseases that could substantially impact the economy. APHIS also works with international and domestic trading partners to facilitate safe trade in equine, cervids, and small ruminants and their products and ensure that cases of diseases of trade concern are reported to the World Organisation for Animal Health (OIE). In 2018, the ECSRH Program conducted disease surveillance and/or monitoring for the following diseases: scrapie, bovine tuberculosis (TB), chronic wasting disease (CWD), vesicular stomatitis virus (VSV), contagious equine metritis (CEM), equine piroplasmiasis (EP), and equine infectious anemia (EIA).

Sheep and Goat

The National Scrapie Eradication Program (NSEP) focuses on improving the health of the national sheep flock and goat herd, reducing scrapie-associated economic losses and increasing international marketing opportunities. Regulatory scrapie slaughter surveillance efforts began in FY 2003, and were designed to identify scrapie infected flocks and herds by sampling animals at slaughter. Since the surveillance program began, the program has collected more than 600,000 samples at slaughter. When first measured in FY 2002, the rate of cull sheep sampled at slaughter that tested positive for classical scrapie was 1 in 500 (0-2%).

In FY 2018, APHIS collected samples from 43,625 sheep and goats for scrapie testing, detecting three positive (0.0068%) cases. These figures are based on sample submissions and testing completed by September 30, 2018. FY 2018 values are expected to change when testing is completed for all animals sampled in FY 2018. In October 2017, a non-classical scrapie case was detected in a sheep from Virginia sampled at slaughter. As a result, the non-classical scrapie affected flock was placed on a 5-year monitoring plan. Unlike classical scrapie, non-classical scrapie (Nor98-like) is either not laterally transmissible or is transmissible at a very low rate and the OIE and APHIS have determined that it is not a disease of trade concern. In April 2018, scrapie was detected in a sheep from North Carolina sampled at slaughter. There was insufficient positive tissue available to conclusively determine if the case was classical or non-classical scrapie using standard testing. The flock was depopulated and no other sheep in the flock subsequently tested positive for scrapie. In August 2018, classical scrapie was detected through slaughter surveillance in a goat from Pennsylvania. All scrapie susceptible sheep and goats exposed to that goat are awaiting depopulation, and APHIS will monitor the herd of origin for five years.

The NSEP has a voluntary flock certification component, the Scrapie Free Flock Certification Program (SFCP). Participation in the SFCP enables producers to enhance the marketability of their animals by protecting them from scrapie and provides participants an avenue to export sheep and goats. At the end of FY 2018, 264 flocks were enrolled in the SFCP. Of these, 47 were export certified (scrapie-free), 54 were export monitored (working toward scrapie freedom), and 163 were select monitored (reduced scrapie risk).

Cervids

APHIS has announced a pilot project to evaluate the DPP test for TB in mule and sika deer for FY 2019. The DPP has been approved since 2012 as a primary test for elk, red deer, white-tailed deer, and fallow deer and will now be evaluated as a primary and secondary test for TB in mule and sika deer. The project will utilize serum samples that designated accredited veterinarians submitted for herd TB certification purposes. The project will collect samples from 306 animals for each species and submit them in a manner consistent with APHIS guidelines. The agency will consider them to be official TB tests.

Additionally, at the request of the United States Animal Health Association (USAHA) Tuberculosis Subcommittee, APHIS performed an analysis of TB testing in farmed cervids in the United States from 2011 to 2017. USAHA requested this analysis to describe TB testing in farmed cervids during this time period and to inform policy makers regarding possibly extending testing intervals from 3 to 5 years in the Agency's voluntary herd accreditation program. Based on the preliminary analysis of data, testing could potentially be reduced by approximately 40 percent per year, and the probability of detecting an infected animal in a given year would be reduced to detecting one infected animal in 5,461, to one animal in 3,096 (95 percent probability). Further analysis will continue in FY 2019.

To aid in the eradication of bovine TB, APHIS provides a voluntary herd accreditation program for captive cervids and requires testing before interstate movement. In FY 2018, the program tested 11,475 animals utilizing a blood test Dual Path Platform test and 2,807 animals by the skin test single cervical for TB. Eleven TB suspects were identified and seven of these animals were classified as TB reactors upon follow-up testing. A reactor animal is an animal that has tested positive to a 2nd TB confirmation test. The program determined six of the seven reactors were negative for *Mycobacterium bovis*. Post mortem test results on the last reactor is currently pending.

APHIS' voluntary national CWD Herd Certification Plan (HCP) helps States, Tribes, and the cervid industry control CWD in farmed cervids by allowing the interstate movement only from certified herds. Currently, 28 States participate in the national CWD HCP and the program used an immunohistochemistry test method to test 21,584 farmed cervids for CWD. In FY 2018, APHIS identified 15 new CWD positive farmed cervid herds (14 deer herds and 1 reindeer herd). The reindeer herd in Illinois was the first confirmed case of CWD in a reindeer in North America. APHIS provided Federal indemnity to depopulate seven of the 15 newly identified deer herds in FY 2018. The Agency also provided funding for the test and removal of 161 high risk animals that were in close proximity to reactors. The remaining herds in FY 2018 are under State quarantines. The Agency determines the use of Federal indemnities within the CWD program on a case-by-case basis.

Equines

APHIS collaborates with Federal, State, and industry partners to protect the equine industry from diseases that threaten animal and human health. The United States is the world's second leading exporter of horses by value, accounting for 17 percent of the \$2.7 billion worldwide market value (Global Trade Atlas 2017). In a study conducted by the American Horse Council, the industry's 7.2 million horses contribute approximately \$50 billion in direct economic impact to the U.S. economy (American Horse Council National Economic Impact Study 2017).

APHIS works with State animal health officials and industry to protect and improve the health of our domestic herd. APHIS provides expertise to equine industry organizations and assists in the development of the National Equine Health Plan. The plan functions as a roadmap for owners, veterinarians and industry organizations to coordinate with State and Federal animal health officials to recognize, prevent, control and respond to diseases. By integrating the roles of the State and Federal health officials with industry stakeholders, both equine health and the industry are improved; this helps decrease the impact of infectious diseases on the horse economy. These activities improve trade and facilitate equine movement, which are vital to maintaining the industry's economic value.

In FY 2018, APHIS coordinated with States to provide disease-specific technical guidance, epidemiological expertise, diagnostic assistance, and national-level situation reporting to respond to findings of equine diseases of high impact or concern. Specifically, APHIS conducted national disease surveillance for EIA, EP, VSV and CEM. In FY 2018, positive detections of EIA and EP, identified during routine surveillance, led to investigations and response activities. APHIS collaborated with States and other Federal agencies in the reporting of equine cases of certain zoonotic diseases such as: Eastern equine encephalitis, Western equine encephalitis and West Nile virus. In FY 2018, APHIS maintained certification and annual proficiency testing for 24 equine viral arteritis laboratories, 12 EP laboratories, and 13 CEM laboratories. In addition to certifying and conducting annual proficiency testing for 414 EIA laboratories, APHIS created and implemented national guidance for the submission and testing of almost 1.3 million EIA samples submitted annually by accredited veterinarians. Additionally, APHIS provides veterinary support and consultation to the U.S. Department of the Interior's Bureau of Land Management Wild Horse and Burro Program through an interdepartmental cooperative agreement.

National Veterinary Stockpile

The National Veterinary Stockpile (NVS) is a component of APHIS' Surveillance Preparedness and Response Services Logistics Center and serves as the primary source of materials, supplies, and equipment for the response to, control of, and containment of significant animal disease outbreaks. NVS has two primary objectives: to deploy countermeasures, within 24 hours of approval, against the most damaging animal diseases including highly pathogenic avian influenza, foot-and-mouth disease (FMD), virulent Newcastle disease, and classical swine fever; and, to assist States, Tribes, and Territories with planning, training, and exercises for the rapid request, receipt, processing, and distribution of NVS countermeasures during an event. To prepare for an incident response, the NVS program works with States, Tribes, and Territories to develop their logistics plans, conduct logistics training, and organize full-scale logistics exercises.

The NVS continuously evaluates their inventory of supplies and replaces expired inventory. In FY 2018, the NVS acquired additional poultry depopulation equipment. The NVS program successfully provided shipments of personal protective equipment, supplies and equipment to the virulent Newcastle disease response program in California, as well as activated a contract for personnel to assist with depopulation, disposal, and decontamination to address a low pathogenic avian influenza outbreak in California within 24 hours. APHIS will be reviewing the recent virulent Newcastle disease and low pathogenic avian influenza responses to identify opportunities for program improvements.

The NVS program seeks opportunities to, coordinate, and support activities with States. In FY 2018, the program focused its activities on State preparedness and conducted exercises with Montana, North Dakota, Ohio, and Wyoming. NVS personnel facilitated planning and training exercises to identify resource gaps and improve state preparedness plans. As a result, more Federal, State, Tribe, and Territory officials are better prepared to respond logistically to animal disease outbreaks. In addition to outreach activities, the NVS program partnered with other agency personnel to conduct training and drills to improve communication, collaboration, and integration during a logistics emergency response. These activities enabled the Agency, as well as participating stakeholders and partners, to refine their preparedness procedures. The Agency will continue to conduct exercises and trainings in the deployment of resources and response preparedness to animal health events in FY 2019 and FY 2020.

Also in FY 2018, APHIS continued to update and maintain the North American FMD Vaccine Bank (NAFMDVB) as part of the agency's animal health readiness initiative. The NAFMDVB is vaccine stockpile that APHIS, Mexico, and Canada cooperatively manage. Each country contributes funding to acquire vaccine and maintain a stockpile of

vaccine concentrate, from which FMD vaccine is derived. A portion of NVS funding was pooled with other appropriations from APHIS and partners in the Bank to acquire a new antigen for FMD preparedness and to perform critical quality control testing of other newly acquired antigens held in the Bank. The Commissioners of the Bank are working to ensure that the Bank can continue to maintain adequate stocks of vaccine concentrate and to conduct necessary quality assurance testing.

Swine Health

APHIS' Swine Health Program protects the health and improves the quality, productivity, and economic viability of the swine industry. The 2017 production value of the swine industry was approximately \$19 billion (National Agricultural Statistics Service). In addition, the program facilitates trade in swine and pork products, and addresses swine health issues at the human-swine interface and between wildlife and domestic swine. APHIS activities include comprehensive and integrated swine surveillance, emergency preparedness and response planning, disease investigation and control activities, zoonotic disease prevention and response, swine health studies and special projects, collaborations on emerging issues, and outreach and communication with stakeholders. In addition, the Agency maintains regulatory and programmatic guidelines that direct activities at the Federal, State, and Tribal levels. Establishing and maintaining national standards support interstate and international commerce by ensuring the health of animals and products being moved or traded.

APHIS collects swine samples from various surveillance streams as part of a comprehensive integrated surveillance approach to detect various swine diseases that could substantially affect domestic producers and the national economy. Comprehensive integrated surveillance includes field work and epidemiological investigations, designated surveillance streams, a veterinary diagnostic laboratory infrastructure, data management systems, and methodologies for data analysis and reporting. APHIS collects samples and data from the following surveillance streams: veterinary diagnostic laboratories, slaughter plants, high-risk producer premises, livestock markets, and feral swine during population elimination projects. Surveillance testing supports the swine industry by assuring trading partners and other stakeholders of the status of swine diseases in the United States.

This comprehensive surveillance approach has enabled APHIS to maintain effective surveillance using a risk-based approach that targets high-risk samples and reduces surveillance costs. In FY 2017, APHIS tested 185,236 samples for pseudorabies virus (PRV); 161,491 for swine brucellosis; 888 for influenza A virus – swine (IAV-S); and 9,504 for classical swine fever (CSF). Of the samples tested for CSF, the Agency's Foreign Animal Disease Diagnostic Laboratory on Plum Island, New York tested 5,429 samples, and the National Animal Health Laboratories Network tested 4,075 samples. The testing received as of November 1, 2018, continued to confirm that all commercial swine herds were free from swine brucellosis and PRV, and that CSF remains eradicated from the United States. However, swine brucellosis and PRV continue to be found in non-commercial herds following exposure to feral swine. In FY 2017, two non-commercial herds tested positive for PRV test-positive, and seven non-commercial herds tested-positive for swine brucellosis in six States.

In all positive cases, APHIS and States investigate and quarantine infected herds, conduct outbreak testing to determine disease levels, and depopulate or remove infected animals to eliminate disease risk from these herds. These efforts protect commercial herds that may be exposed to infected backyard herds. With PRV and swine brucellosis eliminated from U.S. commercial swine herds, the Agency is modernizing surveillance activities to reflect a comprehensive, risk-based, and science-based approach to support trade efforts while reducing burdens on States and producers. In FY 2018, APHIS implemented a streamlined cull sow-boar slaughter sampling process for PRV and swine brucellosis surveillance, lowering sampling levels while maintaining stakeholder assurance that the U.S. commercial swine herd is free of PRV. The Agency modified sampling criteria to improve early detection of these diseases in higher risk herds. Influenza A virus in swine (IAV-S) infection is common in the swine industry, and the Agency characterizes selected samples that producers submit to diagnostic laboratories to assess variations in influenza viruses that affect swine. In FY 2017, APHIS performed 289 investigations in swine for foreign animal diseases (FAD), and all were negative.

APHIS has the responsibility under the Swine Health Protection Act to license and inspect swine production facilities that feed cooked garbage to swine, and to search for unlicensed facilities that may illegally feed raw garbage to swine. This practice could transmit infectious diseases such as African swine fever, FMD, or CSF to swine. By ensuring that food waste fed to swine does not threaten domestic swine, APHIS protects the commerce, health, and welfare of U.S. citizens. In FY 2017, the Agency supported 6,161 inspections of licensed premises and 21,614 searches for non-licensed facilities, leading to the identification of 114 non-licensed feeders. APHIS worked with States to either bring unlicensed facilities into compliance or force them to cease their illegal activities.

In FY 2018, public health officials reported 14 human variant influenza cases linked to swine exposure in multiple States. State public health and animal health officials, with support from APHIS and the Centers for Disease Control and Prevention, investigated all outbreaks. The Agency offers assistance to States and industry to identify the isolates from the swine associated with these outbreaks, if warranted. Joint animal health and public health investigations support the One Health concept and strengthen APHIS's ability to respond when both animal and human health might be compromised. Genetic sequences from these samples and other swine isolates are entered into GenBank. GenBank is a publicly accessible genomic database that provides the scientific community with updated, comprehensive DNA sequence information to support diagnostic test and vaccine development. Swine can harbor several zoonotic disease agents, such as IAV-S, swine brucellosis, and trichinellosis. Also in FY 2018, APHIS agreed to provide USDA oversight, as required by the World Animal Health Organization (OIE), to an industry-led negligible risk compartment for trichinella based on the Pork Quality Assurance Plus program. Compartmentalization represents a major shift from the traditional paradigm of disease control in that it defines the health status of a subpopulation of animals by common biosecurity and management principles rather than a shared geographic boundary. Establishing this compartment would allow the U.S. pork industry to access and protect international markets for fresh pork without the need for other mitigations such as individual carcass testing or freezing. APHIS provided industry with guidance on the surveillance testing required to establish the compartment. The testing is funded by APHIS and will be conducted by the Agricultural Research Service through an interagency agreement in FY 2019.

In FY 2018, APHIS supported special projects to advance scientific knowledge, situational awareness, rapid disease detection, advance information technology to support comprehensive surveillance and to advance diagnostic tests that are critical to the Agency's ability to respond to swine and human health events. Specifically, APHIS and industry stakeholders continued validating tests for use of oral fluids in swine FAD diagnostics (CSF, ASF, and FMD). This work is scheduled for completion in FY 2019.

Veterinary Biologics

APHIS' Center for Veterinary Biologics (CVB) regulates veterinary biological products under the Virus-Serum-Toxin Act to ensure that these products are pure, safe, potent, and effective. Organizations develop these products, which include vaccines, bacterins, antisera, diagnostic test kits, and analogous products to prevent, diagnose, and treat animal diseases in a wide variety of animal species. The CVB develops regulations concerning the production and licensing of veterinary biologics, evaluates pre-licensing dossiers and issuance of licenses and permits, tests products submitted for licensure, inspects facilities and product, approves product certifications, investigates non-compliance, and conducts post-marketing surveillance to ensure that manufacturers comply with all relevant regulations and policies. This comprehensive regulatory approach is the most effective way to ensure that only quality, Federally-licensed veterinary biological products are available to U.S. consumers, available for U.S. export markets, and also plays an essential role in protecting animal health and agriculture.

Licensed Products and Inspections

APHIS licenses and inspects facilities to ensure that all veterinary biological products produced and distributed in, imported into, or exported from, the United States are of the highest quality, and are not worthless, contaminated, dangerous, or harmful. Before the Agency began regulating veterinary biologics, farmers and animal health officials found products to be ineffective or contaminated with harmful diseases, including foreign animal diseases (FADs). While most of the time required in the licensing process is in the control of the potential licensee in developing manufacturing processes and conducting required studies, the CVB analyzes data and conducts confirmatory testing before issuing licenses. To reduce the burden on the regulated industry, CVB has expedited turnaround times, streamlined information collection required under specific circumstances, and implemented electronic submissions for the majority of required regulatory submissions. These efficiencies have reduced the overall staffing needs for CVB, at least until the growing biologics industry requests outpace the Agency's resources.

In FY 2018, APHIS received 222 applications for new and renewal licenses/permits, and issued 60 licenses/permits for the prevention, diagnosis, management, or cure of existing or new/emerging animal diseases. In addition, the Agency licensed 94 manufacturers and permittees for approximately 1,708 active veterinary biological product licenses/permits for the control of 230 animal diseases. These products are critical for protecting American agriculture, facilitating trade, and enhancing agricultural economic opportunities. APHIS also continued the implementation of the single-tier labeling rule in regards to veterinary biologics in FY 2018. Under this rule, the product's efficacy descriptions changed from a system that reflected any of four levels of effectiveness to a single, uniform label claim. This simpler format better communicates product performance, saves time and money for the manufacturer, and makes U.S. labeling more consistent with other products in international markets. In addition, APHIS clearly defined policy to allow the use of platform and prescription vaccines. These innovative policies allow

stakeholders the flexibility to quickly change vaccines to match emerging and changing pathogen threats with very limited risk to people, animals or the environment.

APHIS' National Centers for Animal Health (NCAH) Portal allows real-time communication and data exchange between APHIS and biologics manufacturers, eliminating the time and costs of deliveries. By the end of FY 2018, 86 percent of licensed firms were using the NCAH Portal. This resulted in CVB receiving 96 percent of marketing documents, 91 percent of biographical summaries, 76 percent of licensing correspondence, and 56 percent of inspection and compliance correspondence via the NCAH Portal. In FY 2018, CVB added submission of export certification and facility documents to the NCAH Portal in March and June, respectively. During the fourth quarter of FY 2018, the NCAH Portal received 64 percent of export certificates and 95 percent of facility documents. The total number of submissions CVB received from the NCAH Portal increased 24 percent from 28,443 submissions in FY 2017 to 35,243 submissions in FY 2018.

The United States and foreign countries require import and export certificates to certify that products are prepared in accordance with the Virus-Serum-Toxin Act. In FY 2018, APHIS reviewed/processed 2,333 Certificates of Licensing and Inspection, and reviewed/processed 1,045 export certificates for veterinary biological products. The Agency processed all export certificates within 4 days, and all certificates of licensing and inspection within 28 days. Timely processing helps ensure that markets are accessible for manufacturers who export their product. APHIS also helped ensure there were no FAD events related to the importation of more than 50 million doses of biological products.

APHIS annually inspects an average of at least 50 biologics sites to assure compliance. More than 99 percent of the unlicensed entities investigated either move towards licensure of the product in question or cease the objectionable activity. This program has the expertise and infrastructure to work with animal health industries, universities, and State and Federal partners to collect, analyze, and disseminate vital animal health information to those who might take action. APHIS also inspects manufacturing facilities to ensure that they produce biologics according to regulations. In FY 2018, APHIS conducted 62 on-site inspections, 27 percent of which supported a new establishment/facility or product license for the industry. Licensed veterinary biologics are vital since manufacturers can use them to make products to diagnose, prevent, or treat animal diseases, or improve existing biologics. In FY 2018, APHIS also performed 159 regulatory actions, issued 56 violation notices, and conducted 22 investigations of possible regulation violations. In addition, the Agency received 229 adverse event reports regarding veterinary biological products. These events, which the product may or may not cause, occur after the product is used. APHIS gathers this information to better learn how producers use the products in field conditions and applied them to the evaluation process to assure that pure, safe, potent, and efficacious products are available.

Collaborative Efforts

In FY 2018, APHIS provided expertise and training at a joint Institute for International Cooperation in Animal Biologics education program. The program was made available to educate domestic and international industry personnel and foreign officials on U.S. regulatory processes. There were 152 registrants including 42 international attendees from 20 countries. The program promotes U.S. policy as a regulatory model for both established and developing markets, and it improves worldwide marketability of USDA-licensed biologics. APHIS also participated in harmonization efforts with major trading partners including Japan and the European Union through the International Cooperation on Harmonisation of Technical Requirements for Registration of Veterinary Medicinal Products. Additionally, CVB participates in the Veterinary International Conference on Harmonization's (VICH) Outreach Forum. This forum promotes the use of VICH harmonized guidelines in countries with developing regulatory systems for veterinary medicinal products.

APHIS also updated its procedures for implementing the National Environmental Policy Act (NEPA) in FY 2018 to better align with current science and Agency practices. Since APHIS issued the previous guidance in 1995, there have been numerous advances in science and technology, and changes in how the Agency approaches pest and disease management. The revised regulations took effect on June 25, 2018. The changes clarify and modify APHIS' categories of action, and establish an environmental documentation process to use in emergencies. In addition, they allow APHIS to continue analyzing impacts on the environment, while eliminating the need to prepare specific NEPA documentation for several routine program activities. The revisions will support CVB's new streamlined process for licensing veterinary biologics and will lead to cost savings in this area. The Agency expects that the new NEPA process will improve the efficiency of licensing veterinary biologics.

Veterinary Diagnostics

Laboratory and diagnostic services are essential components of the U.S. animal health infrastructure. The Veterinary Diagnostics line item provides partial funding for the National Veterinary Services Laboratories (NVSL), which

consists of laboratories in Ames, Iowa, and at Plum Island, New York. The NVSL is recognized by the World Organisation for Animal Health and the Food and Agriculture Organization as an international reference laboratory for significant animal diseases such as highly pathogenic avian influenza and foot-and-mouth disease (FMD). The NVSL provides diagnostic test services ranging from a single laboratory test to comprehensive laboratory services covering many pathogens for suspected outbreaks of domestic and foreign animal diseases (FADs). This line item also supports the National Animal Health Laboratory Network (NAHLN), which is an animal disease surveillance and monitoring system that interconnects Federal and State laboratory resources to improve the security of the nation's livestock by providing disease diagnostics both daily and during outbreaks.

NVSL

Diagnostic testing and confirmation of surveillance samples improves the security of the nation's livestock. In addition, NVSL is often on the forefront of emerging and re-emerging diseases including porcine epidemic diarrhea, Senecavirus A (SVA), bluetongue, and rabbit hemorrhagic disease virus. In FY 2018, the NVSL managed more than 483,800 diagnostic tests and approximately 43,500 accessions (one or more diagnostic samples received from the same submitter on the same day). In late FY 2017, NVSL had launched an electronic submission format through a web-based portal that made the VS 10-4, Specimen Submission, the most common submission form, available to customers. In FY 2018, NVSL expanded this portal to include VS 6-35, Report of Thoracic Granulomas in Regular Kill Animals, VS 10-3, Request for Salmonella Serotyping Form, and VS 17-31, Equine Import Testing Form. This was a critical customer service advancement, making it easier for submitters to submit samples and reducing data entry errors at the laboratory. The laboratories produced and filled more than 109,600 reagent orders in FY 2018, representing approximately 600 different types of products used in veterinary diagnostic testing. Many of these products are only available to stakeholders through APHIS. In support of diagnostic testing and the development of vaccines for use in the prevention of animal diseases, NVSL produced more than 558,500 milliliters of cell culture material, representing a broad spectrum of approximately 35 cell culture lines. The Agency also validated new test methods and platforms, and provided training and assistance to domestic and international laboratories.

In FY 2018, NVSL conducted testing on 2,344 diagnostic accessions to support FAD investigations and also supported international capacity building and collaborative activities in Argentina, Australia, Bangladesh, Brazil, Canada, Dominican Republic, England, India, Israel, Japan, Mexico, Morocco, Nigeria, Romania, South America, Ukraine, Uganda, and United Kingdom. In collaboration with the Canadian Food Inspection Agency, APHIS worked on a strategy to improve and harmonize available diagnostic methods to enhance North American African swine fever preparedness. Since 2014, APHIS has experienced a seven-fold increase in the number of investigations largely due to the emergence of SVA. SVA is an infectious but non-fatal disease that primarily affects pigs. Because SVA symptoms mimic FMD, APHIS must provide a diagnosis to exclude FMD in each case. SVA is emerging with new disease pathology in young pigs and has been reported in at least 21 states as well as Australia, Brazil, and New Zealand. The program received and tested 11,849 classical swine fever (CSF) surveillance samples in FY 2018. Of this total, NVSL tested 7,549 samples, and NAHLN laboratories tested 4,300 samples.

APHIS conducts proficiency testing of Federal, State, and university-sponsored laboratories to ensure that they use standardized, rapid diagnostic techniques and to maintain the credibility of U.S. diagnostic test results in the international marketplace. In FY 2018, APHIS provided 33 types of proficiency panels to international, Federal, State, and private laboratories, both within and outside the NAHLN network. APHIS made the necessary controls and reference strains available for approximately 200 diseases to help other laboratories develop and validate diagnostic tests. User fees cover the cost of some reagents and proficiency panels.

NAHLN

The Veterinary Diagnostics appropriation also provides support for limited infrastructure in NAHLN laboratories; NAHLN program staff and infrastructure costs; the APHIS Laboratory Portal, which provides a secure means of communication for NAHLN laboratories and proficiency test management for NAHLN and non-NAHLN APHIS-approved laboratories; personnel to provide information management system support for electronic messaging; and online quality management training the NAHLN laboratories use to maintain qualifications for participating in the network. The NAHLN serves as a vital early warning system for foreign and emerging animal diseases. The NVSL trains NAHLN laboratory personnel to ensure proficiency and standardization for performing diagnostic tests.

In FY 2018, the network laboratories performed approximately 145,700 diagnostic tests to support APHIS' animal health surveillance and response programs for NAHLN scope diseases. This number includes the NAHLN CSF testing numbers stated above. Surveillance numbers for FY 2018 are similar to those recorded for FY 2017, but, there was an overall increase in testing numbers from FY 2017 due to the increase in FAD investigations (FMD/SVA) and testing associated with the virulent Newcastle disease outbreak response. The NAHLN program

staff conduct exercises to prepare participating laboratories for animal disease outbreak scenarios; this enables the laboratories to remain proficient in animal disease testing. It also enables them to generate a rapid, local preliminary diagnostic result while confirmatory testing is performed at the NVSL. In FY 2018, the NAHLN laboratory in California supported a response to virulent Newcastle disease in exhibition birds as well as an outbreak of low pathogenic avian influenza. As of the end of FY 2018, the NAHLN consisted of 59 State, Federal, and university veterinary diagnostic laboratories in 42 States. These laboratories work with the NVSL reference laboratories to test for 14 economically devastating and/or potentially zoonotic diseases such as FMD, influenza in avian and swine species, bovine spongiform encephalopathy, and classical swine fever.

APHIS has established various communication mechanisms that enable the NAHLN coordination office to efficiently exchange information between and among member laboratories and State and Federal officials. One method for gathering input on the network's function includes the NAHLN Coordinating Council, which is comprised of NAHLN laboratory directors, State animal health officials, and officials from APHIS and the National Institute of Food and Agriculture. This Council approved 15 Level 1 laboratories, 28 Level 2 laboratories, and 7 Level 3 laboratories in FY 2018. The laboratory designation system reflects different levels of capabilities for surveillance, preparedness, and emergency response preparation. A NAHLN laboratory designated as Levels 1, 2, and 3 receives infrastructure support from USDA, and also conducts fee-for-service testing for USDA.

The NAHLN Coordinating Council made electronic messaging a priority in the assessment for FY 2018 designation. To maintain a designation, qualifying laboratories must undergo annual reviews to demonstrate adherence to NAHLN policies and procedures, and adjust levels accordingly. Based on the level of infrastructure funding provided to Level 1, 2, and 3 NAHLN laboratories, the laboratories maintained a high level of required quality standards, increased their capacity of electronic messaging, and increased the capacity to provide early detection and surge testing by increasing testing capacity. A USDA Executive Committee will continue to review and implement the NAHLN strategic and operational plans, and the Coordinating Council will continue to provide a forum to discuss the NAHLN's needs. The program has made it a priority to increase the number of NAHLN laboratories that are capable of electronically messaging test result data to APHIS. In FY 2018, 43 laboratories were capable, and APHIS projects that number will increase to 45 in FY 2019, 55 in FY 2020, and 58 in FY 2021. The commitment is to have all Level 1 and Level 2 laboratories messaging their NAHLN-approved assay results by the end of FY 2019. This accounts for the large increase in the projected number of laboratories for FY 2020.

National Bio and Agro-Defense Facility (NBAF)

In FY 2018, APHIS continued to work with the Department of Homeland Security (DHS) and USDA's Agricultural Research Service (ARS) to plan for the move from the aging Plum Island Animal Disease Center (PIADC) at Orient Point, New York, to the state-of-the-art NBAF that DHS is building in Manhattan, Kansas. The PIADC, home to the Foreign Animal Disease Diagnostic Laboratory (FADDL), is the only U.S. laboratory that is permitted to work with virulent foot-and-mouth disease virus (FMDv). In addition, FADDL is the custodian of the North American FMD Vaccine Bank. The NBAF will be a key national asset to protect the U.S. animal agriculture industry. It will be the first and only facility in the United States with large animal Biosafety Level (BSL)-4 containment capability, and will be the only U.S. laboratory allowed to work with virulent FMDv.

USDA and DHS have been working closely together to plan for transfer of management and oversight of NBAF from DHS to USDA when construction and commissioning of the facility is complete. USDA and DHS currently expect facility construction and commissioning to conclude in May 2021. At that point, NBAF systems and components will be operable and there will be a phasing in of live agent work. Before this initial occupancy date, however, USDA will need to fully test the facility during an endurance testing period beginning in December 2020. This requires significant staff on site to test the animal handling and animal disposal capability, operate multiple laboratories at the same time, and utilize many other NBAF components. To accomplish these tasks and still meet current timelines, USDA will accelerating hiring in FY 2020. After the transfer, ARS will manage the building and facilities. Both ARS and APHIS will have leadership responsibilities on operational aspects of the facility and for their own science programs. The NBAF will be online and fully operational in December 2022; the NBAF transition will continue through the closure of PIADC in August 2023. USDA is confident it can effectively and efficiently operate this state of the art facility.

Preparation for DHS' transfer of NBAF to USDA has required substantial planning. Since January 2018, USDA has held regular meetings to develop an organizational and governance structure for NBAF, and identify roles and responsibilities for each agency. In preparation for the transition, USDA formed multiple transition working groups to develop the detailed Work Breakdown Structure for NBAF stand up and steady state by USDA rather than DHS. Planning efforts will continue until the facility is online and fully operational.

Also, in FY 2018, APHIS and ARS continued efforts to develop a workforce of subject matter experts in foreign, emerging, and zoonotic diseases to conduct diagnostics in preparation for the NBAF transition. Workforce development is critical given the significant loss of expertise expected during the transition and the need to transfer the U.S. FAD diagnostic institutional knowledge to the NBAF. While we can train diagnosticians to perform specific tests, interpreting unclear results and troubleshooting diagnostic assays when they do not perform properly requires a high level of experience. APHIS developed the NBAF Scientist in Training Program to meet the workforce needs for subject matter experts in foreign animal and zoonotic diseases. APHIS accepted eight students into the first cohort from four different universities. In May of 2018, APHIS and ARS began recruitment actions for 24 key positions USDA planned to fill in FY 2018; four of which belong to APHIS. APHIS recruited for all four positions in FY 2018. The NBAF Coordinator started in FY 2018; the remaining three will begin in FY 2019. APHIS continues to recruit for additional key positions needed for the operational stand up, outside of the initial priority positions identified.

Zoonotic Disease Management

The Zoonotic Disease Management Program enhances State, national, and international collaborative efforts to promote healthy animals, people, and ecosystems by addressing diseases that pass between animals and people. This integrated approach is known as “One Health.” One Health is a collaborative, multisectoral, and trans-disciplinary approach—working at the local, regional, national, and global levels—with the goal of achieving optimal health outcomes recognizing the interconnection between people, animals, plants, and their shared environment.

According to the U.S. Centers for Disease Control and Prevention (CDC) and the World Animal Health Organization (OIE), 60 percent of human pathogens are zoonotic and 75 percent of emerging diseases are zoonotic (including ebola, zika, MERS, and SARS), most originating from animal reservoirs. These statistics support the value of a One Health approach. APHIS provides national leadership in addressing the animal health component of the One Health approach. In doing so, the Agency contributes animal health expertise, infrastructure, and networks in combination with those of human and environmental health to provide holistic solutions to complex One Health problems. The Agency collaborates with industry and State partners to develop strategies, policies, and training to help stakeholders effectively engage with public health counterparts, provide guidance, facilitate information exchange, and enhance responses to One Health issues. By enhancing APHIS’ efforts to address the animal health component of One Health, the program protects public health and improves animal health and marketability.

Zoonotic Disease Engagement, Investigation, and Response

APHIS works with international, national, State, and industry partners to address zoonotic diseases, such as *Salmonella* and variant influenza. *Salmonella* bacteria causes an estimated 1.2 million human illnesses, 19,000 hospitalizations, and 370 deaths annually in the United States (according to a 2011 Centers for Disease Control and Prevention analysis). Although most salmonellosis outbreaks result from foodborne transmission, they can also result from contact with animals and animal environments. It has been estimated that *Salmonella* infections transmitted through animal contact cause 11 percent of all salmonellosis annually. In FY 2018, APHIS collaborated with CDC and State Departments of Public and Animal Health to investigate several multistate outbreaks of human *Salmonella* infections linked to contact with live poultry in backyard flocks, especially chicks and ducklings obtained from mail-order hatcheries. These outbreaks resulted in a total of 334 people infected with the outbreak strains of *Salmonella* reported from 47 states. To prevent infections linked to live poultry, APHIS applied a One Health approach for control and prevention. This approach unifies animal and human health needs and takes into account the environments at the hatcheries where poultry are produced, the agricultural retail stores where poultry are sold, and the customers who own and raise poultry. Additionally, APHIS provided epidemiologic and laboratory support to the CDC outbreak investigations, and distributed educational and outreach materials directed to the consumer, backyard flock owner, feed stores, and mail-order hatcheries. APHIS continues to assist this segment of the poultry industry through a voluntary *Salmonella* monitoring program and publication of best management practices to mitigate *Salmonella* contamination at poultry hatcheries.

Typically, influenza A viruses in swine do not infect humans, but rare human infections have been reported, usually after direct or indirect exposure to pigs. Influenza viruses that normally circulate in pigs are called “variant” influenza viruses when they are found in people. Because of its complex ecology and risk of interspecies transmission, influenza requires a One Health approach to prevent, detect, and respond to the spread of influenza between pigs and people. In FY 2018, a total of 14 human infections were reported to the CDC. APHIS continues to work with CDC, State public and animal health officials, and academia to investigate these detections and provide diagnostic results. APHIS, CDC, and State laboratories rapidly share diagnostic sequence findings.

Antimicrobial Resistance

Antimicrobial resistance (AMR), as it relates to the Zoonotic Disease Management program, is the ability of a microbe in an animal to resist the effects of medication previously used to treat them. To combat AMR, APHIS also uses a One Health approach involving multidisciplinary coordination from public health and animal health sectors, and private sector organizations and stakeholders. APHIS works with its State, Federal, and industry partners to promote the judicious use of antimicrobials, which will support a strong, healthy, and thriving U.S. animal agriculture system as well as public health. Additionally, APHIS collaborates with State Departments of Agriculture, diagnostic laboratories, and public health officials to address AMR infections in humans that have been found to have an animal component.

In FY 2018, APHIS continued to work with other USDA agencies to develop practical mitigation strategies to reduce AMR prevalence. These strategies cover a broad array of efforts to address AMR in human and animal health, including AMR surveillance at the farm level, collection of antimicrobial drug use data, and efforts to promote stewardship of antimicrobial drugs by animal owners and veterinarians. In FY 2018, APHIS completed two studies of on-farm antimicrobial use and stewardship: one on swine operations, and one on cattle feedlot operations. APHIS will publish the reports of these two studies in FY 2019. APHIS also completed a beef cow-calf study in FY 2018, which collected data on antimicrobial use and stewardship in cow-calf operations, and sampled for AMR in pathogenic and commensal organisms. APHIS collaborated with other USDA agencies, including the Food and Drug Administration's (FDA) Center for Veterinary Medicine (CVM), and the CDC to produce a review article for the World Organisation for Animal Health describing the One Health AMR activities performed in the U.S. within each agency.

APHIS epidemiologists continued to support the development of on-farm antimicrobial use metrics that academic partners developed, collaborating to review and audit the researchers' methods and data streams. This activity is in support of the FDA-CVM approach to measure the use of antimicrobial drugs in food producing animals. APHIS also provided updates on activities to partner agencies that measured progress in completing work associated with the National Action Plan for Combating Antimicrobial Resistance. In addition, APHIS, in conjunction with FDA, completed the first year of a pilot program for collecting antimicrobial susceptibility data from veterinary diagnostic laboratories. The pilot was successful in meeting its objective of identifying a method to collect, analyze, and report standardized data from veterinary diagnostics laboratories across the country. In FY 2019, APHIS will continue the pilot program and collaborate with FDA and others to expand the number of labs providing data, expand the options for reporting to include a graphic interface for real-time data reporting, and expand the analysis of the data to include sequencing.

In FY 2018, APHIS developed a whole genome sequencing AMR pipeline to analyze bacterial isolates. APHIS initiated a study of 17 common *Salmonella* serotypes across all major animal groups, which incorporated antimicrobial susceptibility testing. APHIS collaborated with multiple State animal and public health departments to investigate multi-state outbreaks of *Salmonella* in dairy calves. The retrospective study helped develop whole genome sequencing pipelines for analysis and also provided additional data to better discover the outbreak's origins and spread. APHIS also worked closely with the CDC to investigate human outbreaks of drug resistant bacterial organisms stemming from animal origins. APHIS analyzed multiple outbreaks of various *Salmonella*, and shared the results with public health partners.

APHIS participated in several international AMR activities in FY 2018. APHIS provided comments on several chapters of the OIE Terrestrial Animal Health Code related to AMR. Additionally, APHIS and FDA provided input to the OIE ad hoc group developing a global database on antimicrobial drug use. APHIS also continued its work on to combat AMR at the international level. In FY 2018, APHIS participated in the biannual in-person Transatlantic Task Force on Antimicrobial Resistance at the U.S. CDC in March 2018, sharing information on animal health initiatives between the United States and European Union. APHIS will continue to review AMR related statements and positions that stakeholders and other governmental and nongovernmental agencies promulgate that may have implications for animal agriculture.

Pandemic and Animal Disease Preparedness

In FY 2019, APHIS provided animal health subject matter expertise to the North American Plan for Animal and Pandemic Influenza, which strengthens trilateral preparedness and response capabilities for human and animal health in Mexico, Canada, and the United States. Additionally, APHIS collaborated in several cross sector meetings and conference calls to discuss methods to improve data sharing and emergency and risk communications.

APHIS works to strengthen emergency preparedness and response to avian influenza and other zoonotic diseases using a One Health approach. APHIS, along with animal and public health officials from the CDC and State level, identified ways to use a risk-based approach to influenza like illness monitoring and the reasons for delays in exchange of information, with the goal of increasing efficiency and effectiveness of health monitoring for avian responders. In FY 2018, APHIS worked with States to review response protocols for a potential pandemic strain of avian influenza, hosting a tabletop exercise with animal and public health officials from 37 States. This exercise was the first to consider how animal health and public health officials would modify existing response protocols, yielding specific actions for State and Federal agencies to strengthen multisector response in future outbreaks.

In FY 2018, APHIS and Food Safety and Inspection Service met with state animal health officials and industry representatives to share information and strategies related to pre-harvest food safety process improvements and address a Government Accountability Office recommendation to develop a framework for certain pre-harvest food safety process events. The overall goal is to improve food safety and reduce pathogen transmission between animals and humans. The focus of the workshop was to begin these discussions on process improvement.

Global Health Security

The Global Health Security Agenda (GHSA) is a growing partnership of over 50 nations, international organizations, and non-governmental stakeholders to help build countries' capacity to help create a world safe and secure from infectious disease threats and elevate global health security as a national and global priority. Effective coordination and collaboration across all levels of the human, livestock, security/defense, foreign affairs, environment and wildlife health sectors are vital to accomplish the GHSA vision. In support of the GHSA, APHIS works with Federal partners to protect the United States from infectious animal disease threats.

APHIS coordinates USDA efforts related to antimicrobial resistance, zoonotic disease, biosafety and biosecurity, national laboratory systems, real time surveillance, and workforce development, ensuring interagency collaboration and communication in addition to interfacing with other U.S. government agencies. APHIS works with other U.S. government agencies to strengthen the areas that were identified as having less than sustainable capacity, including the coordination and collaboration necessary for an effective One Health response to a disease outbreak.

The major accomplishment of GHSA is the development of a voluntary country evaluation process that assesses a country's ability to prevent, detect, and respond to infectious disease threats. In FY 2018, APHIS was able to support two requests for animal health capacity building activities and provided animal health training to government officials from four countries. Additionally, APHIS helped to establish the new framework for GHSA 2024 which was presented in November 2018.

Selected Examples of Recent Progress - Plant Health:

Agricultural Quarantine Inspection

Through the Agricultural Quarantine Inspection (AQI) program, APHIS and the Department of Homeland Security's (DHS) Bureau of Customs and Border Protection (CBP) safeguard U.S. agricultural and natural resources from the introduction of invasive pests and diseases. To exclude foreign pests and diseases, APHIS assesses the risks associated with international trade and specific imported agricultural products and develops import regulations to protect U.S. agriculture. In addition, the Agency conducts off-shore pest risk reduction activities including pre-departure inspections of passenger baggage and cargo destined for the continental United States from Hawaii and Puerto Rico and foreign commodity pre-clearance programs; trains agricultural inspectors and detector dog teams to work at U.S. ports of entry; inspects and takes action as necessary on imported plant propagative materials; monitors the fumigation of arriving containers and cargo where necessary to mitigate pest risks; conducts trade compliance activities to detect potential violations of APHIS' import regulations and prevent smuggling; and provides the scientific support necessary to carry out these activities and those carried out by CBP, including, among other things, the authoritative and timely identification of pests necessary to determine whether regulatory actions on imported products are required.

APHIS receives appropriated funding for pre-departure inspections of passengers and cargo traveling from Hawaii and Puerto Rico to the continental United States to prevent the introduction of non-native agricultural pests and diseases into the continental United States while facilitating the movement of travelers and agricultural goods. Because of the high volume of travelers from these islands to the continental United States, along with the risks associated with numerous fruits, vegetables, and animal products associated with these areas, APHIS inspects all passenger baggage leaving these islands. When inspectors identify an item that poses a specific risk, they take immediate action to prevent the entry of materials that could harbor the pest or disease in question. This action prevents damage to the country's agricultural industry and negates the need for costly control and eradication

programs. APHIS also partners with industry groups and State and Commonwealth counterparts to facilitate the safe movement of cargo. In Hawaii, the State Department of Agriculture conducts nursery inspections and certifies nursery stock for shipment to the continental United States.

In addition to the appropriated funding, APHIS collects AQI User Fees under the authority of The Food, Agriculture, Conservation, and Trade Act of 1990, to recover costs for services provided by APHIS and CBP associated with preclearance inspections of passengers and the port-of-entry arrival of commercial vessels, trucks, loaded railroad cars, aircraft, and passengers entering the United States from a foreign destination. APHIS inspectors oversee the preclearance of commodities by inspection or treatment, or by monitoring systems approaches for pest mitigation, and managing trust fund agreements with the exporting country and exporter or exporter groups fund these activities. In most cases, exporters of the pre-cleared commodity cover the costs of this APHIS service through trust funds established for this purpose.

Cooperative Program Management

APHIS works with CBP to protect America's agricultural resources and food supply through inspecting international passenger baggage, cargo, and conveyances. APHIS and CBP share management of the program through working groups and close day-to-day collaboration. Senior leadership of both Agencies meet frequently to develop joint plans and coordinate their efforts in priority areas of enhancing security, clear and balanced decision-making, streamlining effective outreach and communication, and improving organizational structure and leadership to support the shared work in the agriculture safeguarding mission. APHIS and CBP improved communication at ports of entry through data system integration improvements, which facilitated the processing of 60,146 diagnostic requests of potential pests or diseases and responses for 24,811 notifications requiring mitigation to reduce pest risks on incoming cargo. In FY 2018, APHIS and CBP developed a Risk Based Sampling (RBS) cargo inspection program to target higher risk plant pests potentially entering the country and utilize current inspection resources more efficiently. APHIS also trained 95 new CBP agriculture specialists, conducted basic agricultural threat training for 1,488 first-line CBP officers, and provided agriculture fundamentals training for 66 CBP import specialists. In addition, APHIS certified 13 experienced CBP agriculture specialists to deliver the military cooperater inspector training to the Department of Defense to use in preventing agricultural pests and diseases from returning to the United States with military equipment and personnel returning from overseas posts in FY 2018. Additionally, APHIS trained 31 canine teams, 16 agriculture field trainers, and 10 agriculture canine team supervisors for CBP.

Pre-Clearance Inspections

One of the most effective ways to facilitate the safe movement of commodities into the United States is to address pest threats where they originate. In FY 2018, APHIS conducted commodity pre-clearance programs in 22 countries with 72 commodities to reduce the pressure on our domestic safeguarding system. Additionally, this offshore work, which importers fully fund, allows inspected, pre-cleared perishable products to enter through U.S. ports of entry without plant health inspection-related delays. In FY 2018, APHIS facilitated and expedited the safe trade movement of more than 1.78 billion pounds of fresh fruits and vegetables and nearly 1.1 billion plants and bulbs, a 10 percent increase over the previous year.

APHIS also works with the U.S. Department of Defense (DOD) to inspect and expedite the entry of military passenger baggage, cargo, personal property and heavy equipment returning to the United States, helping to prevent the unintentional movement of foreign animal and plant pests and diseases. In FY 2018, APHIS recertified 106 military agriculture pre-clearance programs for DOD's European Command, which includes Europe and Africa. These pre-clearance programs resulted in the successful clearance of 15,697 household goods shipments, 7,989 unaccompanied baggage shipments, 10,758 privately owned vehicles, and 292,056 pieces of military cargo including equipment, rolling stock, track vehicles, and munitions into the United States. Designated APHIS personnel delivered agricultural preclearance training and certification to military personnel, Stateside and in locations in the Middle East, Central Asia, Europe, South America, and Africa. In FY 2018, APHIS trained more than 500 DOD Central Command personnel in the United States deploying to missions overseas.

Offshore Risk Reduction

To help protect U.S. plant health from pests that could move into our country with high-demand, large volume commodity imports, APHIS conducts certain inspections and certifications overseas to verify that treatment or production facilities meet our standards and regulatory requirements. In FY 2018, APHIS inspected and certified three niger seed heat treatment facilities, 15 *Pelargonium* (geranium) production facilities, one new *Dracaena* production facility in Costa Rica, and two tomato plantlet facilities in Mexico. Niger seed, mainly used for bird seed, is produced in Asia and Africa. While niger seed is not a noxious weed, shipments of the seed may be contaminated with noxious weed seeds and imported shipments must be treated to prevent the noxious weed seeds from germinating. The genus *Pelargonium* includes popular geranium plants, which can carry serious plant diseases.

Geranium plants are a host for *Ralstonia solanacearum* race 3 biovar 2, which the Agricultural Bioterrorism Protection Act of 2002 listed as a select agent due to its severe threat to plant health. The pathogen causes Southern wilt of geranium, brown rot of potato, and bacterial wilt of tomato and eggplant—commercially important crops in the United States. By ensuring that these offshore geranium production facilities meet or exceed minimum production and sanitation standards, APHIS safeguards American agriculture by mitigating the risk of *R. solanacearum* before geranium cuttings reach our shores. APHIS and the nursery industry have successfully worked together on this program for many years. *Dracaena* (a genus containing many types of house plants) and tomatoes can also pose disease risks. These offshore programs allow for the import of desirable products into the United States while mitigating the pest risks.

Pre-Departure Inspections

APHIS inspected the baggage of approximately 11.9 million passengers before they left Hawaii and Puerto Rico and intercepted 271,014 prohibited items and 1,681 quarantine-significant pests in FY 2018. APHIS evaluates the effectiveness of its pre-departure program by measuring the percentage of passengers destined for the continental United States from Hawaii and Puerto Rico that comply with agriculture quarantine regulations. In FY 2018, more than 97 percent of passengers were in compliance (calculated by determining how many passengers are carrying prohibited items through random sampling and comparing it to the actual number of prohibited items intercepted through inspections). To facilitate interstate trade between Hawaii and Puerto Rico and the continental United States, APHIS conducts commodity certification and inspection programs. In FY 2018, the program conducted 84,460 inspections of regulated agricultural commodities shipped from Hawaii and approximately 16,318 inspections of regulated agricultural commodities shipped from Puerto Rico. In addition, the program oversaw or conducted 2,959 cargo treatments in Hawaii and 2,095 cargo treatments in Puerto Rico. APHIS continues to conduct methods development activities that expand the treatments available to allow additional fruits and vegetables to be shipped from these islands to the continental United States.

Port-of-Entry Inspections and Pest Interceptions

In FY 2018, more than 181 million passengers and pedestrians entered the United States by air, bus, ship, train, or on foot. CBP agriculture specialists inspected the baggage of 19.5 million of these travelers for agricultural risks through manual inspection, x-ray technology, or detector dogs. The program also conducted secondary agricultural inspections of 538,626 of the 89 million passenger vehicles entering the United States from Canada and Mexico in FY 2018. In addition, inspectors cleared 27,067 ships and more than 1.2 million cargo, mail, and express carrier shipments, intercepting 80,753 pests. Of the travelers inspected, the Agency found approximately 96.8 percent of international air passengers, 97.2 percent of southern border vehicles, and 93.9 percent of northern border vehicles to be in compliance with agriculture quarantine regulations.

Plant Inspection Stations

Importations of nursery stock, and other propagative plant materials, can serve as significant pathways for invasive pests and diseases. To reduce the risks associated with such imports, APHIS requires that certain imported plant materials enter the United States through plant inspection stations, which are located at ports of entry throughout the country at major international airports and seaports, and at major crossings along the U.S.-Mexican border. Specialists at these stations inspect shipments to ensure that imported plants and seeds do not contain pests and diseases of regulatory significance. In addition, they enforce the regulations that apply to the import and export of plant species protected by the Endangered Species Act and the Convention on International Trade in Endangered Species of Wild Fauna and Flora. In FY 2018, inspectors cleared more than 18,500 imported shipments containing more than 1.67 billion plant units (cuttings, whole plants, or other propagative materials) and 632,122 kilograms of seeds of woody plants. Through these inspections, APHIS employees intercepted 1,173 quarantine significant pests at the plant inspection stations. In addition, the stations conducted 795 treatments or other actions to remediate pests on more than 9 million plant units and 7,952 kilograms of seed.

Plant Germplasm Quarantine

APHIS' Plant Germplasm Quarantine Program (PGQP) provides quarantine services for importing plant cultivars and germplasm safely to prevent foreign pathogens from entering our agricultural production areas and environment. In FY 2018, PGQP released the following from quarantine: 32 bamboo clones, six gooseberries, 123 grass clones, one kiwi, 35 pome fruits, 43 potato clones, 49 potato true seed lots, 78 rice seed lots, 39 stone fruit clones, 12 sugarcane clones, four sweet potatoes, and three woody ornamentals. Of those released, the following were due to therapy performed on the infected imported plants: five of the six gooseberries, 15 of the 35 pomes, nine of the 39 stone fruit clones, 12 of the 43 potato clones, five of the 12 sugarcane clones, and two of the four sweet potatoes. New crops imported in FY 2018 included oak trees, a fig, and cassava. Notable shipments included 61 rice seed lots to Mississippi, 195 *Prunus* seedlings to the ARS *Prunus* Repository in California, 173 Hibiscus plants to the Korean

Embassy, and a pine bonsai for former Secretary John Kerry. The program prohibits entry into the United States on these high-risk crops in commercial quantities, but importers can bring in small quantities through an APHIS-approved plant quarantine program, like the one at PGQP. This year, PGQP began implementing next generation sequencing (NGS) to test imported plants for pathogens. Some of this year's grass releases were the first to be tested by NGS, found free of viruses, and then released. The program initiated preliminary experiments using NGS to detect potato and pome viruses in positive control samples.

Pest Identification

When pests are detected in cargo, the program must identify them to determine if they are considered quarantine significant under APHIS regulations (i.e., they are exotic and could pose a significant threat to U.S. plant health, therefore regulated by APHIS as a result) and if the program can allow the cargo entry into the United States (and what, if any, mitigation measures would be required). In FY 2018, APHIS National Identification Services processed and identified 140,822 pests, with 69,891 being quarantine significant pests. To reduce the pests that CBP must submit to APHIS for identification and speed up the inspection process for shipments with no quarantine pests, APHIS and CBP established the Cargo Release Authority (CRA) program in 2006. Through the CRA program, APHIS provides training and job aids that allow CBP agriculture specialists to recognize frequently intercepted, easily identifiable, low-risk organisms and release the cargo if the organism is not a quarantine significant pest. APHIS grants CRA after the agriculture inspector has successfully identified a particular pest a certain number of times and submitted documentation to APHIS. In FY 2018, a total of 81 CBP Agriculture Specialists earned 683 CRAs. Since the inception of the CRA program, APHIS has provided CRA training to 2,152 CBP Agriculture Specialists and granted a total of 15,379 CRAs to CBP Agriculture Specialists.

Risk Analysis

APHIS' Plant Epidemiology and Risk Analysis Laboratory (PERAL) develops pest risk analyses and epidemiological approaches to pest exclusion. In FY 2018, PERAL completed 331 risk analyses associated with imports, exports, invasive pest threats, and programmatic requirements. This total includes 33 analyses to open, expand, or maintain export markets for U.S. producers. The laboratory's work also included evaluations of 250 new or exotic pests for potential risk to U.S. agriculture, 23 risk assessments, and 38 revisions of risk assessments for import requests from foreign countries. These pest risk analyses identify potentially harmful plant pests and diseases that need to be mitigated before APHIS would allow the imported products in the United States.

Smuggling Interdiction and Trade Compliance (SITC)

SITC's core responsibility is to analyze, identify, and close potential smuggling pathways into U.S. commerce. SITC uses a multi-pronged approach that focuses on traces for non-compliant import materials, coordinating with investigative organizations across USDA and CBP, and extensive outreach to industry to increase compliance with APHIS' regulatory requirements. SITC works closely with CBP to identify and target potential agricultural risks at the ports of entry before they enter U.S. commerce and pose a threat to U.S. agriculture. In coordination with CBP, APHIS conducted 10 port-of-entry operations that focused on specific pathways, prohibited commodities, and higher risk countries of origin. In FY 2018, APHIS seized 1,501 prohibited agricultural items in retail commercial locations, 560 items from internet sales, and 1,406 from courier surveys. Those seizures totaled 678,453 pounds of prohibited and/or restricted plants and plant products and meat and meat products valued at \$2.5 million. Additionally, APHIS conducted 28 recalls due to multiple wooden hand crafted products with bark that did not meet treatment and entry requirements, posing a risk for borers (insects that bore into trees and that could pose risks to U.S. forests). APHIS also conducted a recall for decorative bird nests containing noxious weeds. Total seizures as a result of recalls weighed 29,041 pounds and were worth an estimated value of \$248,871.

Phytosanitary Export Certification

APHIS facilitates the export of agricultural shipments by tracking plant health import requirements for approximately 200 countries and provides certifications to U.S. exporters to help ensure that U.S. products meet other countries' requirements. More than 2,100 Authorized Certification Officials at the Federal, State, and county levels can access countries' certification requirements on-line and conduct inspections to issue phytosanitary certificates. These certificates facilitate the entry of commodities into foreign markets. The program employs a web-based Phytosanitary Export Database. This database, which is free to exporters, enables them to research requirements and better prepare for shipping. In addition, this program uses a Phytosanitary Certificate Issuance and Tracking (PCIT) database that allows exporters to apply for certificates, schedule inspections, and pay certification fees. PCIT also collects State and county cooperator fees in addition to the USDA fees for phytosanitary certificates. In FY 2018, APHIS collected more than \$42 million for certificates and remitted more than \$21 million to State and County cooperators for certificates they issued. Currently, 34 States and 33 counties use this feature. PCIT also enables APHIS to capture export application information, document inspection and certification

information, print an original phytosanitary certificate on secure paper, and generate export reports. Additionally, the Agency is continuing its effort with international counterparts to begin exchanging phytosanitary certificates electronically. APHIS recently worked with the International Plant Protection Convention to establish an electronic hub that countries can access to exchange export certificates with trading partners. The hub provides a central point for document exchange that eliminates the need for countries to establish electronic connections with each trading partner individually. Recent studies by industry have shown that paperwork errors slow down exports, leading to the majority of costly delays. The United States began using the hub in May 2018 and is already actively exchanging certificates with Argentina, Chile, and New Zealand, with more than 30,000 phytosanitary certificates received and more than 10,000 sent. In August 2018, APHIS conducted a case study with Argentina, in which there was no back-up paper certificate. Argentina allowed the case study shipment to enter the country without any problems. APHIS will conduct more case studies in conjunction with industry participants to identify any remaining obstacles to fully implementing paperless exchange with participating countries. In FY 2018, APHIS, State, and county officials issued more than 725,000 Federal export certificates for agricultural shipments.

Cotton Pests

The Cotton Pests program works with growers, the cotton industry, states, and Mexico to eradicate the boll weevil (BW) and pink bollworm (PBW) from all cotton-producing areas of the United States and northern Mexico. Collectively, the BW and PBW are the most destructive pests of cotton worldwide. The Cotton Pests program also maintains preparedness capabilities to address other cotton pests that could enter the United States. APHIS provides national coordination, operational oversight, and technology development (such as sterile moth production for PBW eradication), while program partners have provided more than two-thirds of the funding for the BW eradication effort and most of the operational funds for PBW eradication. APHIS also provides technical advice on trapping and treatment protocols to its partners in Mexico for their eradication efforts.

According to an analysis completed by the Mississippi Boll Weevil Management Corporation, the BW has cost cotton growers more than \$13 billion since it entered the United States in the late 19th century. APHIS began an area-wide BW eradication program in 1983. The BW eradication effort involves mapping cotton fields, using pheromone traps to evaluate weevil presence, and applying pesticides. PBW eradication uses PBW-resistant cotton, mating disruption techniques, insecticide treatments, and sterile moth releases. Once these pests are eradicated, the programs will conduct long-term surveillance to guard against re-infestation and take action if re-infestation occurs. After the BW and PBW are eradicated from an area, cotton growers rely far less on insecticides, thus reducing their production costs. Over the course of the eradication effort, the program has increased these growers' global competitiveness, primarily through reduced production costs and increasing yields.

To date, APHIS and cooperators have eradicated BW from 99.5 percent of the 14 million acres of U.S. cotton. The Lower Rio Grande Valley (LRGV) is the last zone within the United States where boll weevil persists. The LRGV is impacted by the neighboring Mexican cotton producing State of Tamaulipas and the area's security issues. In FY 2018, APHIS continued to work with partners in overcoming program challenges. The Agency, along with the Mexican cotton industry, and U.S. cotton industry are working together to eradicate BW from Tamaulipas. For example, APHIS is in its third year of an agreement with the North American Plant Protection Organization to assist the Tamaulipas BW Eradication Program by funding ultra-low volume Malathion and aerial treatment expenses. The Mexican cotton industry has also limited the amount of cotton acreage planted in Tamaulipas to keep these treatment expenses as low as possible, and the Texas Boll Weevil Eradication Foundation (TX-BWEEF) provided regional management of the area and technical assistance through the use of their smart device application for trapping and treatment activities. Tamaulipas employees running this application on their smart phones allow TX-BWEEF managers to monitor trap deployment, trap servicing, and treatment activities in real time. The Mexican cotton industry in Tamaulipas has also assessed their growers for program expenses and this assessment is non-refundable.

In FY 2018, APHIS began meeting every six weeks with Mexico's National Service for Agrifood Health, Safety and Quality (SENASICA) to discuss the boll weevil program in Tamaulipas. SENASICA plans to increase their involvement in the Tamaulipas program in FY 2019 and has developed an organized program operational structure to do so.

FY 2018 saw an increase in BW captures, up to 77,410 in the LRGV, compared to 30,201 in FY 2017. In addition, captures were up in Tamaulipas with 54,316 BWs captured in FY 2018, compared to 17,163 in FY 2017. Plow down dates were not adequately enforced in Mexico in 2017, which resulted in hostable material being available for BW. Tamaulipas started 2018 with very high early season BW captures due to this lack of plow down. This resulted in an overall increase in BW captures in both LRGV and Tamaulipas in 2018. Beginning June 2018, APHIS started conducting frequent meetings with SENASICA to discuss increased transparency and oversight of the BW program

in Tamaulipas. SENASICA is increasing their involvement in 2019 and developed an organized program operational structure to do so. The operational structure change includes stationing more of SENASICA employees in Tamaulipas for program oversight and operations, cotton plow down enforcement in September, and more streamlined operations. In September 2018, SENASICA informed APHIS that all fields had been plowed down. In addition, the Mexican cotton industry has limited planting to 10,000 Hectares in 2019 and has instituted a non-refundable assessment to use for program expenses.

In the United States, although the volume of acreage planted with cotton varies from year to year, the PBW commonly caused cotton losses of 20 percent or more in affected areas. Since the PBW control program began in 1967, APHIS and cooperative program partners have eradicated the PBW from Southern California, Arizona, large areas of New Mexico, and the El Paso/Trans Pecos region of Texas. APHIS issued a federal order releasing Arizona, California, New Mexico and Texas from the PBW quarantine on September 26, 2018. The federal order also designated generally-infested areas in South Florida where PBW populations have been found. These regulated areas do not produce cotton. On October 19, 2018, U.S. Secretary of Agriculture Sonny Perdue, in conjunction with industry partners, officially announced the successful eradication of PBW from all commercial cotton-producing areas in the continental United States.

In FY 2019, APHIS will continue to reduce the BW population in the LRGV and partner with the U.S. cotton industry on BW surveillance efforts for all U.S. cotton production areas. APHIS will also partner with SENASICA's Mexican BW eradication program in Tamaulipas to provide technical assistance and funding for their parallel program to the LRGV program, and will continue to provide technical assistance to the Laguna region of Coahuila and Durango to help reduce BW pressure. We are committed to monitoring for BW to ensure we detect any reintroductions quickly. APHIS will continue to work toward successful eradication of BW in the United States in the coming years. By controlling and eradicating these two devastating cotton pests, APHIS protects continued export opportunities for U.S. cotton growers and significantly lowers production costs.

Field Crop & Rangeland Ecosystems Pests

The Field Crop and Rangeland Ecosystem Pests (FCREP) program protects U.S. agricultural crops and rangelands from the establishment or spread of invasive or economically significant pests, facilitates safe international trade and domestic commerce, preserves economic opportunities for U.S. farmers, and fosters healthy ecosystems in rangelands and natural lands. To accomplish these goals, APHIS provides national coordination, threat assessment, and strategies to prevent pests and diseases such as Grasshoppers and Mormon crickets, Imported Fire Ants, Karnal bunt, and witchweed from spreading and impacting export markets for U.S. farmers. These programs help protect resources that small, rural communities depend on for income.

Grasshoppers and Mormon crickets (GMC)

Through the FCREP program, APHIS cooperates with Federal, State, Tribal, and local agencies, organizations, and institutions to conduct survey and suppression activities in western States to reduce damage that GMC outbreaks cause, protecting resources valued at nearly \$8.7 billion (according to a 2012 Economic Analysis prepared by University of Wyoming through a cooperative agreement with APHIS). Uncontrolled GMC infestations could cause significant economic losses for U.S. livestock producers by reducing animal food supply in rangeland and therefore forcing producers to buy supplemental feed or sell their livestock at reduced prices. Besides feeding on grass, GMC can also devastate cultivated crops such as alfalfa, wheat, barley, and corn. Infestations often cover vast acreage, and landowners may need Federal support to control them. The program helps land managers by providing population information, helping to predict where grasshopper populations could develop into outbreaks, and providing technical assistance about options for dealing with problem-level populations. By providing ongoing information, and advice to land managers and conducting control treatments where necessary and possible, this program helps protect 661 million acres of rangeland across the western United States.

In FY 2018, APHIS conducted surveys in 17 States for GMC, collecting data at more than 28,000 survey points. Grasshopper populations remained below outbreak levels in many areas in FY 2018, and subsequently, APHIS conducted fewer treatments than in FY 2017. Based on the results of the surveys and needs of land managers, the program treated approximately 5,260 acres of rangeland, which protected rangeland forage and wildlife habitat on approximately 19,402 acres. APHIS conducted several small treatments in Arizona for grasshoppers and in Washington and Idaho for Mormon cricket populations. APHIS continued conducting treatment trials on private rangelands in New Mexico. If successful, the trials will result in a new treatment option for grasshoppers and Mormon crickets. To date, large areas originally treated in 2015 have seen grasshopper populations remain below treatment thresholds and preliminary evidence suggests minimal impact on non-target arthropods. Before conducting any treatments, APHIS confirms the species of the grasshopper as some do not cause damage to rangeland and

others can even provide ecological benefits by eating weeds (leaving grasses for grazing livestock). APHIS continued to update the programmatic environmental assessment that covers all 17 States that could experience GMC outbreaks. The Agency completed the last such assessment for the GMC program in 1987. This updated document will facilitate treatments and help APHIS ensure that it is taking appropriate action to prevent grasshopper treatment impacts on wildlife habitat and wetlands, among other things.

Imported Fire Ant (IFA)

FCREP activities also prevented the spread of IFA into new areas. This pest is a public nuisance and causes approximately \$6.3 billion in annual damage to homeowners, industry, and agricultural commodities, such as corn and soybean (according to a 2006 Texas A&M University study). IFA infests more than 366 million acres in Puerto Rico and 14 States: Alabama, Arkansas, California, Florida, Georgia, Louisiana, Mississippi, New Mexico, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, and Virginia. Each of these States/territories is under a partial or full-state quarantine. The program provides treatment guidelines for land managers to help them remove IFA from their products and prevent the human-assisted spread of IFA on regulated articles. To do so, the program evaluates the efficacy of regulatory treatments for preventing IFA spread and works with States, industry, and other Federal agencies to develop insecticides and biological control agents. In FY 2018, the program and state cooperators expanded the use of the rapid identification test kit for IFA. This assay, which uses a type of dip-stick test, provides identification of red imported fire ants (*Solenopsis invicta*) and hybrids in as little as 5-minutes, without having to ship specimens to an identifier. Previously, shipments with suspicious ants would be held at agricultural checkpoints for up to 24 hours until the identification was made. The dip-stick test uses as few as five specimens to provide the results quickly. APHIS provided the test kits to State departments of agriculture in FY 2018 for additional field-testing. In FY 2019, State departments of agriculture will be able to purchase the kits for future. Additionally, APHIS updated an interactive IFA quarantine map with features that display the quarantine boundaries to assist nursery owners and others in determining if they are located in the quarantine area. During the wildfire season of 2018, when wildfires impacted pasture for livestock in many States, the map allowed shippers of hay to determine whether they had to meet IFA quarantine shipping requirements and, in doing so, helped prevent the spread of IFA to new areas through the movement of hay. APHIS met the program's performance target of no IFA infestations established outside of regulated areas that could be attributed to the movement of regulated articles infested with fire ants. In FY 2018, the quarantine area expanded into new counties in Tennessee and North Carolina due to natural spread of the pest.

APHIS and cooperators completed releases of several species of phorid flies as biological control agents to target IFA in FY 2018. In FY 2019, APHIS and cooperators from USDA's Agricultural Research Service will continue to evaluate other potential biological control agents for IFA, with a particular focus on identifying species that would be suited to areas where the phorid flies could not establish due to climate conditions.

Karnal bunt

The FCREP program also addresses Karnal bunt, a fungal disease of wheat that was first detected in the United States in 1996. Many U.S. trading partners will not accept U.S. wheat unless it is certified to originate from areas where Karnal bunt is known not to exist. The program prevents the disease from entering the grain market system, spreading beyond the areas of Arizona where it is currently found, and directly affecting most other States. In 2017, farmers across the country planted approximately 46 million acres of wheat and harvested 1.7 billion bushels of wheat with a value of over \$8 billion (National Agricultural Statistics Service, Crop Values 2017 Summary). By keeping Karnal bunt contained to portions of one State, the program protects this wheat production across the country. In FY 2017, at the request of the grain and dairy industry, APHIS evaluated wheat, durum wheat, and triticale grown in Karnal bunt-regulated areas that are harvested for silage. APHIS' pathway analysis determined that the crops grown for silage posed a negligible risk of spreading Karnal bunt. As a result of this evaluation, APHIS created a new market for straw produced in Karnal bunt-regulated areas in FY 2018, while still preventing the spread of the disease. USDA's Economic Research Service estimated in 2010 that, without the program's efforts, there would be a cumulative reduction of national net farm income of \$8 billion over the next eight years. In FY 2018, 31 wheat-producing States participated in the Karnal bunt national survey. The program anticipates testing more than 800 samples for the year, with no positive samples reported as of October 2018. Based on this national survey, the program certifies wheat exports free of Karnal bunt, assuring trading partners about the safety of U.S. wheat exports, retaining export markets, and facilitating wheat movement into domestic and international markets. In 2017, the United States exported wheat with a value of nearly \$6.1 billion (National Agricultural Statistics Service, Crop Values 2018 Summary); without the Karnal bunt program to certify these exports, wheat trade would be disrupted.

Witchweed

Another concern for the FCREP program is witchweed, a parasitic plant that can significantly damage corn, sorghum, and sugarcane. If witchweed were to spread throughout the Corn Belt, it could decrease crop yields for corn and sorghum by 10 percent and could negatively impact trade in commodities from these areas. Since program activities began in 1957, APHIS and cooperators have successfully eradicated witchweed from 99 percent of the infested areas in North Carolina and South Carolina. These activities consist of frequent field inspections, treatment of infested acres (tillage, ethylene injections to stimulate seeds to sprout, and hand-pulling and herbicide application), conducting post-eradication surveys, and addressing any new infestations. The program surveyed a total of nearly 49,000 acres in 2017 for witchweed. Approximately 1,266 acres were infested at the beginning of the season, and 142 acres were newly infested or re-infested during the season. In 2017, APHIS treated 1,701 acres. Because witchweed seeds can remain viable in the soil for up to 15 years, and a host plant must be present for witchweed germination, year-to-year fluctuations in the number of acres infested are common. By preventing the spread of this damaging weed, the program indirectly protects more than 90 million acres of corn valued at \$48 billion in 2017 (National Agricultural Statistics Service, Crop Values 2018 Summary).

Pest Detection

The goal of the Pest Detection Program is to document the presence or absence of plant pests and diseases of Federal regulatory significance in the United States. This documented information serves as the basis of APHIS' regulatory efforts and pest management programs that preserve economic opportunities for farmers (i.e., interstate commerce and international trade) and safeguard U.S. agricultural and natural resources. The program works with Federal agencies, state departments of agriculture, Tribes, academic institutions, and industry partners in all 50 States and several U.S. Territories to conduct these program activities.

APHIS and its State cooperators carry out plant pest surveys through the Cooperative Agricultural Pest Survey Program. APHIS provides national coordination for the program and develops policies and procedures for commodity- and resource-based surveys. These surveys enable APHIS and cooperators to target high-risk hosts and commodities, gather data about pests specific to a commodity, and provide accurate assessments of pest distribution, including pest-free areas. Early pest detection is important to avert economic and environmental damage; once a pest becomes established or spreads significantly, the mitigation costs can reach millions of dollars. This is in addition to lost farm revenues and damage to ecosystems. Additionally, while many entities are involved in protecting crops and resources, APHIS verifies that U.S. products do not pose risks to other countries. Pest surveys conducted through the program demonstrate absence of a pest, and are used in some cases to help address importing countries' phytosanitary requirements and retain access to many foreign markets.

In FY 2018, APHIS and cooperators conducted a total of 273 commodity- and taxon-based surveys in 50 States and 3 territories (APHIS conducted 155 surveys and the States conducted 118 surveys). The program targeted 128 high-risk priority pests of national concern for survey in corn, oak, pine, small grains, soybean, and nursery crop commodities, as well as exotic wood boring bark beetles and cyst nematodes, among others, representing 96 percent of the target pests suggested for survey in the 2018 Pest Surveillance Guidelines. Including pests of State priority, the program targeted 259 unique pests for survey in FY 2018, surpassing its performance target of 240. Surveys consisted of multiple pests for efficiency and economy of survey, with an average of 5.2 pests per survey, 23 pests per State, and 4-5 surveys per State. Along with surveys conducted through the FY 2018 Farm Bill Plant Pest and Disease Management and Disaster Prevention program, APHIS and cooperators added 193 additional taxon and specialty crop commodity surveys resulting in the targeting of 466 unique pests in the overall pest surveillance effort.

APHIS and its cooperators, including information reported to APHIS through entry in the National Agricultural Pest Information System database, detected and confirmed 12 new or re-introduced species in the United States through Pest Detection surveys. Examples include: *Calacarus citrifolii* (Citrus gray mite), *Enema pan* (a dynastine beetle), and *Fibroidium abelmoschi* (a powdery mildew fungus) in Hawaii; *Erwinia aphidicola* (a plant pathogenic bacterium) and *Ustilago esculenta* (a fungal smut pathogen) in California; *Aleuroplatus validus* (a whitefly) and *Aceria litchi* (Lychee mite) in Florida; *Dichromothrips smithi* (Orchid thrips) in Pennsylvania; Sugarcane streak mosaic virus in Louisiana; and *Aeneolamia albofasciata* (a froghopper) in Arizona. When the program detects new pests, APHIS evaluates the pest and works with the State to determine the next steps in the response, which could include regulatory and control measures. In addition to the annual surveys and pests that the program detects each year, the Pest Detection program increases awareness of invasive plant pests and diseases and ensures that trained professionals are in the field, monitoring the health of U.S. agricultural production areas, forests, and rangelands.

The program's target for FY 2018 was to detect, through the surveys, 88 percent of the significant pest introductions before they spread from the area of original colonization and caused significant economic or environmental damage. The program exceeded their target in that all (100 percent) new detections were localized at the time of their detection in FY 2018. The program did not detect any of the high-risk pests of national concern that were targeted for survey through the two programs, demonstrating freedom from these high-risk pests nationally.

Plant Protection Methods Development

The goal of the Plant Protection Methods Development (PPMD) program is to develop scientifically viable and practical tools for exotic plant pest exclusion, detection, and management. These tools preserve economic opportunities for farmers and industries that engage in interstate commerce and international trade, and safeguard U.S. agricultural and natural resources from invasive plant pests. The program plays an essential role in APHIS' mission by developing tools for detecting exotic pests in survey programs; developing molecular diagnostic tests and identification tools for pest identification; developing integrated pest management methods, including biological control, to help eliminate or manage invasive pests; and developing phytosanitary treatments to support interstate and international trade. A major focus of this program is to develop and implement biological control technologies that allow for the use of natural enemies alone, or in combination with other control tactics, to effectively mitigate the impacts of introduced, invasive insect pests, weeds, and plant pathogens, while minimizing impacts to the environment.

The PPMD program aims to develop new, or improve existing, tools each year to enhance APHIS' safeguarding capabilities. For pest identification, the program continues to design, develop, and deliver digital, media-rich, identification tools for APHIS to support trade and domestic, port, and offshore pest identification responsibilities. In FY 2018, the Agency released new and updated products to identify exotic bees, invasive aquatic weeds, and noxious weed seeds. The program also enhanced the *imageID* tool to assist with the identification of pests intercepted at ports, adding more than 15,000 images in FY 2018 for a total of 130,000 images.

APHIS advanced new technologies for pest detection and management, including the use of unmanned aerial systems and detector canines. The Agency is optimizing unmanned aerial systems for a number of applications, including detecting signs of Asian longhorned beetle infestation in trees and for releasing sterile insects in pest eradication programs. The program began deploying canines to detect Mexican fruit fly, coconut rhinoceros beetle, and citrus greening to support pest detection in management programs.

Other advances in domestic pest programs include methods to support two new emergency programs, spotted lanternfly in Pennsylvania and European cherry fruit fly in New York. APHIS has identified attractant chemicals for lure and traps for spotted lanternfly, and has developed effective insecticide application methods for host trees that the program is applying in the eradication program. The Agency developed a systems approach for European cherry fruit fly to allow fruit movement from quarantine areas to support impacted growers.

The PPMD program also supports methods development for ongoing pest program issues. Advances include the evaluation of new automated systems to improve the efficiency of Mexican fruit fly rearing for the eradication program, and a new method to provide a more reliable method for determining the mating status of invasive fruit flies, which helps the program decide if it should establish a quarantine in eradication programs. The Agency also developed improved DNA diagnostics to more efficiently identify Asian gypsy moth in traps and new attractants for a new detection trap for Asian longhorned beetle.

The PPMD program also maintains its own quarantine and/or rearing facilities for biological control agents in Arizona, California, Colorado, Massachusetts, Michigan, Texas and Guatemala. APHIS partners with USDA's Agricultural Research Service, the U.S. Fish and Wildlife Service, State departments of agriculture, universities in 30 States and territories, and two Native American Tribes to evaluate and establish biological control agents for invasive plants, pests, and diseases. Some key program targets included Asian citrus psyllid, brown marmorated stink bug, emerald ash borer, Asian longhorned beetle, hemlock woolly adelgid, spotted wing drosophila, mile-a-minute-weed, Dalmatian toadflax and Russian knapweed.

A biocontrol rearing facility in Mission, Texas, produced a cumulative total of 8.9 million biological control agents for Asian citrus psyllid (vector for citrus greening) since releases began in 2011. Assessments of area-wide management in south Texas showed a 92 percent reduction in the Asian citrus psyllid population since the program started in 2011. The program also showed that augmented releases of several native predatory insects reduced ACP populations and could be incorporated into an ACP control program.

Research on emerald ash borer biological control agents has identified species climatologically adapted to cooler or warmer U.S. regions to better target biocontrol releases, and has shown that a biological control agent and native predators are protecting the next generation of white ash in eastern forests.

Specialty Crop Pests

The goal of the Specialty Crop Pests (SCP) Program is to protect U.S. fruits and vegetables, tree nuts, horticulture, and nursery crops from adverse impacts associated with invasive pests, such as crop damage or threats to international trade and interstate commerce. APHIS works with State, Tribal, university, and industry partners to develop and implement practices, policies, and regulations that prevent or mitigate impacts for invasive pests of Federal regulatory significance. These activities include verifying pest distribution, identifying and mitigating risk pathways to prevent long distance spread of the pests, developing and implementing diagnostic tools and pest mitigation strategies, and communicating with the public to gain support for program strategies. These efforts help U.S. farmers export their products, prevent damage to specialty crop production (helping to ensure the availability of fresh fruits and vegetables), and protect natural resources, including forests and residential landscapes. Among the pests and diseases the program currently addresses are exotic fruit flies, a variety of citrus pests and diseases, the glassy-winged sharpshooter (GWSS), pale cyst nematode (PCN), the light brown apple moth (LBAM), and the European grapevine moth (EGVM). Overall, the program directly protects specialty crop production worth more than \$9.4 billion in 2017 [based on APHIS analysis using National Agricultural Statistics Service (NASS) data]. The program indirectly protects additional specialty crop production worth more than \$21 billion by preventing the spread of these damaging pests and diseases to new areas. Without the SCP program, U.S. trading partners might not accept a variety of U.S. fruits and vegetables. The value of trade in specialty crops that could potentially be disrupted was \$8.9 billion in FY 2017, according to an internal APHIS report using data from the Global Trade Atlas.

Grapes

The SCP program targets several devastating pests and diseases, including GWSS and EGVM, that could affect grape production and impact export markets. Thirteen States produce grapes commercially, with California accounting for more than 83 percent of the total acres in production in 2017 (NASS Noncitrus Fruits and Nuts 2017 Summary). In August 2016, APHIS declared the successful eradication of EGVM from California and lifted quarantine regulations from the remaining 446 square miles of Napa and Sonoma Counties. In FY 2018, APHIS, the California Department of Food and Agriculture (CDFA), and industry partners continued the second year of a three year post-eradication surveillance monitoring effort for EGVM in 38 participating counties. APHIS and cooperators found no infestations FY 2018. As a result, APHIS plans to conclude post-eradication surveillance efforts for EGVM at the end of FY 2019, if there are no additional infestations detected.

APHIS also continued the successful, cooperative GWSS program designed to suppress populations of this pest where established in grapes, citrus, and nursery stock. GWSS is a vector for Pierce's disease, which is lethal to grapevines, and the program's suppression and regulatory activities work to prevent the spread of the vector and disease across California. Higher pest populations associated with warmer temperatures and dry conditions in the State have challenged the GWSS program over the last several years. In FY 2018, the program continued to conduct surveys and other regulatory activities including inspections of nursery stock and bulk citrus for the pest in 49 California counties, and continued area-wide suppression activities in affected agricultural production areas of four California counties. With citrus growers' voluntary suppression treatments, the program covered more than 40,000 acres. Of the more than 34,000 shipments of nursery stock from infested areas, State inspectors did not reject any shipments due to GWSS. Together, the EGVM and GWSS programs directly protected 829,000 acres of grape production worth more than \$5.7 billion in the State of California in 2017 (NASS 2017 Crop Year Summary).

Citrus

Citrus fruits are high-value specialty crops and a nutritious food for consumers across the world. The United States is the fourth largest exporter of citrus by volume and value, according to the International Trade Centre. APHIS supports the citrus industry's continued ability to produce, harvest, process, and ship citrus fruits and nursery stock despite the presence of diseases such as citrus canker, citrus greening or Huanglongbing (HLB or citrus greening), and citrus black spot. In FY 2018, APHIS and cooperators in citrus-producing States surveyed more than 600,000 acres of citrus across the country, providing timely information about the presence of pests and diseases to growers and State government partners. This information allows growers to take necessary actions to manage their groves and allows APHIS and States to update quarantine boundaries and regulations to prevent the spread of serious citrus pests and diseases through the movement of regulated materials. Based on the results of surveys during FY 2018, APHIS adjusted quarantine boundaries in Florida, California, Louisiana, and Texas for HLB, Asian citrus psyllid (ACP), citrus black spot, or citrus canker. The areas quarantined for HLB in California expanded in FY 2018 due to

the detection of additional infected trees in Los Angeles and Orange Counties. In FY 2018, APHIS and cooperators conducted risk-based surveys in residential and commercial citrus areas in California to ensure they detect the disease quickly if it is present. In areas affected by citrus pests and diseases, APHIS' flexible regulatory protocols have minimized the impact of the quarantines on growers, who can move citrus out of quarantined areas to packinghouses if they follow mitigation procedures to prevent the disease or its insect vector from spreading. Nearly 16,000 businesses moved regulated host materials such as citrus fruit and nursery stock under compliance agreements with APHIS in FY 2018.

APHIS and cooperators continued extensive surveys that establish citrus black spot free production units and low prevalence areas for citrus canker in Florida for export packing to the European Union. APHIS also continued to support area-wide management of the ACP, an insect vector that spreads HLB, in Florida by providing survey data every three weeks to the growers participating in Citrus Health Management Areas (CHMAs). Citrus growers participating in CHMAs, which the Florida Department of Agriculture and Consumer Services manages, coordinate the applications of pesticides to suppress ACP populations in commercial citrus groves. Although the yield was predicted to increase for the first time in many years, Hurricane Irma significantly impacted Florida's citrus growing areas in September 2017. Due to the hurricane, growers faced losses of between 30 and 70 percent. The first crop report for the current harvest period has a substantial increase over last year with 79 million boxes estimated, which would exceed the totals for the past two years. APHIS is working closely with citrus nurseries that suffered hurricane damage and is planning extensive survey for citrus black spot in the coming months to detect any hurricane-assisted spread of this disease. APHIS also is working closely with growers to implement forthcoming changes to export requirements for citrus to the European Union.

APHIS also supports area-wide management efforts in Texas with the Texas Department of Agriculture. The Agency has been actively managing three citrus canker quarantines around Texas. APHIS provides assistance to the CDFA to aggressively respond to positive detections of HLB and implement an area-wide management approach for ACP population control. In FY 2018, APHIS continued a biological control program targeting ACP. This program, which employs a predatory wasp against ACP, augments current management methods, especially in residential areas in California, Arizona, Louisiana, and Texas, where use of chemical pesticides is undesirable. Biological control efforts in Texas have reduced the ACP population by more than 50 percent and by as much as 99 percent around California release sites. Projects funded by the HLB Multi-Agency Coordination Group produce and release 12 million biological control agents annually to help reduce ACP populations in residential and urban areas. APHIS also releases biological control agents in areas of Mexico (Baja California and Tamaulipas) adjacent to citrus production areas in California and Texas to suppress ACP populations and prevent them from spreading into the United States. APHIS works with citrus nurseries across the United States to ensure that nursery stock produced in areas quarantined for citrus diseases is free from the pests ensuring that clean plants are moving between the states and available for citrus producers and residential use. These citrus health activities directly protect citrus production on approximately 700,000 acres in the United States worth approximately \$3.3 billion for the 2017-2018 growing season (NASS 2017 Citrus Fruits Summary). Without APHIS' activities, citrus exports could be at risk each year. In 2017, the value of U.S. citrus exports totaled just over \$1 billion (Foreign Agricultural Service).

Tree Fruit and Nursery Stock

APHIS protects a wide variety of specialty crops (especially tree fruit and citrus) through exotic fruit fly exclusion and detection activities. One of the Agency's key strategies is maintaining a barrier against the spread of the Mediterranean fruit fly (Medfly) northward from Central America. Medfly is one of the most destructive agricultural pests in the world, attacking more than 300 cultivated and wild fruits and vegetables. APHIS and cooperators produced an average of 1.3 billion sterile Medflies per week in FY 2018 to maintain the barrier in Mexico, Guatemala, and Belize, and to release in high-risk areas of California and Florida on a preventive basis. In FY 2018, the international, cooperative program continued to face Medfly outbreaks in the free area. While the number of detections remained considerably higher than the target of no more than 50 detections, there was progress in that detections decreased from 485 in FY 2017 to 159 in FY 2018. In addition to continued high levels of Medfly outbreaks, the cooperative program faced currency fluctuations that impacted program resources in Guatemala. Based on the reduced purchasing power, the program adjusted its strategy and shifted certain areas from the Medfly-free area to low prevalence zones, which are less resource intensive because. As a result, the Medfly free area in Mexico, Guatemala, and Belize decreased from 149,110 square kilometers to 147,247 square kilometers. An APHIS technical working group will evaluate the current strategy and Medfly-free area to determine the best use of resources in FY 2019 to continue preventing the northward spread of Medfly into Mexico and closer to the United States.

Domestically, APHIS and State cooperators maintain the cooperative Preventive Release Program, which releases sterile fruit flies in high-risk areas to prevent any introduced Medflies or Mexican fruit flies (Mexflies) from reproducing and establishing a population in the United States. APHIS and cooperators also maintain a detection network of approximately 150,000 traps in California, Florida, Puerto Rico, Texas, and added 10,000 in New York, for a total of 160,000. When outbreaks occur, APHIS and cooperators implement immediate emergency response activities to eradicate them. In FY 2018, the program responded to seven new fruit fly outbreaks and completed eradication for four of these outbreaks during the fiscal year. The remaining three include a Medfly outbreak and an Oriental fruit fly outbreak in California and the first ever detection of the European cherry fruit fly in the United States. APHIS and California completed eradication of the Medfly outbreak in early October and expect to eradicate the Oriental fruit fly outbreak in winter 2019. The Federal quarantine for European cherry fruit fly covers approximately 91 square miles in Niagara County, New York, adjacent to affected areas in Canada. This temperate fruit species differs from the tropical species that APHIS more typically detects and eradicates in Florida or California by having only one life cycle per year, whereas other species have many lifecycles per year and can usually be eradicated within several months. APHIS declares an outbreak eradicated if there are no detections within three lifecycles. APHIS is continuing to evaluate the best methods for controlling this species, which could pose risks to cherry production in New York and to other cherry-producing States, if it spreads. APHIS produced and released an average of 123 million sterile Mexflies per week in Texas and northern Mexico in FY 2018 to support eradication and control programs in that region. APHIS eradicated all of the Mexfly outbreaks in Texas. There currently are no Mexican fruit fly quarantines in the Lower Rio Grande Valley of Texas. During the year, APHIS and cooperators managed quarantines covering 924 square miles across the United States. As the program completed operations, they released many of these areas from quarantine. At the end of FY 2018, 214 square miles remain under quarantine (related to Oriental fruit fly in California and European cherry fruit fly in New York).

The Dominican Republic experienced its first Medfly outbreak ever in 2015. With technical advice from APHIS, the Dominican Republic implemented a response program and declared eradication in July 2017. To reduce the risks of exotic fruit fly outbreaks in the Caribbean, APHIS and cooperating countries in the region increased surveillance for exotic fruit flies, especially Medfly. In FY 2018, 15 Caribbean countries participated in these efforts. APHIS will continue this effort in FY 2019, providing an early warning network for the occurrence of this damaging pest close to U.S. shores. APHIS' exotic fruit fly prevention and eradication activities protect producers of citrus, stone fruits, vegetables, and a variety of other specialty crops from damages associated with the pests, increased production costs, and export restrictions.

APHIS and cooperators also work to address plum pox virus (PPV) and light brown apple moth (LBAM) to protect producers of tree fruit and other specialty crops. APHIS is monitoring areas along the Niagara River that border an area in Canada with a PPV infestation. In September 2015, a single PPV-positive tree was detected in Ulster County, New York, which is more than 200 miles away from previously affected areas. Since this detection, APHIS and cooperators continue to conduct surveys in the Hudson Valley, Adirondack, and Niagara regions of New York but have not found any additional positive trees. APHIS completed a trace-back investigation on the single infected tree. While APHIS traced the tree back to the nursery where it was purchased and to the nursery's source, this information yielded no actionable information since at least a decade had passed since the plant was produced. APHIS has declared New York eradicated of PPV, but will continue surveys in and around the one-square mile area quarantine for several more years. APHIS continues to support yearly PPV detection surveys through Farm Bill Section 10007 to ensure that any PPV would be found if it appeared in other States.

In FY 2018, APHIS and the State of California continued to monitor for LBAM across California and found that the pest had not spread to any new counties in FY 2018. The quarantined area continues to include 22 counties in California. APHIS requires entities shipping regulated products out of the quarantined area to take measures to prevent the spread of LBAM to new areas. APHIS continues to evaluate pathways through which LBAM could spread and ensure that California products can move safely. In FY 2016, the Oregon Department of Agriculture identified a small, limited infestation in the Willamette Valley (Polk County). The State implemented an emergency eradication program and has not detected any additional infestations. In September 2018, Oregon Department of Agriculture confirmed one moth from a trap in Douglas County, about 130 miles from the previous infestation in Polk County. APHIS will work with Oregon State officials in FY 2019 to conduct further trapping to determine the extent of the find.

APHIS protects natural resources and nursery stock production and trade by limiting the spread of *Phytophthora ramorum* (*P. ramorum*) from quarantine areas and affected nurseries through regulatory strategies and adoption of mitigations and changes to cultural practices. *P. ramorum*, which causes sudden oak death, can be moved through host nursery stock and can affect a variety of forest trees. APHIS and State efforts have kept the disease from

impacting natural resources, outside of 15 counties in California and a small area in Curry County, Oregon, for more than 10 years. Over the last several years, APHIS has streamlined the *P. ramorum* regulatory framework for nurseries shipping host nursery stock interstate through two Federal Orders that relieved regulatory requirements on 2,800 low-risk nurseries. Since March 2014, the program is only regulating nurseries outside the quarantine areas that are positive within the preceding three years and that ship host nursery stock interstate. Because of the presence of *P. ramorum* in the surrounding environment, nurseries within the quarantine area that ship interstate must meet annual certification survey and sampling requirements to prevent the movement of potentially infested material. Any interstate shipping nurseries that test positive must participate in a compliance program using disinfestation protocols to eliminate the pathogen and implement required mitigations focused on critical control points to reduce the risk of reintroduction. Currently, 19 nurseries are participating in the program. Along with the streamlined regulatory program, APHIS and State cooperators have targeted inspection efforts toward the highest risk nurseries.

Through all of these activities, APHIS directly protects nursery stock production worth approximately \$1.5 billion (2012 Census of Agriculture) and tree fruit production worth approximately \$1.4 billion (APHIS internal analysis based on NASS data). By preventing pests and diseases like exotic fruit flies, PPV, and LBAM from spreading to new areas, the program indirectly protects more than \$10.4 billion in fruit and nursery stock production (APHIS internal analysis based on NASS data).

Potatoes

APHIS addresses two major potato pests, the pale cyst nematode (PCN) in Idaho and the golden nematode (GN) in New York. APHIS and cooperators have confined each to a relatively small area, and continued survey and regulatory efforts protect export markets for U.S. potatoes from 36 States. In FY 2018, APHIS tested 29,547 soil samples in Idaho for the PCN eradication effort and 5,996 soil samples from neighboring States for detection of potato cyst nematodes. PCN has not been detected outside of Idaho, and fumigations of infested fields in Idaho have reduced PCN populations by 99 percent since the pest was first detected in 2006. Based on survey results in FY 2018, APHIS released 1,113 acres of fields that had been regulated. The program detected no new infested fields, and did not add any new acres to the regulated area in FY 2018. The PCN program regulates a total of 8,220 acres, which includes 3,043 acres that are infested. In FY 2018, the program conducted eradication treatments on three infested fields, on a total of 430 acres. In the treated fields that no longer show PCN viability according to a greenhouse bioassay test, producers can plant potatoes with continued monitoring by APHIS and cooperators to ensure PCN is not present. During the greenhouse bioassay, the program tests the viability of nematodes found in the soil. If the nematodes are found to be non-viable (they fail to reproduce under favorable conditions in the presence of a host), the fields from which they came are eligible to return to potato production. These fields remain regulated but benefit from reduced sanitation requirements. One grower planted potatoes on alternating halves of his eligible field in FYs 2015, 2016, and 2017 and intensive surveys to check for viable PCN following harvests did not detect any viable PCN. The program is awaiting results from the FY 2018 planting season. If no viable nematodes are found after three years of full-field potato plantings, the field will be eligible for full deregulation. The program also is continuing to develop new mitigation tools for PCN that may serve as alternatives to methyl bromide fumigations or provide additional control following fumigation. These include the use of trap crops (planting a crop similar to potatoes that will stimulate nematodes to hatch but not allow them to reproduce) and fungus and biological control agents as control tools. APHIS and cooperators planted the trap crop on 71 acres in FY 2018, and will have treatment results in FY 2019.

In FY 2018, APHIS and New York cooperators continued an effective survey and regulatory program targeting GN with a focus on deregulation of all eligible land. In FY 2018, APHIS tested approximately 4,000 soil samples for the GN program in New York and 3,195 samples from neighboring States for potato cyst nematodes. The program continued conducting more than 500 regulatory treatments to ensure that equipment moving out of the affected area does not pose a risk for spreading the GN. In FY 2010, the program began a review of its regulatory strategy using the experience of the more recently established PCN program. Adopting strategies used in the Idaho program, the GN program is transitioning to focus on fields that are either infested or associated with infested fields rather than political boundaries such as townships. Over the last several years, these changes have allowed the program to reduce the quarantined area by 85 percent by removing a total of 1,102,131 acres from quarantine, allowing a number of farmers to grow their crops without continued golden nematode restrictions. The program completed the evaluations necessary to deregulate an additional 193,730 acres in FY 2017 and issued a Federal Order to deregulate the acreage on in FY 2018. The program uses both greenhouse and in-field bioassay for deregulation of formerly infested fields. In FY 2018, nine potato production fields continue to undergo eradication activities for GN. One of these fields planted GN-susceptible potatoes for six consecutive years with zero viable cysts detected, demonstrating for the first time that eradication of GN is possible. This field was included in the acres the program deregulated in FY 2018 and is now free to grow potatoes without Federal restriction. The program continues monitoring the

remaining fields undergoing eradication. The fields remain regulated, some because of proximity to infested fields, but benefit from relaxed sanitation requirements and enhanced crop options.

Together, these efforts to address PCN and GN directly protected potato production worth more than \$400 million in FY 2018 in and around impacted areas. These programs indirectly protect one million acres of potato production nationwide worth \$4.5 billion (NASS Crop Values 2017 Report). Total U.S. exports of potatoes were worth approximately \$239 million in 2017 (NASS Crop Values 2017 Report). Without these programs in place, trading partners might not accept U.S. potatoes.

Tree & Wood Pests

The Tree and Wood Pests (TWP) program protects forests, private working lands, and natural resources from the Asian longhorned beetle (ALB), emerald ash borer (EAB), gypsy moths, and most recently shot hole borers (SHB). Numerous native hardwood tree species that are common throughout the United States are vulnerable to these pests. APHIS cooperates with Federal, State, Tribal, and local agencies, organizations, and institutions to conduct survey, regulatory, control, and outreach activities in 48 States to manage and, in some cases, eradicate these pests. Conserving forests enhances the economic vitality of rural communities by supporting forest-related industries, recreation and tourism, and the overall livability of communities. The value of forest products and ecosystem services that APHIS protects per program dollar spent is approximately \$21,000. In addition, trees in residential areas lower cooling bills, filter pollutants from the air, decrease runoff, and improve residents' quality of life.

Asian longhorned beetle

The ALB threatens forest resources nationwide, as roughly 30 percent of U.S. trees are potential ALB hosts. The program's ALB eradication activities prevent multi-billion dollar losses to the maple syrup, timber, tree nursery, trade, and tourism industries. ALB was first detected in Brooklyn, New York, in August 1996, and was later found in other areas of New York, Illinois, New Jersey, Massachusetts, and Ohio. The program has successfully eradicated ALB from Chicago, Illinois; Islip, Staten Island, and Manhattan, New York; Jersey City, Middlesex County, and Union County, New Jersey; and Batavia and Stonelick Townships, as well as Monroe Township, Ohio. The program continues to conduct activities in regulated areas of New York, Ohio, and Massachusetts.

APHIS' eradication strategy for ALB includes surveys, regulatory inspections and quarantine restrictions, removal of infested and high-risk trees, and chemical treatment applications. APHIS conducts several cycles of surveys to determine the scope of infestation, establish a quarantine area, identify trees to remove or treat, determine if the pest has spread outside of the established quarantine area, and determine when to release an area from quarantine. A survey cycle is the time it takes to complete a survey of a given area, which can take several years depending on the size of the area, the density and type of trees in the area, and type of landscape or land use. Four years is the minimum amount of time between that last detection of the pest in a given area and the completed final survey cycle, when APHIS can declare eradication. APHIS provides ongoing support to evaluate new methods and protocols to combat regulated pests and tailors project responses to site-specific conditions, resulting in a more efficient program.

In FY 2018, the program concluded field work for its long term study of investigating the use of targeted seasonal treatments in Ohio. This study involves identifying 100 percent of the host trees within 20 meter diameter study plots. During the growing season, the program applies treatments to 50 percent of the randomly selected host trees. Evidence of ALB activity may be more apparent when only half of the trees are treated, as it will increase the likelihood that a small, latent beetle infestation will be discovered by subsequent surveys. After three consecutive years of seasonal treatment, the program will compare these host trees to control areas where they did not apply treatments to test the success. This approach also allows the program to fully utilize and investigate low-risk sites since they will not use them as untreated control areas. In FY 2016, the program developed a cost analysis of treating high risk host trees versus removing them for Ohio. In FY 2017, the cost analysis revealed there is no cost advantage to treatment of wood lot trees, but there may be cost advantages to treatments for a limited set of larger diameter landscape trees. In FY 2019, the Agency will analyze information from the treatment study, in concert with the cost analysis to guide development of future control strategies

In addition, APHIS began investigating the use of unmanned aerial systems (UASs) equipped with digital cameras as an additional survey tool in FY 2018. If successful, the Agency could use UASs to examine trees too risky to climb or in otherwise difficult to access areas, improving safety for program personnel and lowering the cost to survey these types of trees.

Emerald ash borer

Another forest pest of program concern is the EAB. In 2002, this pest was first detected in Michigan and has since been detected in 34 additional States and the District of Columbia. In FY 2018, APHIS and cooperators confirmed the first EAB infestations in Vermont, South Dakota, Maine and Rhode Island. Arkansas and Wisconsin (locations of previously found infestations) and Vermont implemented full state quarantines. In FY 2018, the program continued to use a risk-based model to determine the best places to focus survey and trapping efforts along a 100 mile leading edge of the quarantine. APHIS, along with Federal, state, and local agencies and stakeholder groups, continues to mitigate the human-assisted and natural spread of the pest and is continuing development of a biological control initiative designed to effectively manage EAB populations.

The program's biological control initiative provides a promising strategy, using several species of parasitic wasps for long-term EAB management. In FY 2018, the program continued conducting trial releases of parasitic wasps and released close to one million parasitic wasps in 25 States and the District of Columbia: Arkansas, Colorado, Connecticut, Delaware, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maryland, Massachusetts, Michigan, Minnesota, Missouri, New Hampshire, New Jersey, New York, North Carolina, Ohio, Pennsylvania, Tennessee, Virginia, West Virginia, and Wisconsin. APHIS and cooperators also assessed the impacts of the wasps on EAB populations and tree health at and near release sites. They have recovered the wasps in 17 states, demonstrating that the biological control agents are reproducing and becoming established in the areas released.

In FY 2018, the program continued the national survey, placing 12,000 traps in 16 states along the leading of the quarantine and providing additional traps to 25 states that conducted EAB surveys. Based on survey results, and the detection of infestations in unregulated areas of previously affected States, the program expanded the quarantine area to approximately 858,250 square miles. In FY 2018, APHIS maintained more than 1,000 compliance agreements with businesses that handle EAB host materials. With these agreements, the program regulates the treatment and movement of host materials from quarantined areas. EAB has spread to an extent beyond what a regulatory program can control. To more efficiently address EAB, APHIS is initiating proposed rulemaking to deregulate EAB and redirect resources for controlling the spread of this devastating pest to expanding the application of biological control for EAB and exploring ways to preserve ash resources. On September 19, 2018, APHIS published a proposed rule in the *Federal Register* to remove the EAB Domestic Quarantine Regulations. APHIS will review all comments before making a final determination.

Gypsy Moths

European Gypsy Moth (EGM) is a destructive pest for some of North America's most beautiful and popular deciduous trees, including maples, oaks, and elms. This pest is established in all or parts of 20 northeastern, mid-Atlantic, and Midwestern States, as well as the District of Columbia. APHIS and State cooperators conduct regulatory activities in the quarantine area to prevent the human-assisted spread of the pest and the establishment of gypsy moth populations in non-quarantine areas. These efforts include inspection, treatment, and certification of regulated articles for movement from quarantine to non-quarantine (non-infested) areas. The program issues compliance agreements and conducts public outreach to ensure that businesses and residents in infested areas comply with regulations to prevent long-distance spread of the pest. EGM also spreads naturally into areas bordering the quarantined zone. APHIS monitors the transition zone along the 1,200 mile-long border of the quarantine area to ensure that newly infested areas are added to the quarantined zone and regulated effectively. Working with the Forest Service and the EGM Slow-the-Spread Foundation, APHIS and cooperators have greatly slowed the spread of EGM and eradicated isolated populations, preventing this pest from becoming a larger issue. In FY 2018, APHIS and State cooperators continued to conduct EGM surveys to detect, delimit, and eradicate any isolated populations.

Asian gypsy moth (AGM) is an invasive threat to North American urban and natural forests because of its broad host range, demonstrated damage potential, and its ability to compromise an effective management system that has taken nearly 100 years of research to assemble. AGM poses a particular risk to western areas because of its ability to hitchhike on shipping vessels from Asia. APHIS supports the exclusion of AGM through negotiations and support of offshore ship inspection and certification. Due to an increase in AGM egg masses that were intercepted on ships in 2012, APHIS, the Department of Homeland Security's Customs and Border Protection, and the Canada Food Inspection Agency conducted increased outreach to the maritime shipping trade over the last several years.

To gain more cooperation from the National Plant Protection Organizations (NPPOs) of the countries where AGM is present, as well as the certifying agencies in each country, APHIS coordinated joint U.S./Canada technical trilateral meetings with Japan, China, Korea and Russia in FY 2018. These meetings have been ongoing for many years: Russia since 1992, Japan since 2007, Korea since 2010, and China since 2011. APHIS also is working with NPPOs of countries such as Chile and New Zealand that regulate AGM to harmonize the programs in an effort to send a

unified message to the stakeholder, specifically the maritime shipping industry. As a result, the rate of compliance to the AGM requirements—that vessels calling on U.S. ports after visiting Asian ports during the risk period present a valid certificate of inspections for AGM—is at an all-time high, exceeding 92 percent.

In FY 2014, APHIS and cooperators made a single detection of AGM in South Carolina. Although delimiting surveys in response to this detection discovered an additional single moth in FY 2015, the program detected no additional moths between FYs 2016 and 2018. In FY 2015, the program discovered one moth in Georgia. Surveys over the next three years found no additional moths during delimiting activities in Georgia. As a result, APHIS determined these areas were free of the pest at the end of FY 2018. In FY 2015, there were a total of 14 AGM moth detections in Oregon and Washington. In FY 2016, the program treated a total of 19,100 acres on eight different sites in those States using Farm Bill Section 10007 funds. The program detected no AGM during post-treatment delimiting surveys during the past three fiscal years. As a result, APHIS determined the 2016 treatments were successful and these areas were free of the pest at the end of FY 2018.

Shot Hole Borers

Various non-native shot hole borers have been detected in several states and hosts, including numerous woody trees in forests and urban landscapes, cultivated tea, and avocado. Shot hole borers also are called ambrosia beetles because they have a symbiotic relationship with ambrosia fungi, which they vector from tree to tree. The fungi disrupt the vascular system of impacted trees. In recent years the polyphagous (PSHB) and Kuroshio shot hole borers (KSHB) and diseases they cause have been devastating riparian habitats in southern California and urban areas in other parts of California. At California's request, APHIS and the U.S. Forest Service (USFS) helped establish a working group, led by USFS, with the goal of strategically addressing the shot hole borers in California.

In addition to the PSHB and KSHB, the pathogen *Ceratocystis*, which is vectored by a non-native shot hole borer (ambrosia beetle), causes Rapid Ohi'a Death (ROD). The host, 'ōhi'a lehua (*Metrosideros polymorpha*), is the most common native tree in Hawaii and has considerable cultural, biological, ecological, and economic significance. The causal agents of ROD grow in the sapwood of infected trees and kill the trees within weeks of the appearance of symptoms. A consortium of partners have developed a strategic plan for ROD, and an early detection and rapid response program is underway.

In FY 2018, APHIS supported six projects addressing management of shot hole borers in several states, including ROD in Hawaii.

Selected Examples of Recent Progress – Wildlife Services

Wildlife Damage Management

APHIS provides Federal leadership and expertise to resolve wildlife conflicts. Specifically, APHIS works to protect agriculture, human health and safety, property, and natural resources from disease and damage caused by wildlife. Cooperator participation and support is critical to the success of the Wildlife Damage Management (WDM) Program. APHIS' wildlife biologists coordinate activities in every State with Federal and State agencies, Tribes, local governments, private homeowners, farmers, ranchers, and other property owners to protect lands.

Agriculture

Feral swine are a harmful and destructive invasive species whose geographic range is rapidly expanding and populations are increasing across the nation. These invasive animals cause significant damage to property, agricultural animal health and crops, natural resources, public health and native ecosystems. The University of Georgia, using a broader data set than previously available, has more recently estimated feral swine damage nationwide to cost at least \$2 to \$2.5 billion annually, exceeding previous estimates of \$1.5 billion annually based on a more limited data set. To address this growing problem, APHIS initiated the National Feral Swine Damage Management Program in 2014 with the goal of reducing damage and risk to agriculture, natural resources, property, animal health, and human health and safety in the United States and its Territories. The Agency's strategy is to provide resources and expertise at a National level, while allowing flexibility to manage operational activities from a local or State perspective. Collaboration with other Federal, State, Tribal, and local entities, universities, and organizations, along with landowners and others experiencing damage, is essential for controlling the spread of feral swine and suppressing or, where possible, eliminating populations.

In FY 2018, APHIS conducted cooperative, cost-share operational programs on approximately 192 million acres in 39 States and 3 Territories, directly protecting 93 threatened and endangered species and habitats. Over the past 3 years of the program, APHIS and partners successfully eliminated feral swine from nine States – Idaho, Iowa, Maine, Maryland, Minnesota, New Jersey, New York, Washington and Wisconsin. We anticipate eliminating feral swine from additional States (e.g., Colorado, Nevada, New Mexico, Utah, Illinois, and Vermont) over the next

several years. After APHIS eliminates feral swine in a given State, the Agency continues to monitor these States for an additional 2 years to ensure feral swine populations do not reestablish. In collaboration with our partners, APHIS conducts disease surveillance and monitoring to protect the health of domestic swine, other livestock, and people by collecting 7,958 samples from feral swine during FY 2018 to assess disease risks. The Agency, along with university partners, is working to develop a feral swine toxicant and reproductive inhibitors to achieve permanent sterility in feral swine. Other activities include conducting several economic analyses to better assess feral swine damage to agriculture, livestock, and limited resource farmers; collecting and analyzing environmental DNA to detect feral swine presence through genetic markers in water; and maintaining a National Feral Swine Genetic Archive to assess the movement of feral swine and determine source populations.

Livestock losses attributed to predators cost producers more than \$137 million annually, according to the most recent surveys by National Agriculture Statistics Service. APHIS prevents and reduces livestock predation through technical assistance (education and outreach) to producers, and operational management programs. In FY 2018, APHIS provided assistance to more than 12,000 livestock producers. APHIS and cooperators fund livestock protection activities on a cost-share basis.

APHIS plays a major role in wolf and grizzly bear damage management in the United States. APHIS personnel work with State wildlife agencies, the U.S. Fish and Wildlife Service, and tribes to conduct wolf damage management programs, and provide additional services to capture and mark wolves and grizzly bears for research and population monitoring purposes. Upon request, APHIS may remove depredating wolves to resolve conflicts. In FY 2018, APHIS responded to 580 reports of wolf depredation by providing a combination of direct control and technical assistance. This included more than 841 livestock animals killed in addition to other animals killed, injured, harassed, and threatened by wolves. To avoid or reduce predation, APHIS provides technical assistance to producers on preventative measures to supplement direct control activities, which producers then implement themselves. In FY 2018, APHIS conducted 436 predator management workshops. APHIS estimates that these efforts help protect more than 15.8 million head of cattle, sheep, and goats valued at more than \$2.5 billion.

Black vulture populations have increased in both abundance and range over the past 30 years. The Migratory Bird Treaty Act, enforced by the U.S. Fish and Wildlife Service (FWS), protects black vultures, which prey on livestock. Under the Migratory Bird Act, the public cannot kill, destroy, or remove birds, their nests, or their eggs without a Migratory Bird Depredation Permit from FWS. APHIS works collaboratively with FWS recommending short and long-term options to provide producers with relief from damage. If removing vultures is necessary, APHIS assists producers in obtaining a depredation permit from FWS. With cooperator funding, APHIS conducted direct control in 23 States in FY 2018, removing approximately 8,216 black vultures and dispersing approximately 62,425 black vultures, in addition to providing technical assistance to guide private management efforts.

Fish-eating birds, especially double-crested cormorants, can have major impacts on the U.S. aquaculture industry. According to the National Marine Fisheries Service, annual fish production in the United States is valued at \$1.4 billion, and APHIS' National Wildlife Research Center estimates that the aquaculture industry incurs approximately \$25 million in costs associated with bird damage and damage prevention. APHIS provides operational and technical assistance to aquaculture producers, specifically on roost management of double-crested cormorant, harassment of fish-eating birds on catfish facilities, and helping farmers acquire depredation permits that the FWS requires under the Migratory Bird Treaty Act. Work is concentrated at lower Mississippi valley and southeastern aquaculture facilities in the fall and winter. During this timeframe in FY 2018, APHIS removed more than 1,350 and dispersed more than 240,000 double-crested cormorants from 79 roosts in three States. In 2017, APHIS helped FWS produce an Environmental Assessment, which allowed FWS to resume issuing depredation permits to individual aquaculture producers in FY 2018.

The National Wildlife Disease Program provided technical assistance, and conducted surveillance and management for more than 40 wildlife diseases, pathogens, and syndromes, and responded to 28 emergency events including virulent Newcastle Disease, oil spills, and hurricanes. Additionally, the program participated in a foot and mouth disease exercise, and implemented the National Interagency Wild Bird Avian Influenza Early Detection System. International activities included collaboration with the Chinese Academy of Science on wildlife disease issues; with Mississippi State University on emergence of avian influenzas in China, with U.S. Geological Survey's National Wildlife Health Center, Korea, and Japan on an Asian-Pacific One Health Program; and conducted surveillance for Japanese encephalitis virus in Guam.

Human Health and Safety

Rabies is one of the oldest known viral diseases, yet it remains a significant wildlife-management and public-health challenge. APHIS is the lead Federal agency to prevent the further spread of wildlife rabies, with the goal of

eliminating rabies in carnivores in the United States using oral rabies vaccination (ORV). In FY 2018, APHIS and cooperators distributed nearly 10 million ORV baits, including 9 million in the eastern United States, to combat raccoon rabies in 16 States and 1 million in Texas to prevent the reemergence of rabies in coyotes and gray foxes along the border with Mexico. This is a continuation of the strategic distribution of more than 190 million baits since the program began in 1995. These programs have eliminated canine rabies in coyotes, resulting in the United States being declared canine rabies free in 2007; the near elimination of gray fox rabies from Texas; and containment of raccoon rabies in the eastern United States. An internal economic analysis projected a \$1.1 billion economic impact over 22 years in the absence of the APHIS-led ORV program.

APHIS works with the Centers for Disease Control and Prevention and the Wistar Institute, an infectious disease and vaccine research institute, to streamline the use of a rapid rabies diagnostic field procedure to diagnose the disease within an hour. Since 2005, APHIS has conducted 94,444 rabies tests using this procedure, documenting 1,841 rabies cases that, in turn, facilitated science-based wildlife rabies management decisions. APHIS also coordinates with international partners through the North American Rabies Management Plan – which includes the United States, Canada, Mexico and the Navajo Nation – on surveillance activities, control programs, vaccine development, and field trials. In FY 2018, APHIS collected more than 3,200 raccoon blood and 2,200 tooth samples in 14 states to estimate rabies antibody levels and bait uptake in target species in or near ORV zones. An improved vaccine-bait combination holds promise for enhanced raccoon rabies control in the United States. Since 2011, APHIS has conducted 11 field trials in five states necessary to register the oral rabies vaccine (ONRAB®) targeting raccoon, skunks, foxes and coyotes. These studies have all been part of an effort to evaluate scientific evidence for effectiveness in wildlife populations and has been shown to have about twice the bait uptake by raccoons as the current licensed vaccine. In FY 2017, APHIS submitted efficacy data to the Center for Veterinary Biologics in support of the product's registration, which remained under review at the end of FY 2018.

Increased air traffic, faster and quieter aircraft, increased populations of federally protected species of birds, and increased populations of other wildlife all impact the safety of aircrafts, particularly in rural communities. Since 1988, bird and other wildlife strikes have destroyed more than 262 civilian and military aircraft and killed 282 people globally. With funding that Federal, State and local cooperators provide, APHIS works to reduce wildlife impacts on aircraft and human safety. APHIS estimates the value of damage prevented from wildlife impacts is \$99.4 million. In FY 2018, APHIS mitigated wildlife hazards by assisted nearly 900 civil and military airports worldwide which included 125 Department of Defense in domestic and international settings. Of those airports, APHIS biologists estimated that technical or direct management assistance resulted in a reduction, suppression or prevention of wildlife hazards at approximately 70 percent of those airports.

Property

Beaver damage in the southeastern United States has exceeded \$3 billion over the last 40 years. To address and prevent costly beaver damage, APHIS provides assistance by removing beaver dams that clog waterways and flood roads and timber sources. On average, for every dollar spent in managing beaver damage, approximately \$9 of resources are saved. With cooperator funding, APHIS conducted beaver damage management activities in 37 States in FY 2018.

Natural Resources

Non-native, invasive animals can devastate ecosystems. APHIS focuses on eliminating damage from brown treesnakes (BTS), nutria, and other invasive species. In Guam, BTS have eliminated most species of native birds, lizards, and bats, and continue to cause power outages leading to economic losses and public safety problems. In FY 2018, with funding from other Federal departments and the Guam Department of Agriculture contributed, APHIS continued the multi-agency partnership to prevent BTS movement from Guam to other Pacific Islands, Hawaii, and the continental United States. It is through this partnership that the Agency intercepted 17,928 BTS in Guam during FY 2018.

Nutria damages wetlands, agricultural crops, and structural foundations such as dikes and roads. This South American rodent has destroyed tens of thousands of acres of marshlands critical to the health of the Chesapeake Bay. APHIS is leading the first large-scale North American effort to eradicate a mainland nutria population in the Chesapeake Bay through agreements with the U.S. Fish and Wildlife Service and other cooperators. Since 2002, in cooperation with Federal and State agencies and private landowners, APHIS has removed nutria from more than 250,000 acres of coastal marshland. APHIS rotates the monitoring of six watersheds, covering 450,000 acres, annually to prevent the re-infestation of the area. In FY 2018, APHIS monitored approximately 190,000 acres in three watershed areas and will continue monitoring and removing any remaining nutria. As a result of these efforts, marsh grasses and native muskrat populations are quickly recovering.

APHIS partners with various Federal and State resource agencies, private organizations, and community groups to conduct damage management that benefit protected bird species by preventing predation from other birds and mammals to nests, eggs, and juveniles. APHIS has estimated damages or damage threats to birds, including threatened and endangered species, to be more than \$70 million annually. In FY 2018, APHIS conducted more than 1,265 conservation actions that benefitted protected species in 37 States, Guam, Virgin Islands, and Cuba (Guantanamo Bay).

Wildlife Services Methods Development

The Wildlife Services Methods Development (WSMD) Program develops effective and socially responsible methods and information to manage conflicts between people and wildlife to protect agriculture, natural resources, and human health and safety. This program provides research in support of the Agency's animal health programs such as feral swine, invasive species, wildlife disease, and population and reproduction control, among others. APHIS' National Wildlife Research Center (NWRC) provides the only dedicated Federal leadership in developing methods to manage wildlife-related damage problems. Scientists work on a variety of wildlife damage management problems including discovery, development, and technology transfer of products and management methods. The majority of NWRC studies involve partnerships with Federal and State agencies, non-governmental organizations, universities, tribal governments, and private sector businesses. In FY 2018, NWRC initiated 151 new studies and published 175 scientific papers in 85 professional scientific journals. NWRC scientists also made 248 presentations to scientific and stakeholder audiences.

Agriculture

The WSMD program develops methods to safeguard livestock from predators, manage invasive species, and minimize the impact of wildlife diseases. The following are examples of efforts to protect American agriculture, which includes protecting resources related to farming and ranching such as livestock, crops, animal products and other associated industries.

APHIS' National Feral Swine Damage Management Program aims to reduce feral swine damage to property, agricultural animal health and crops, natural resources, public health and native ecosystems. The Agency is moving to have a completed toxicant and delivery system available for use in 2021, which will serve as a critical component in the long-term success of reducing feral swine populations and the damage they cause. In FY 2018, NWRC completed an Environmental Protection Act approved study to test a potential new toxicant and delivery system for feral swine. Results showed the toxicant was effective (70 percent) and that the bait box delivery system was also successful at not impacting non-target species. Refinements to the bait formulation are ongoing. Genetic techniques have been used to establish indirect methods to determine feral swine diets, whether they are present in a given area, and also the origin of individuals or groups. Scientists have used quantitative methods to develop models for predicting the spread of feral swine in the continental U.S. and estimate the efficacy of different approaches to manage feral swine, which include both lethal and non-lethal (e.g. fertility control) methods. These valuable tools and information will assist in developing risk assessments and enable the Agency to make more informed management decisions regarding operational control programs for feral swine.

Blackbirds are an important economic pest to sunflower growers in the Prairie Pothole region of North Dakota, where they cause extensive crop damage and lower yields at harvest. Although anthraquinone-based repellants have been shown to be effective for blackbirds in laboratory trials, the challenge still exists to develop an effective application method for maturing sunflowers in the field. In FY 2018, NWRC studies showed that repellent application, even at higher concentrations than recommended on the label, using a drop nozzle system does not provide sufficient coverage on the achenes to deter consumption by blackbirds. In efforts to develop methods to haze birds from crops, NWRC tested different unmanned aerial vehicles (UAV) platforms in FY 2018 and found that fixed wing platforms are more effective than quadcopters. NWRC also have tested UAVs as a tool for crop damage surveillance and to determine the distribution of birds in crops, and developed an algorithm to identify blackbirds from UAV images that will facilitate automated surveillance.

Many human-wildlife conflicts are related to livestock depredation by carnivores, which can represent an important economic loss to affected stakeholders. Coyotes are the top predator of livestock in the contiguous United States. NWRC is investigating both predator management tools to prevent losses and facilitate coexistence. Producers often employ non-lethal tools to prevent livestock depredation, however, few of these tools have been experimentally tested and their promotion without science-based evidence of effectiveness can reduce trust from livestock producers and conservationists. The fladry method of using rope mounted along the top of a fence with strips of fabric that will flap in a breeze has been used as an effective non-lethal tool for managing wolves. In FY 2018, NWRC modified the original design of fladry to demonstrate how it can be an effective method for coyote control.

This evidence-based approach has encouraged stakeholder participation to help develop improved designs. In regard to lethal control, two toxicants (para-aminopropiophenone and sodium nitrite) have shown potential as being effective and humane for use in coyotes.

Identifying risk factors impacting aquaculture production is critical in formulating efficient, effective, and targeted management strategies and methods. In recent years, the number of acres producers use for catfish ponds has decreased. In FY 2018, NWRC research showed that in response to these changes, birds that eat farmed fish, in particular white pelicans, have adapted to these changes and are becoming more concentrated in the existing ponds. Double-crested cormorants continue to be a major economic burden to the aquaculture industry and NWRC has continued its efforts to better understand the roles that fish-eating birds have on production and disease transmission. In FY 2018, NWRC developed a method to estimate the age of cormorants using a stable biomarker. Use of this tool and others NWRC developed will assist managers in assessing the impacts and sustainability of control efforts of fish-eating bird species while complying with their protected status under the Migratory Bird Treaty Act.

Natural Resources

The NWRC is investigating genetic-based solutions to develop new tools that will protect natural resources from the impacts of invasive species. Where appropriate, the aim is for these tools to have the following characteristics: effective, low environmental burden, humane, socially acceptable, cost effective and easy to use, provide a good return on investment, production and commercial scalability, and regulatory clarity.

In 2017, NWRC researchers joined a consortium called Genetic Biocontrol of Invasive Rodents (GBIRD) that includes national and international partners with the aim of utilizing gene drive to manage invasive rodents. Gene drives allow biased inheritance of a particular gene to make it a dominant feature in a population. The vision of GBIRD is to utilize gene drive to create a self-limiting modified mouse that biases future generations to be all males, and thus cause eradication by attrition. In FY 2018, APHIS completed the necessary steps to demonstrate that the Agency's research facility meets the necessary security protocols. For example, NWRC constructed an arena within a simulated natural environment room and demonstrated its ability to contain free-ranging wild-caught mice. In addition, NWRC placed radio collars on wild-caught mice and released them outside the facility to determine where and how far a mouse might go if it were to escape. Tests showed that mice stayed within 100 meters of NWRC buildings and that there is about a 1.5 day window to recapture a mouse if it were to escape. These initial steps are essential in the research process and will allow future research efforts to continue. Additionally, in FY 2018, NWRC researchers collected mice from multiple islands and began determining the genetic sequences of the mice. NWRC has, and will continue to, perform testing of any genetically engineered strain(s) of mice that are developed. To date, the NWRC has completed this research with funding from the Department of Defense Safe Genes Program.

Human Health and Safety

Pathogenic and anti-microbial resistant (AMR) bacteria have become an increasing problem in both agricultural and human health facilities. In FY 2018, NWRC research determined the prevalence of AMR bacteria in raccoons and deer mice in feedlots, and determined that raccoons have the potential to be a carrier of AMR bacteria to and from feedlots. NWRC research showed that AMR bacteria prevalence was higher downstream from water treatment plants, suggesting that human sources of AMR pathogens are important.

Contamination of leafy green crops with pathogens can lead to human illness and expensive product recalls. In FY 2018, NWRC research showed that low levels of wildlife incursions into these crops do not pose a high risk of contamination. However, where contamination may occur, NWRC determined that the induction of certain viruses using a specific compound has potential to effectively control bacterial foodborne pathogens on fresh produce.

Partnerships and Technology Transfer

The Federal Technology Transfer Act of 1986 allows Federal laboratories and industry to form partnerships that enhance the development of new technologies and move them to the marketplace to meet public and consumer needs. APHIS regularly partners with Federal and State entities, private companies, international groups, and non-governmental organizations to encourage the development and licensing of new wildlife damage management products to manage wildlife conflicts. Most NWRC technology development activity and partnerships involve partnerships with universities and small businesses. Technologies pursued include development of devices, baits, formulations and vaccines. In FY 2018, NWRC furthered its partnership efforts to make sure its research and development activity had a path for commercial development and operational management with the following new activity: 8 Confidentiality Agreements, 7 Material Transfer Agreements, 14 Material Transfer Research Agreements, 3 Data Sharing Agreements, 3 Memoranda of Understanding, 1 Cooperative Research and Development Agreements, 4 Invention Disclosures, and 1 patent issued.

APHIS, along with Arkion Life Sciences, received the 2018 Federal Laboratory Consortium Mid-Continental Region Partnership Award for "Birds Don't Always Like What They See" through the development of anthraquinone (AQ)-based repellents for birds. This award recognizes federal government and private partnerships. The NWRC-Arkion collaboration has led to a suite of co-owned patents the U.S. Patent and Trade Office, as well as foreign governments, issued or has under review. Recent NWRC-Arkion research has shown that AQ can also cause avoidance behaviors in birds through visual cues related to the compound's absorption of the ultraviolet (UV) spectrum. As a consequence, repellent products and application strategies have been designed that 'trick' birds into overlooking food items or deter them from sitting or perching on items. NWRC research has also shown that if birds first come into contact with AQ, other less expensive compounds with similar UV spectral characteristics can be substituted for AQ, or subsequent applications of AQ can be made at lower application rates. The results of the NWRC-Arkion partnership not only impact wildlife conservation and crop and disease protection in the United States, but also food production in lesser developed countries.

Promoting a professional culture of excellence in wildlife damage management is the goal of a partnership between APHIS and Mississippi State University (MSU). The Wildlife Services National Training Academy (NTA), housed at MSU, is dedicated to enhancing safety, communication, and technical and administrative skills for all APHIS Wildlife Services personnel. The NTA academy provides standardized training for the mitigation of human-wildlife conflicts and safety related risks, and serves as a central repository for coordinated training throughout the United States. In FY 2018, the NTA provided or facilitated training for more than 580 APHIS employees from 47 states and two U.S. territories. The trainings covered 31 individual programs, primarily covering topics regarding safety and operations such as firearms use and safety, animal care and handling, utility terrain vehicles, watercraft, explosives, cannon-netting for birds, chemical immobilization and immobilization use, geographic information systems, unmanned aircraft systems and zoonotic diseases. The NTA also provided non-technical training in FY 2018 that included risk communication and conflict resolution.

Selected Examples of Recent Progress – Regulatory Enforcement:

Animal and Plant Health Regulatory Enforcement

Animal and Plant Health Regulatory Enforcement (APHRE) provides investigative, enforcement, and regulatory support services to the Agency's four regulatory programs and Agricultural Quarantine Inspection (AQI) activities carried out through the Department of Homeland Security, Customs and Border Protection. APHRE investigates alleged violations of Federal laws under its jurisdiction and pursues appropriate enforcement actions through administrative, civil, or criminal procedures.

In FY 2018, APHRE initiated 1,237 new cases, issued 274 official warnings, issued 471 pre-litigation settlements resulting in the collection of \$777,333 in stipulated penalties, and obtained administrative orders assessing \$321,699 in civil penalties. The Agency considers a case complete after it issues an official warning or voluntary settlement to which the recipient agrees, finds there is insufficient evidence to support enforcement action, or refers a case to the USDA Office of the General Counsel. Highlights from APHIS are described below.

To support animal health, APHRE initiated 166 cases, issued 104 official warnings, issued 33 pre-litigation settlements resulting in the collection of \$96,895 in stipulated penalties from persons for violations of laws aimed at protecting animal health and American agriculture. In one case, APHIS negotiated a pre-litigation settlement in the amount of \$39,062 for an alleged violation of the Agricultural Bioterrorism Protection Act relating to the release and infection of non-human primates with a select agent. In another case, APHIS negotiated a pre-litigation settlement in the amount of \$7,500 for an alleged violation of the Animal Health Protection Act and animal disease traceability regulations relating to the interstate movement of beef and dairy cattle without interstate certificates of veterinary inspection.

To support plant health, APHRE initiated 43 cases, issued 15 official warnings, and negotiated 24 pre-litigation settlement agreements resulting in the collection of \$57,444 in stipulated penalties. In one case, APHIS negotiated a pre-litigation settlement agreement in the amount of \$10,000 for alleged violations of the Plant Protection Act. In that case, during multiple inspections over the course of two months, APHIS employees discovered Uruguayan lemons, Peruvian Hass avocados and clementines at four warehouses in Puerto Rico that were not allowed to enter to the continental United States due to potential plant pest risks. In another case, APHIS negotiated a pre-litigation settlement in the amount of \$3,125. In that case, APHIS determined that over the course of five months, a company moved 1,061 regulated plant pests (multiple species of moth and butterfly in different stages of development) interstate from Arizona in violation of the Plant Protection Act.

To support AQI activities, APHRE initiated 1,008 cases, issued 111 official warnings, and issued 406 pre-litigation settlement agreements resulting in the collection of \$590,344 in stipulated penalties. In one case, APHIS negotiated a pre-litigation settlement agreement in the amount of \$12,000 when it determined that, on three separate occasions, a company failed to provide the Plant Protection and Quarantine office with required notification of vessel arrival into port. APHIS also issued multiple pre-litigation settlements involving the alleged improper safeguarding of regulated garbage, including settlements with civil penalties totaling \$284,000; alleged agriculture hold violations with civil penalties totaling \$180,249; and alleged passenger baggage violations with civil penalties totaling \$86,125.

To support animal welfare, APHRE initiated 19 cases for alleged violations of the Animal Welfare Act (AWA), issued 44 official warnings, issued 8 pre-litigation settlements resulting in the collection of \$32,650 in stipulated penalties, and obtained 14 administrative orders, assessing \$265,499 in civil penalties. In one case, APHIS entered into a Consent Decision relating to multiple willful violations of the AWA, resulting in a \$99,999 civil penalty. In another case, APHIS obtained an administrative order against an individual relating to alleged AWA violations occurring from March 2008 through January 2012, assessing a \$30,000 civil penalty. APHIS also negotiated several pre-litigation settlement agreements, including one involving a research facility that agreed to the assessment of a \$10,000 civil penalty to resolve multiple alleged AWA violations. Copies of enforcement records (such as initial decision and orders, default decisions, and consent decisions) are available on the USDA's Office of Administrative Law Judge's website: <https://oalj.oha.usda.gov/>.

To support horse protection, APHRE worked with the Office of the General Counsel and obtained 47 administrative orders assessing \$56,200 in civil penalties, and disqualifying 44 individuals from participating in activities regulated under the Horse Protection Act (HPA). In one case, APHIS entered into a consent decision relating to entry of a single horse on nine occasions, resulting in an 18 month disqualification to one respondent, an 8 month disqualification to the other respondent, and a joint civil penalty of \$19,800 to both respondents. APHIS experienced a decline in enforcement of both the HPA and the AWA. Several factors contributed to the change, including a constitutional challenge to the appointment of administrative law judges (ALJs), causing a continuance of nearly all AWA and HPA administrative proceedings. In June 2018, the U.S. Supreme Court issued its ruling on the appointment of ALJs; since then, hearings have been rescheduled, and APHIS has filed three new administrative complaints under the AWA.

To support biotechnology, APHIS initiated one case. As part of an internal collaborative effort to further the protection and safeguarding of plant health throughout the United States, the APHRE program worked closely with the Biotechnology Regulatory Services (BRS) program relating to a pattern of negligent field operation practices by a subject and involving the possible spread of genetically engineered corn. APHRE determined that the incidents were sufficiently resolved through several notices of findings, notices of non-compliance, and warning letters. APHIS also worked proactively with BRS to revise language used in regulatory correspondence.

Biotechnology Regulatory Services

APHIS balances a regulatory system that safeguards agriculture while fostering innovative research and development in the field of biotechnology. Under the authority of the Plant Protection Act (PPA), APHIS safeguards agriculture by overseeing certain genetically engineered (GE) organisms that might pose risks as plant pests. APHIS' biotechnology regulations implement the Plant Pest provision of the PPA and, under these regulations, the Agency may put specific requirements on field testing, importation, and interstate movement of regulated GE organisms to protect American agriculture and other plants from the risk of damage from potential plant pests until such time as APHIS determines they are unlikely to pose a plant pest risk.

Authorizations

Depending on the characteristics of the GE organism, a developer files an application in the form of either a permit or a notification, referred to as an authorization. A permit is more restrictive than a notification, and is generally issued for GE organisms that APHIS is less familiar with and thus may pose a greater plant pest risk. A notification is a streamlined authorization for GE organisms that APHIS has familiarity with and thus less likely to pose plant pest risks. In FY 2018, APHIS authorized more than 1,500 permits and notifications in 41 States (plus Puerto Rico) for 130 different species of organisms.

Risk Assessment and Petitions

When biotechnology developers can provide scientific information that demonstrates their GE organism is not a risk as a plant pest, they can request, or petition, APHIS to remove a GE organism from regulation. Before APHIS makes a regulatory decision, it conducts thorough scientific reviews and gathers data to determine if the new GE organism poses a risk to plant health. APHIS' reviews of the GE organism include analyzing both current, publicly

available scientific information and the technical data provided by the applicant. When considering this request, APHIS completes a scientific plant pest risk assessment, as well as an environmental review in compliance with the National Environmental Policy Act. If APHIS determines a GE organism does not pose a plant pest risk, the Agency makes a determination of nonregulated status (deregulation), and biotechnology developers can plant and move the organism without APHIS' oversight.

In FY 2018, APHIS reviewed and deregulated two petitions one GE canola and one GE cotton, bringing the cumulative total of APHIS deregulations to 129. In recent years, APHIS has identified and implemented solutions to improve the timeliness and predictability of the petition process while maintaining its high standard of scientific rigor and decision-making, allowing APHIS to complete the FY 2018 petitions in an average of 351 days (without requiring an Environmental Impact Statement to be completed). APHIS continues to provide the public with opportunities to review and comment on both the petition request and the scientific assessments of the GE organisms in the *Federal Register*.

Since 2011, APHIS' "Am I Regulated?" (AIR) process allows potentially regulated entities to ask the Agency if an organism is a regulated article by providing specific information including scientific data, the technology used, and other information about the GE organism. APHIS evaluates the description of the product and informs the developer if the Agency regulates or does not regulate the GE organism under its current biotechnology regulations. APHIS publishes their responses to AIR letters on its website. In FY 2018, APHIS responded to 14 AIR inquiries; since inception, the Agency has responded to more than 60 inquiries thus, facilitating movement of new products to farmers fields.

Compliance and Inspections

APHIS ensures developers, growers, and others take the important steps to prevent unauthorized releases of regulated GE organisms. The Agency requires developers to comply with notification performance standards or permit requirements to help ensure the GE organisms are confined and do not persist in the environment. To ensure that GE organisms meet standards outlined in the permit or notification, APHIS inspects fields, equipment, and other associated facilities. In FY 2018, APHIS and the States (authorized by APHIS) conducted more than 700 site inspections, 43 of which were unannounced inspections. Approximately 92 percent of those inspected were in compliance with APHIS biotechnology regulations.

Following recommendations from the USDA's Office of Inspector General's office, APHIS has taken steps in recent years to strengthen its oversight of regulated GE field trials. In FY 2018, APHIS continued to develop and implement an improved risk-based inspection selection process and enhanced compliance oversight of regulated GE field trials. As part of this effort, APHIS incorporated additional control measures into inspection and oversight activities based on analysis of information from monitoring reports submitted by regulated entities. The Agency also enhanced effectiveness of oversight while leveraging technology through virtual monitoring and evaluations of field trials, completing 27 virtual inspections. These virtual inspections focused on the review of post-harvest recordkeeping and oversight practices as well as field trials with compliance issues. APHIS also updated certain standard requirements for GE field trials authorized under permits, increasing consistency and improving clarity of requirements for regulated entities and increasing enforceability of requirements for the Agency.

Regulatory Changes

Advances in science and technology have altered the biotechnology landscape, enabling the development of products not envisioned when regulations were first established. APHIS is working to update the Agency's biotechnology regulations to better ensure that regulatory oversight is commensurate with plant pest risks. APHIS published a proposed rule in January 2017 and received more than 200 comments. After reviewing the comments received, USDA determined that additional stakeholder engagement would be appropriate to explore alternative policy approaches and withdrew the proposed rule. In FY 2018, USDA conducted extensive stakeholder outreach to engage in an open and robust policy dialog to more effectively address the issues raised in public comment. The Agency is currently developing a proposed regulatory framework and proposed revisions to the regulation.

Partnerships

On January 4, 2017, the Office of Science and Technology Policy (OSTP), in coordination with the USDA, the Environmental Protection Agency, and the Food and Drug Administration released two documents supporting modernizing the regulatory system for biotechnology products: [Update to the Coordinated Framework](#); and a [National Strategy for Modernizing the Regulatory System for Biotechnology Products](#) (Strategy). Background on this effort and the documents are available at https://www.aphis.usda.gov/aphis/ourfocus/biotechnology/stakeholder-meetings/cf_meetings. The agencies also commissioned a National Academies of Sciences, Engineering, and Medicine (NASEM) report, titled "Preparing for Future Products of Biotechnology." Released in March 2017, the

report describes the new types of biotechnology products likely to emerge over the next 5-10 years and assesses whether future products could pose different types of risks relative to existing products. Since the release of these documents, OSTP's Biotechnology Working Group (BWG) has met on a bi-weekly basis to implement objectives outlined in the Strategy document and recommendations from the NASEM study. Among these have been the development and recent release of a Beta version of a Horizon Scanning System to identify new and emerging products of biotechnology and the development of a Unified Portal that serves as a single point of entry for the regulated community and the public to obtain and access information on the Coordinated Framework and the U.S. biotechnology regulatory system. The BWG is targeting early FY 2019 for release of the web portal.

APHIS also works with international partners to enhance the coordination of regulatory approaches for the safe use of GE organisms, and provides capacity building assistance to developing countries for the regulation of GE organisms. These activities promote U.S. exports of GE products by ensuring that trading partners understand and accept the U.S. system for regulating GE organisms. For example, APHIS worked closely with Mexico and Canada on technical and regulatory biotechnology issues in bilateral, regional, and multi-lateral international venues in FY 2018. APHIS also meets with foreign visitors who are interested in understanding how the United States regulates the safe use of biotechnology-derived organisms. In FY 2018, APHIS gave briefings to 80 foreign visitors from 8 countries. In addition, the Agency serves as the U.S. government lead and the Chair of the Working Group on Harmonisation of Regulatory Oversight in Biotechnology in the Organization for Economic Co-operation and Development. The Working Group works to promote international harmonization in environmental risk/safety assessment and regulation of organisms produced through modern biotechnology. APHIS also coordinates with an interagency working group on issues related to the Cartagena Protocol on Biosafety, aimed at enhancing coordination of regulatory approaches and providing capacity building assistance for the regulation of GE organisms. This year, the organizers of the November 2018 Conference of the Parties to the Convention on Biological Diversity are considering documents related to synthetic biology that APHIS worked on with the State Department and interagency partners. This effort supports potential innovations in research, education, and commercial developments in diverse areas from medicine to agriculture. APHIS also participated in a two-week Agricultural Biotechnology and Biosafety Short Course at Michigan State University that allowed students from developing countries in Sub-Saharan Africa and Southeast Asia to learn about biotechnology research, policies and regulations, and trade issues.

Selected Examples of Recent Progress – Emergency Management:

Emergency Preparedness & Response

The Emergency Preparedness and Response (EPR) program improves APHIS' capability to prevent, prepare for, respond to, and recover from animal health emergencies. It develops strategies, policies, and procedures for incident management and response coordination that meet national and international standards. The EPR's program goal is to respond to an animal health event within 24 hours from the time APHIS decides that it is appropriate to be involved in the response effort. The program participates in joint Federal, State, and local animal health and all-hazards test exercises to improve response capabilities, and performs reviews afterwards. In addition, this program works with major commodity groups to ensure the continuous movement of livestock products during animal health emergencies. Effective preparation for and response to animal health events requires advance and continuous planning, followed by training and exercises to enable a rapid response. This line item funds activities that enable APHIS to achieve a high state of readiness and be able to respond rapidly and effectively to emergency events, thus lessening the impact of those events on producers, consumers, taxpayers, and the overall economy. Also through this line item, APHIS and the Centers for Disease Control and Prevention (CDC) jointly manage the Federal Select Agent Program (FSAP), which oversees the possession, use, and transfer of biological select agents and toxins that have the potential to pose a severe threat to public, animal or plant health or to animal or plant products.

The EPR program supports coordinators in each of the 10 Federal Emergency Management Agency (FEMA) regions for Emergency Support Function #11: Agriculture and Natural Resources (ESF #11). The coordinators work with local, State, Tribal, Territorial, Insular Area Governments, and other Federal agencies during actual and potential incidents to respond to animal and agricultural health issues; provide technical expertise in support of animal and agricultural emergency management; ensure the safety and defense of the Nation's supply of meat, poultry, and processed egg products; and ensure the protection of natural and cultural resources and historic properties. In addition, APHIS provides technical support to FEMA for preparedness for the care of pets and service animals during disasters. The EPR program also maintains Emergency Qualifications System (EQS) Dispatchers, who coordinate the delivery of emergency resources, as well as the APHIS security coordinator program.

Preparedness, Partnerships, & Planning

In FY 2018, APHIS continued to expand its animal health readiness capacity by increasing the number of first responders to enable the Agency to respond more rapidly and effectively to animal health emergency events. The EPR Program supports the National Incident Management System training for emergency responders. As of the end of FY 2018, 133 of the 144 (92 percent) National Incident Management Team Command and General Staff positions were filled, and 93 (70 percent) of the employees were fully trained. In addition, APHIS expanded training for its safety cadre to provide occupational safety and health support for emergency responses, and developed a security cadre to provide physical and operational security support for emergency responses. In FY 2018, APHIS developed the security coordinator training program. Approximately 20 APHIS employees are trained as security coordinators. The ESF #11 Coordinators also trained more than 1,000 ESF #11 Desk Officers. The training ensures readiness at the National and Regional Level outlining procedures and protocols for ESF #11, facilitating communication and continuity to ensure efficient coordination of resources during major disasters. In FY 2018, APHIS worked with FEMA in planning and preparedness activities for 18 scenarios including but not limited to New Madrid Seismic Zone, Nation State Threat, Wasatch Fault Zone, NORTHCOM Defense Support to Civil Authorities, Threat and Hazard Identification and Risk Assessment, Hurricane, Food Protection, Exotic Response, Spring Flooding, Super Bowl Consequence Management, Tribal Assistance Coordination.

APHIS also serves as a liaison between State and local officials to protect pets, breeders, dealers, and exhibitors regulated by the Animal Welfare Act (AWA) to enhance coordination on animal disease preparedness efforts. The agency works through ESF #11 (Agriculture and Natural Resources) and ESF #6 (Mass Care, in coordination with FEMA) to support pet owners in disasters. In addition, APHIS invests in the Zoo Animal All Hazards Preparedness, Response and Recovery Fusion Center to help the exotic animal industry in emergencies. During wildfires and two major hurricanes, APHIS used a 24/7 call-and text message line for facilities licensed and registered under the AWA to address their recovery needs. This relationship assured that the owners of these facilities were well informed and participated in efforts to prevent the impacts of foreign animal diseases. In addition, APHIS developed tools for the biomedical research community to help laboratories protect the animals and the research in the event of a disaster.

Preparedness Training and Exercises

In May 2018, APHIS hosted the Agriculture Response Management and Resources (ARMAR) exercise to test foot-and-mouth disease (FMD) response capabilities. This exercise included other federal, state, and local agencies, as well as animal agriculture industry groups. It focused on incident information, resource management, response policies, communications, and interagency coordination. Participants tested operational and logistical plans, developed or strengthened relationships and communications, and increased emergency response preparedness.

In FY 2018, ESF#11 Coordinators participated in the planning and execution of more than 40 FEMA and State-led exercises ranging from tabletops exercises to drills providing cross-functional coordination and assistance. These exercises covered various scenarios including hurricane response, large scale power outages, evacuation and sheltering, animal disease response, and radioactive release response.

Response Efforts and FAD Investigations

In FY 2018, APHIS conducted 1,993 foreign animal disease investigations, of which 1,691, or 85 percent, were vesicular. This is the most investigations conducted in a fiscal year. The high number of vesicular investigations resulted from the ongoing Seneca Valley A virus (SVA) disease in pigs in the United States and Canada, and the virulent Newcastle disease (vND) outbreak in California. Although SVA is not regulated, it mimics FMD, which is the highest consequence foreign animal disease in terms of regulatory intervention and economic consequences.

After APHIS confirmed the presence of vND in a small flock of backyard exhibition chickens in Los Angeles, California, in May 2018, the agency conducted response activities to contain and control the outbreak. APHIS contributed 611 personnel for deployments to California, with the average deployment being three weeks. APHIS National Incident Management Teams deployed for seven rotations.

In FY 2018, FEMA activated ESF-11 coordinators 11 times for incidents including but not limited to wildfires, flooding, and mudslides in California; lava flow and two hurricanes in Hawaii; Hurricane Isaac in Puerto Rico and the U.S. Virgin Islands, Hurricane Florence in the Carolinas, and 23 alerts. APHIS dispatched 1,697 responders to 46 incidents or events, including the 11 for which the coordinators responded. The Agency's dispatchers worked with the Incident Coordination Group and program contacts to mobilize resources within the requested timeframes. APHIS also dispatched employees to respond to vND, spotted lanternfly, European cherry fruit fly, wildlife/tick and highly pathogenic avian influenza (HPAI) surveillance, several oil spill responses, and Hurricanes Maria, Nate, and Florence. A total of 54 Voluntary Emergency Response Reserve Corps (VERRC) members were dispatched in FY

2018 in response to requests for resource support. The VERRC is a pool of APHIS employees who are trained to fill commonly requested emergency response positions.

APHIS' Wildlife Services Emergency Response System was active in various responses in FY 2018 including animal diseases, contaminant spills, and exotic invasive pest species. In addition, the program worked with Federal, State, and local government agencies to better characterize the spread of the East Asian tick in Virginia.

Safeguarding of Select Agents

The FSAP administers the select agents and toxins regulations in coordination with the Federal Bureau of Investigation (FBI). Any individuals or entities possessing, using, or transferring select agents or toxins must register them with APHIS (if the agent affects animal or plant health) or the CDC (if the agent affects human health). Facilities must meet safety requirements, including measures to ensure the safety and security of the products and prevent their release. APHIS and CDC inspect facilities that use or transfer these agents to ensure compliance, and each other's facilities to eliminate potential conflicts. APHIS' Agriculture Select Agent Services (AgSAS) ensures that facilities address all non-compliances, and initiate enforcement actions. As of September 30, 2018, 37 entities that contain select agents covered under APHIS authority are registered with AgSAS, and 42 entities that contain these agents are registered with CDC. In FY 2018, AgSAS received and processed more than 80 amendment requests consisting of administrative amendments, technical amendments that required on-site inspections, and amendments that were both technical and administrative. In addition, AgSAS conducted 46 inspections in which 12 were verification inspections, 18 renewal inspections, 5 compliance inspections, 2 maximum containment, and 9 other inspections that include amendments. APHIS issued corrective letters for deficiencies identified, and collaborated with entities to develop Corrective Action Plans to address serious noncompliance issues. The Agency conducted joint inspections with CDC, DHS, and the Department of Defense. In addition, AgSAS collaborated with the FBI to conduct Security Risk Assessment (SRA) to determine the suitability of individuals requesting to have access to select agents and toxins. Calendar year 2018 figures are not yet available; however in 2017, AgSAS facilitated 3,714 SRAs conducted by the FBI, and restricted the access of 17 individuals based on the results. In FY 2018, AgSAS supported entities and other partners during natural or man-made hazardous events, to ensure the safety and security of select agents and toxins during times of disaster.

In FY 2018, APHIS and CDC continued to institute changes in operations and policies in response to multiple incidents involving the possible release of select agents in 2014. The most significant improvement was the implementation of the joint CDC-APHIS select agent database and external portal for regulated entities. This system allows registered entities to provide information directly through a secure portal, eliminating data entry errors and reducing cycle time for submitting amendment requests and responses to APHIS information requests. The new system became operational in December 2017, and FSAP implemented individual modules as they became operational; piloting and testing the system, developing program guidance for its use, and providing training to staff and regulated entities. In FY 2018, FSAP also focused on several GAO recommendations related to program assessments. The primary activity, engaging staff at all levels, was the development of a Joint FSAP Strategic Plan and associated implementation and monitoring programs. FSAP also solicited external assistance to perform a joint workforce assessment and assessment of the FSAP organizational structure. Also in FY 2018, FSAP established regular coordination with USDA representatives overseeing the construction and stand-up of the National Bio- and Agro-Defense Facility (NBAF) in Manhattan, Kansas, to provide guidance on the select agent registration process. FSAP assigned staff liaisons to collaborate with NBAF project leadership, performed an on-site visit to review the facility design, and provided input into regulatory standards, the process, and timelines for select agent registration.

Modeling and Monitoring

In FY 2018, APHIS continued to enhance models for FMD, classical swine fever, and HPAI to evaluate the impact of alternative vaccination protocols, the effects of single or integrated alternative control strategies, and potential economic consequences of disease introduction and spread. Also in FY 2018, the agency developed an African swine fever model application to estimate the laboratory capacity necessary to meet the potential diagnostic demand for outbreaks. In addition, APHIS generated a vND model to describe the potential severity, directionality, and duration of simulated outbreaks introduced into backyard poultry operations in Southern California. The agency used disease-spread modeling to support State Animal Health Officials in their emergency preparedness activities, and to provide exercise organizers with realistic and epidemiologically-supported disease spread, detection, tracing, and surveillance options during the ARMAR FMD exercise.

Biosecurity

APHIS participates on the Biosurveillance Indications and Warning Analytic Community (BIWAC) steering committee to increase understanding of agricultural threats across the Federal government, providing context for threats that may also affect human health and/or the U.S. economy. Through this interaction, APHIS leverages tools

to augment other agency biosurveillance initiatives. APHIS also participates in National Biosurveillance Integration Center (NBIC) briefings on global emerging human, animal, and zoonotic diseases, including updates of HPAI spread through Europe; ASF detections in domestic and wild boar in Europe and China; and the first classical swine fever detection in Japan in 26 years. In addition, the BIOFEEDS tool continues to provide APHIS with global animal and zoonotic disease information for U.S. risk identification. NBIC integrates, analyzes, and distributes information about health and disease events to help ensure the nation's responses are well-informed, save lives, and minimize economic impact. APHIS officials provide context and global epidemiological perspectives to the updates, and situation updates to the NBIC Daily Monitoring List, which is distributed throughout the Federal government. These updates have included HPAI, low pathogenic avian influenza, New World screwworm, and vND.

Safe Trade and International Technical Assistance

Current Activities

APHIS monitors animal and plant health throughout the world and uses the information to set effective agricultural import policies to prevent the introduction of foreign animal and plant pests and diseases. APHIS and the Department of Homeland Security cooperate to ensure that these policies are enforced at U.S. ports of entry. APHIS also develops and conducts pre-clearance programs to ensure that foreign agricultural products destined for the United States do not present a risk to U.S. agriculture. The Agency engages in cooperative programs to control pests of imminent concern to the United States and to strengthen foreign plant protection and quarantine organizations. The Agency also provides scientific and technical support in resolving sanitary (animal) and phytosanitary (plant) trade barriers.

APHIS' negotiates animal and plant health certification requirements, assists U.S. exporters in meeting foreign regulatory requirements, ensures requirements are proportional to risk without being excessively restrictive, and provides any necessary technical information to support the safety of U.S. agricultural products destined for foreign markets.

Selected Examples of Recent Progress in Facilitating Safe Trade

Agriculture Import/Export

APHIS works with other Federal agencies, States, foreign governments, industry, and academia to protect U.S. agriculture while facilitating the safe trade of animals and animal products. APHIS' animal health experts ensure that U.S. import requirements safeguard U.S. livestock health and negotiate requirements for the export of U.S. animals and animal products worldwide. These requirements are based on compliance with international standards, sound scientific principles, and fair trading practices for animals and animal products. Moreover, APHIS sets quarantine, testing, and other requirements under which animals and animal products can be imported or exported. These requirements help ensure that global markets can be accessed, expanded, or maintained with little or no risk to U.S. animal production and human health.

APHIS also conducts activities related to the 2008 Farm Bill amendments to the Lacey Act, which prohibit the importation of any plants, with limited exceptions, that are taken or traded in violation of domestic or international laws. The Act requires a declaration for imported shipments of most plants or plant products. A 2012 study by the United Nations Environmental Programme estimated the value of illegal logging, including processing, to be between \$30 to \$100 billion dollars, or 10 to 30 percent of the global wood trade. The Lacey Act amendments are designed to help combat this illegal logging by encouraging importers to research their supply chains and be aware of the laws governing products they purchase in other countries. APHIS' role is to evaluate and implement existing regulations, provide guidance to importers regarding the required declaration, perform compliance checks, provide enforcement agencies with declaration information to assist their investigations, and maintain declaration records.

Imports

To facilitate imports, APHIS evaluates the animal health status of regions that wish to export animals and/or animal products to the United States. This evaluation process minimizes the risk of introducing animal diseases through importation and is consistent with international trade requirements. In FY 2018, APHIS completed several evaluations and published regulatory actions based on those evaluations in the *Federal Register*. These include notices to recognize Japan as free of classical swine fever, and the State of Chihuahua, Mexico, as free of cattle fever ticks. APHIS also published a notice concurring with the World Organization for Animal Health risk designations of three regions (Croatia, Poland, and the United Kingdom) for bovine spongiform encephalopathy and updated regulations to remove rinderpest as a regulated disease since it has been eradicated worldwide.

APHIS also conducted eight site visits within several regions in FY 2018 to confirm their surveillance, prevention, and control measures are sufficient to minimize the likelihood of introducing foreign animal diseases into the United

States. In FY 2018, APHIS implemented a review process for regions that have previously been granted animal health status recognition such as New Zealand, Chile, and Costa Rica. APHIS finished the review for New Zealand in FY 2018. Additionally, due to recent reports of outbreaks in the region, APHIS added China to the list of countries affected with African swine fever.

APHIS continues to ensure that import regulations are effective and science-based and to work with U.S. businesses and importers to facilitate safe trade. For example, the Agency is working to improve traceability of imported animals by implementing the use of identification scanners at the Mexican border that will upload ear tag information into our traceability databases. In FY 2018, APHIS issued 16,377 import permits for live animals, animal products, organisms, and vectors. These include new permits, renewals, and amendments. APHIS facilitated the World Equestrian Games in North Carolina, including the import and export of almost 800 horses from 75 countries for this special event.

APHIS continues to develop more regulatory flexibility, including removing the import permit requirement for certain low risk and exempted animal origin ingredients and products. APHIS removed the import permit requirement for certain U.S. Food and Drug Administration approved commodities that contain animal derived material, including pharmaceuticals, vaccines and medical devices. APHIS also continued collaboration with Canada to harmonize the trade protocols for thermally processed pet food, treats, and chews, resulting in removal of requirements for import permits and streamlining the required health certification.

Exports

To open, re-open, and maintain U.S. access to worldwide export markets, APHIS negotiates science-based conditions with trading partners for various commodities that protect their country while also facilitating trade. In FY 2018, APHIS negotiated or re-negotiated 98 export protocols for animal products (16 new markets, 47 re-opened markets, 17 expanded markets, and 18 retained markets). This includes retaining market access for poultry exports in numerous countries that imposed restrictions due to outbreaks of avian influenza and Newcastle disease.

APHIS negotiated 107 export protocols for live animals (38 new or reopened markets in 29 countries, 21 retained markets in 15 countries, and 48 expanded markets in 27 countries), including new markets for cattle to Bangladesh and Ghana, and horses to China. To complete export requests, APHIS conducted voluntary inspections of 1,314 U.S. manufacturing facilities to maintain, expand, or open export markets in many countries. APHIS also participated in industry stakeholder meetings, provided technical support for World Trade Organization cases, coordinated or supported six audits, and engaged in bilateral trade meetings with 16 countries. In addition, APHIS developed information packages and questionnaire responses from various countries to maintain, expand, or open export markets.

APHIS endorses export certificates for live animals and inedible animal-origin products, documenting the animal health status and facilitating export to all markets. In FY 2018, APHIS endorsed more than 326,000 export health certificates for animal products, livestock, poultry, germplasm, and pets. This was approximately 38,000 more than in FY 2017.

APHIS continued to increase the number of animal health export certificates issued electronically this year by expanding the system's capabilities. APHIS has digital signature capabilities, a certificate upload feature, and is working to expanding the number of countries and commodities for which electronic certification is available. This includes establishing bilateral pilot projects with Mexico and expanding the ongoing project with Canada to allow or extend exports with electronically issued and digitally signed certificates.

Lacey Act

In FY 2018, APHIS received approximately 850,000 Lacey Act declarations electronically or on paper. The number of declarations received in FY 2018 decreased from FY 2017 due to correcting a technical issue where the electronic system was sending the Lacey Act program information about products not subject to the declaration requirement. In FY 2018, APHIS continued focusing on developing and implementing the Department of Homeland Security's Customs and Border Protection's (CBP) Automated Commercial Environment (ACE) system for the Lacey Act program as well as improving the Lacey Act Web Governance System (LAWGS). ACE is part of a government-wide effort to streamline export and import processes for U.S. businesses. Importers file more than 90 percent of declarations through ACE. Along with increasing awareness and compliance among importers, ACE reduces unnecessary filings by allowing importers to incorporate information from several entries into a single entry. It also has the potential to reduce errors in Lacey Act filings by prescribing the types of responses allowed for certain fields and allowing APHIS to reject declarations with certain types of errors, forcing the importer to re-file with correct information. These improvements allowed APHIS to focus its analytical capabilities on potentially fraudulent

declarations through a pilot program designed to provide rapid queries of the database containing declarations along with publicly available information such as lists of critically endangered plants throughout the world, known natural growing distribution of plant species, and proper spellings of scientific names, among other things. In addition, APHIS developed a module in LAWGS that will further enhance compliance reviews by automating initial screenings of declarations and flagging certain types of issues for further review, which became operational in early FY 2019.

To continue building compliance capabilities, APHIS is working with the U.S. Forest Service to determine if APHIS could use existing wood identification tools in port environments to inspect imported shipments to determine if the species listed on the Lacey Act declaration is accurate. This is the second year of a two-year effort that will determine if the tools are practical and feasible for port-of-entry inspections or compliance checks. APHIS continued to work with importers to clarify and establish requirements for Lacey Act declarations for timber and timber products admitted into U.S. foreign trade zones (areas near ports of entry where imported goods are not subject to tariffs during storage, manufacturing, and exhibiting processes) and into bonded warehouses through numerous meetings and outreach events with the trade community. Because ACE does not currently recognize tracking numbers associated with imports to foreign trade zones, APHIS established a temporary solution through LAWGS to allow importers to file Lacey Act declarations. APHIS is working with CBP and other partner government agencies to develop a solution for foreign trade zone filers in ACE. Additionally, APHIS continued to work with its counterparts in other countries to establish cooperative relationships regarding ways to combat illegal logging and other activities the Lacey Act is designed to reduce.

Overseas Technical & Trade Operations

Through the Overseas Technical & Trade Operations (OTTO) program, APHIS helps U.S. farmers and ranchers export their products to other countries by resolving concerns over animal and plant health issues that affect trade of agricultural products. APHIS uses its technical expertise to develop science-based agreements with other countries for U.S. exports and international standards for trade. The Agency also collaborates with USDA's Foreign Agricultural Service, the Office of the U.S. Trade Representative, and other technical agencies to provide a coordinated effort on trade issues that affect U.S. producers. U.S. exports of agricultural products exceeded \$143 billion in FY 2018, \$3 billion more than in FY 2017.

In addressing sanitary and phytosanitary (SPS) barriers to trade, APHIS uses its strong scientific base and team of technical experts located in the United States and abroad to advocate on behalf of U.S. agriculture. These scientists build relationships with counterparts and use scientific principles to make the case for American agricultural exports and explain to foreign officials why U.S. commodities are safe to import. These conversations take place in ongoing, discussions, technical bilateral meetings, and multilateral fora. To strengthen APHIS' ability to respond quickly to trade issues, the Agency has scientists, including veterinarians and entomologists, stationed throughout the world in more than 30 countries to collaborate on animal and plant health issues with their foreign counterparts to support U.S. exports and science-based international plant and animal health standards that facilitate trade and reduce risk.

Examples of APHIS' efforts for new market access include: U.S. corn to Myanmar valued at \$6 million; U.S. chipping potatoes to the Dominican Republic valued at \$2 million; and U.S. ginseng seed to Chile valued at \$1 million. Other recent successes include new access for U.S. lamb and goat meat to Japan and progress on new access for U.S. beef to Argentina. APHIS also achieved market expansion for both U.S. rough rice totaling \$58 million and rice seed to Colombia totaling \$30 million.

In FY 2018, APHIS and other USDA agencies worked quickly to retain access for U.S. soybeans to China, a market worth more than \$12 billion in 2017, after China implemented broad new requirements covering plant health, food safety, and quality issues for imported grains. APHIS and industry partners developed and implemented new measures to address China's concerns within a 5-month period to keep this market open. APHIS also retained access for live poultry to Indonesia in FY 2018, a market worth \$22 million in 2017.

APHIS continues to enhance U.S. efforts to retain markets threatened or lost due to outbreaks of avian health diseases including highly pathogenic avian influenza (HPAI), low pathogenic avian influenza (LPAI), and Virulent Newcastle Disease (vND). As part of this effort to advocate for U.S. poultry producers, APHIS met with officials from key trading partners in South America, the Middle East, and Asia and responded to individual countries' concerns through numerous venues. Key successes in FY 2018 include the limited scope of restrictions placed on the U.S. from the detection of vND in backyard exhibition flocks in California and the various detections of LPAI in the United States. APHIS' outreach to its counterparts in other countries on the U.S. surveillance system for avian influenza continues to lessen the impact of individual detections on U.S. poultry trade.

Even for markets that are open to U.S. agricultural products, APHIS must continually address issues to keep trade flowing smoothly. APHIS works with foreign counterparts to clarify or streamline certification requirements, making it easier and less costly for U.S. exporters to move their products overseas. When shipments are delayed at foreign ports, APHIS negotiates the overseas process to get products moving again. APHIS successfully secured the release of more than 270 shipments worth more than \$50 million in FY 2018. These detained shipments included a shipment of poultry products destined for Afghanistan worth \$5 million and a shipment of live cattle in Turkey worth more than \$1 million.

Building relationships in emerging markets often involves field visits, or training of foreign government officials to build their capacity to put in place scientifically sound SPS requirements. In FY 2018, APHIS educated 283 foreign officials about the U.S. regulatory process by hosting them during 58 visits. APHIS also coordinated and prioritized 130 requests received for subject matter expertise, trainings, and other outreach-related activities. For example, APHIS worked with the Tuskegee University to train two groups of 50 veterinarians and/or government officials from 21 African countries in SPS Risk Assessment Trainings. Plant health officials from 21 countries attended the APHIS Plant Health Systems Analysis Course held in FY 2018. Additionally, APHIS provided three trainings in animal health with an emphasis in HPAI surveillance and emergency response to 44 government officials representing approximately 39 countries. These activities are designed to help other countries increase their regulatory capacity, which over the long term, help prevent the trans-national spread of serious pests and diseases as well as increase other countries' ability to engage in safe agricultural trade.

APHIS emphasizes the use of scientific principles as a basis for international trade decisions to help ensure that the same rules apply to countries around the world and foster a successful trading environment. To achieve this level playing field, APHIS works with international standard-setting bodies such as the World Organisation for Animal Health and the International Plant Protection Convention to encourage other countries to follow this model. By gaining support for scientific decision-making and following international standards when considering what can be imported into the United States, APHIS increases U.S. agricultural exports. In FY 2018, APHIS participated in a special thematic session on pest-free areas held in Geneva along with the March, 2018 World Trade Organization (WTO) SPS Committee meetings. The session allowed the United States to promote our system for establishing and managing pest-free areas for plant parasites and diseases (both for managing them within the United States and for taking action on imports from other countries) and encourage other WTO members to use similarly transparent and science-based systems to evaluate U.S. exports.

In an effort that began in FY 2015 and continues today, APHIS began comprehensive succession planning of its workforce, with special emphasis on developing its Foreign Service cadre. This recruitment and developmental process emphasizes applicants' animal and plant science backgrounds, focusing on increasing new officers' knowledge of all APHIS mission areas, and, increasing cooperation with other international partners like USDA's Foreign Agricultural Service. The training program further develops Foreign Service trainees' diplomatic, cross-cultural, and leadership skills. APHIS has recruited 17 new recruits under this program, augmenting its current overseas Foreign Service cadre, many of whom are eligible for retirement in the next five to ten years. The succession effort helps ensure that APHIS has trained staff to support U.S. exports and overseas animal and plant health programs. As a result of this recruitment and training program, APHIS has deployed 11 new Foreign Service personnel to Mexico, Japan, China, Brazil, Costa Rica, the Dominican Republic, Senegal, South Africa, and other locations in key markets for U.S. exports. In addition, APHIS has developed a process to evaluate the location of its overseas offices and the most effective way to support the Agency's mission, strengthening APHIS' ability to address SPS and other issues overseas in traditional and emerging markets.

Agricultural trade is essential for the U.S. export market, and may be subject to costly disruptions from animal and plant health barriers. Technical trade, capacity building, and regulatory activities support export opportunities for U.S. producers while providing fruit, vegetables, and animal protein sources to international markets. APHIS will continue to cultivate international trade opportunities for America's animal and plant products while safeguarding U.S. agriculture from pests and diseases.

Animal Welfare

Current Activities

The Agency ensures the humane care and treatment of certain animals and horses as required by the Animal Welfare Act of 1966 as amended (7 U.S.C. 2131-2159), and the Horse Protection Act (HPA) of 1970 as amended (15 U.S.C. 1821-1831) through inspection, education, and enforcement efforts. These activities include inspection of certain establishments that handle animals intended for research, exhibition, wholesale pet trade, or transported in commerce. During these inspections, APHIS reviews the animals, premises, facilities, husbandry practices, program

of veterinary care, records, and animal handling procedures. APHIS also administers the HPA, as amended, which prohibits the showing, sale, auction, exhibition, or transport of sore horses. Program personnel evaluate the performance of industry-licensed inspectors and conduct unannounced inspections at horse shows, exhibitions, sales, and auctions.

Selected Examples of Recent Progress in Animal Welfare:

Animal Welfare

APHIS' Animal Welfare Program has the unique Federal role of ensuring the humane care and treatment of animals covered by the Animal Welfare Act (AWA) through inspection, learning opportunities, and enforcement efforts. More than fifty years ago, in 1966, the AWA was signed into law. Since that time, APHIS, acting through the Animal Care Program and its predecessors, has protected millions of regulated animals used in research, exhibition, and the pet trade as well as those transported in commerce. In FY 2018, the program oversaw 8,676 licensees and registrants associated with 12,338 facilities.

Licensing Activities

The AWA requires all facilities that use animals regulated under the Act to obtain a license or registration with APHIS. Prior to issuing a license, APHIS works closely with potential applicants to ensure they understand the requirements of the AWA regulations and standards and demonstrates compliance with them. The Agency develops customized materials and presentations to focus on specific aspects at each facility, and, by regulation, allows facilities up to three inspections to demonstrate compliance prior to issuing a license. In FY 2018, APHIS conducted approximately 800 pre-licensing inspections, and issued 735 new licenses. The Agency determines on-going compliance by conducting unannounced inspections within three months of issuing the license. At the first unannounced inspection, 98 percent of these newly licensed facilities were in substantial compliance, with no critical or repeat AWA citations on the inspection report.

During 2016, APHIS conducted a review of the application processes required of AWA applicants. The review identified areas to reduce burden on new applicants, as well as allow applicants to submit approved revisions to initial applications through less costly and more efficient processes. The Agency also instituted a new process to assist applicants with calculating their licensing fees to promote consistency and reduce errors involving fee calculations; invested in a phone system that connects applicants with the appropriate staff in a more timely and efficient manner; and, created a system for distribution of work to build continuity of service and better balance the workload. In FY 2018, APHIS processed 97 percent of new applications within the improved timeframe, resulting in a 20 percent improvement in the overall time a new applicant for a license or registration must wait before engaging in regulated activities. Additionally, in FY 2018, the Agency implemented a renewal reminder call initiative that notifies that licensee when the license is close to expiration. This initiative resulted in a 24 percent decrease in the number of licenses that lapse as a result of the failure to submit a timely renewal application (from 475 lapsed licenses in FY 2017, to 363 lapsed licenses in FY 2018), and a cost savings associated with at least one full-time inspector by foregoing unnecessary re-licensing processes.

For licensed and registered facilities, APHIS inspectors perform primarily unannounced inspections to assess compliance with the AWA. During inspections, Agency officials examine and inspect all areas of animal care and treatment covered under the AWA. The Agency reviews the animals, premises, facilities, husbandry practices, program of veterinary care, records, and animal handling procedures. In FY 2018, APHIS conducted 10,342 inspections and found 98 percent of all facilities to be in substantial compliance with the AWA.

APHIS' compliance support program assists facilities struggling to achieve or sustain compliance with the AWA. The program conducts a root cause analysis of the compliance challenges, works with the licensee to develop an individual plan to address the non-compliances, and provides learning opportunities for facility employees. In FY 2018, the program expanded its compliance tools to include customized calls, visits, letters, and other types of extension bulletins to promote compliance at the forefront. APHIS completed approximately 570 non-inspection visits with regulated facilities to work through compliance changes in FY 2018, which was an increase of more than 312 percent compared to FY 2017. Of the facilities visited, APHIS sampled 20 percent and found more than 50 percent of those facilities to be in compliance during their most recent inspection.

In support of USDA Agricultural Research Service's (ARS) efforts to promote animal welfare and establish the fully functioning Institutional Animal Care and Use Committees at its animal research facilities, APHIS has registered 35 ARS research facilities under the AWA. After completing pre-compliance visits to assess welfare conditions at ARS research facilities in FY 2016, the Agency focused on monitoring the health and welfare of animals housed at ARS facilities through the use of our unannounced inspection process. In FY 2018, APHIS conducted 44 inspections at 35

ARS facilities. APHIS found all ARS registered facilities to be in compliance during the unannounced inspection process.

Enforcement Activities

When APHIS inspectors discover conditions or records that are noncompliant with the regulations, the Agency may establish a deadline for corrective action and increases frequency of unannounced inspections to determine whether the facility made the necessary modifications. Continued, serious noncompliance may warrant an investigation that can result in sanctions ranging from monetary penalties to suspension or revocation of the facility's license, after notice and an opportunity for a hearing.

To support animal welfare, APHIS initiated 19 cases for alleged violations of the AWA, issued 44 official warnings, issued 8 pre-litigation settlements resulting in the collection of \$32,650 in stipulated penalties, and obtained 14 administrative orders, assessing \$265,499 in civil penalties. In one case, APHIS entered into a Consent Decision relating to multiple willful violations of the AWA, resulting in a \$99,999 civil penalty. In another case, APHIS obtained an administrative order against an individual relating to alleged AWA violations occurring from March 2008 through January 2012, assessing a \$30,000 civil penalty. APHIS also negotiated several pre-litigation settlement agreements, including one involving a research facility that agreed to the assessment of a \$10,000 civil penalty to resolve multiple alleged AWA violations.

Outreach/Stakeholder Activities

APHIS' Animal Welfare Program serves as a national resource for policy development and analysis, supports compliance efforts through non-regulatory methods such as education, training, and outreach to stakeholders to convey critical and current animal welfare information, and reviews and promotes science and technology related to improving the welfare of animals. It also maintains a team of animal welfare specialists to conduct additional visits to regulated facilities with specialized species.

APHIS' Animal Welfare Program continued to place emphasis on public outreach and learning opportunities. An example of the efforts using non-regulatory solutions to promote animal welfare include co-sponsoring the Canine Care Workshop, along with Missouri Department of Agriculture, to administer training and respond to questions from more than 175 breeders and industry leaders that resulted in the publishing of two technical notes. One note outlined the new incentive program that recognizes licensees/registrants who routinely monitor their activities and take appropriate and timely action to address noncompliant items. The second note provides helpful information so licensees/registrants can better fulfill the regulation requiring them to assess the health and well-being of their animals every day. The program also issued 10 newly-designed one-page, easy to use "Animal Care Aids" on species-specific preventative care focused on topics that place facilities at risk of noncompliance involving dogs and bears; published a new webpage explaining the requirements on the importation of dogs into the United States for purposes of resale, such as commercial sale or adoption, including information on obtaining a permit; revised the Animal Welfare Inspection Guide and made it available on the APHIS website; developed correspondence and an informational video on the role of the attending veterinarian and information on how to become an attending veterinarian; and completed necessary updates to the Animal Care Information System that allowed the Agency to repost animal species inventories on the public search tool.

Regulatory Changes

On June 1, 2018, APHIS published a final rule that amended the AWA regulations. The rule broadened the *de minimis* licensing exemption for persons maintaining four or fewer breeding female dogs, cats, or small exotic or wild mammals, and who sell the offspring for pets or exhibition, to include additional types of pet animals and domesticated farm-type animals. In addition, the rule added to the regulations a new licensing exemption for any person maintaining eight or fewer pet animals, small exotic or wild animals, or domesticated farm-type animals for exhibition. APHIS issued over 500 letters to AWA licensees to notify them of their potential eligibility for exemption from regulatory oversight. These actions will allow the Agency to focus its limited resources on situations that pose a higher risk to animal welfare and public safety.

In January 2018, the Agency sought input from stakeholders on whether we should recognize inspections (and similar reviews) by third-party programs when determining the frequency of federal inspections for facilities regulated under the AWA. APHIS held five in person listening sessions with approximately 500 participants, as well as three virtual listening sessions by telephone with the general public and state partners. Altogether, the Agency received and reviewed over 31,000 comments including over 7,000 unique comments. After considering the comments received, reviewing existing third party inspection and certification programs, and state regulatory frameworks, APHIS will not pursue the proposed program.

Horse Protection

Since 1970, APHIS has enforced the Horse Protection Act (HPA), a Federal law aimed at ending the cruel and inhumane practice of soring and preventing unfair competition by making it unlawful to show, sell, or transport sore horses. Soring is a practice in which people apply caustic chemicals and/or mechanical devices to a horse's pasterns, which cause the horse to experience pain or distress while walking or moving. This practice is used primarily in training Tennessee Walking Horses, racking horses and related breeds to produce a high stepping gait, which is prized at some competitive horse shows and other events. USDA conducts oversight of the program through evaluation of the performance of industry-licensed inspectors and conducting unannounced inspections at horse shows, exhibitions, sales, and auctions.

Inspection Activities

Under the HPA, the management of horse shows, exhibitions, sales, and auctions are responsible for ensuring that sored horses do not unfairly compete alongside horses that are not sore. If a horse is found to be sore, management has the responsibility of disqualifying them from participating in HPA-covered events. Management may use third-party inspectors that USDA-certified horse industry organizations (HIOs) train and license to inspect horses for compliance with the HPA. These third-party inspectors are known as Designated Qualified Persons (DQPs).

APHIS attends a select number of HPA-covered events each year to observe DQP performance and inspect horses for HPA compliance. In FY 2018, APHIS attended 64 horse events, inspected 1,638 horses and identified 160 instances of suspected noncompliance with the HPA. In FY 2018, the Agency continued to build its relationship with horse show management. This included hosting joint training with USDA inspectors and DQPs to promote consistency in compliance inspections, increasing direct communication with management to ensure they receive updates on USDA's HPA Disqualification List, providing quarterly updates on HIO inspection data and creating a "HIO Report Card" to assist management in making informed decisions when retaining HIO services.

In FY 2018, DQPs attended 261 HPA events and inspected 51,347 horse entries. In total, DQPs identified 649 HPA noncompliances, and management disqualified 596 entries; this represents a nearly 90 percent increase in DQPs' detection of HPA noncompliances relative to FY 2017, when DQPs inspected 47,373 horses and detected 337 instances of noncompliance with the HPA.

Enforcement Activities

APHIS' Animal and Plant Health Regulatory Enforcement program worked with the Office of the General Counsel to obtain 47 administrative orders assessing \$56,200 in civil penalties, and disqualifying 44 individuals from participating in activities regulated under the HPA. In one case, APHIS entered into a consent decision related to entry of a single horse on nine occasions, resulting in an 18 month disqualification to one respondent, an 8 month disqualification to the other respondent, and a joint civil penalty of \$19,800 to both respondents. APHIS is actively engaged in pursuing administrative enforcement action involving 90 respondents for alleged violations of the HPA. Following the U.S. Supreme Court's ruling on the challenge to the appointment of ALJs in June 2018, APHIS anticipates administrative proceedings will resume quickly.

Outreach/Stakeholder Activities

In FY 2018, APHIS presented one training session in conjunction with industry inspectors. The session provided refresher training to existing DQPs and USDA inspectors, and initial training for those interested in becoming DQPs. Agency representatives also attended two HIO training clinics to provide support and clarification regarding HPA requirements. Additionally, in February 2018, APHIS held two shoeing and inspection clinics for walking horse owners, trainers and exhibitors to enhance understanding of the regulatory requirements and inspection processes.

APHIS has made significant efforts to increase transparency regarding inspection techniques and results. This includes providing full inspection report data, including noncompliant items identified by type, and number of horses management disqualified from participating in HPA-covered events on the APHIS website:

https://www.aphis.usda.gov/aphis/ourfocus/animalwelfare/SA_HPA.

Agency Management

Current Activities

The Agency Management programs support the daily operations of APHIS and provide for a safe and secure work environment. These programs provide the information technology, space and telecommunications infrastructure that gives Agency employees the tools they need to carry out their responsibilities. These programs also oversee and implement precautionary security measures for continued mission operations while ensuring the safety of APHIS people and facilities. In addition, these programs support APHIS' contribution to the U.S. Department of State's

continuing implementation of the Capital Security Cost Sharing Program, which provides safe and secure workplaces for all U.S. government employees located overseas.

Selected Examples of Recent Progress in Agency Management:

APHIS Information Technology and Infrastructure

APHIS' Information Technology Infrastructure (AITI) is comprised of the hardware, software, cloud computing and cyber-security infrastructure that provides Agency employees with office automation tools, Internet access, and access to mission-critical information technology (IT) programs and administrative applications. APHIS maintains, enhances, and operates the IT infrastructure to support Agency business, conduct research and analysis, carry out administrative processes, record program activities, and deliver program services. AITI objectives and priorities are to continually improve sharing of information across the Agency; improve integrity and accessibility of information, processes, and resources available to assist programs in emergencies; and improve APHIS' cyber-security. APHIS uses AITI funding to maintain annual software license and hardware agreements, cloud services, and for regular life-cycle replacement of enterprise hardware.

The FY 2018 accomplishments listed below support these objectives.

License Renewal

APHIS supported approximately 9,700 users with license renewals so they can access and legally use the enterprise software in conducting business.

Availability

APHIS supported internal and external stakeholders by providing optimal levels of service. The Agency continued to maintain 99.97 percent availability for its key computing systems this fiscal year. The AITI program also maintained applications availability outside of the normal operational hours, on weekends, and holidays to ensure availability of systems.

Cloud Services

APHIS continues to implement requirements of the Federal government's Data Center Optimization Initiative designed to facilitate the transition to more efficient infrastructure, such as cloud services and inter-agency shared services. This effort includes closing individual agencies' data centers. APHIS closed one of three data centers and awarded a contract to assist in cloud migration so that APHIS can close the remaining data centers. The target for the migration and closure of the remaining data centers is March 30, 2019.

Cyber-Security

APHIS maintained the current version of National Institute of Standards and Technology and Federal Information Security Management Act testing standards to continue protecting our cyber security infrastructure and reducing vulnerabilities of our systems. APHIS further increased its security by implementing a new intrusion prevention system to protect against malicious attacks.

Security Monitoring

The Agency renewed the upgraded security monitoring system that tracks improper use of personally identifiable information data stored in the APHIS infrastructure. This action helps protect confidential information that could potentially identify a specific individual such as citizenship, legal status, gender, race and/or ethnicity. In just one year, the software was able to identify vulnerabilities in APHIS forms that contain bank account, credit card, driver license, passport, social security and telephone numbers as well as date of birth details. Collectively, the numbers exceed over a million incidents of vulnerable information. The security branch is working with the human resources office to mitigate the identified vulnerabilities.

Physical Operational Security

APHIS oversees and implements precautionary measures to ensure continued, efficient mission operations, and protection from disruption, degradation, or destruction of its facilities through the Physical and Operational Security (POS) program. The program provides year-round security measures, such as physical security upgrades, alarms, badging and identification systems, guard services, security assessments, safety and risk assessments, workplace violence training, and investigations of both internal and external threats. These measures protect APHIS employees, visitors, and stakeholders from harm, acts of terrorism, and violence. In addition, this program supports part of the USDA's contribution to the U.S. Department of State's continuing implementation of the Capital Security Cost Sharing program, which provides safe and secure workplaces for all government employees located overseas.

The POS program provides numerous security trainings to Agency employees. In FY 2018, the program provided training to more than 2,150 Agency employees, including seminars relating to active shooter response, situational awareness, scenario-based role playing, illegal drugs, self-defense, terrorism, local crime trends, and travel safety. The program also provided workplace violence training seminars and multiple security briefings for employees who work along the international border or in foreign countries. In FY 2018, the program redesigned the Workplace Violence Prevention classroom training and developed a booklet to assist employees and supervisors with identifying and preventing workplace violence. To enhance preparedness and response, APHIS continued to require active shooter training for all employees through on-line and classroom based training. In addition, the POS program planned and delivered 12 live active shooter training exercises at the Agency's offices in Beltsville, Maryland; Gunnison, Colorado; Nashville, Tennessee; Gainesville, Florida; Penasco, New Mexico; Raleigh, North Carolina (2); Salmon, Idaho; Challis, Idaho; Minneapolis, Minnesota; Charleston, South Carolina; and Phoenix, Arizona. These scenario-based active shooter training exercises involved more than 1,300 employees and provided a dynamic, interactive exercise for all personnel, as well as participating local law enforcement officers. The APHIS active shooter training plan and materials have been vetted by 40 law enforcement agencies and the nation's leading active shooter private consulting firm. Additionally, in FY 2018 APHIS' training and exercise program was Peace Officer Standards and Training certified in the state of Idaho.

The POS program investigates, assesses, and mitigates all internal and external threats directed at Agency facilities, programs and personnel. These threats include death threats, terrorist threats, and assaults, among others. In FY 2018, APHIS investigated 139 external threats to its employees, and 31 workplace violence incidents. The POS program also works to ensure the safety of employees working at or near the Mexican border, and throughout Mexico, Panama, and Guatemala.

Additionally, the POS program ensures the safety of APHIS employees who enforce the Animal Welfare Act (AWA) and Horse Protection Act (HPA). APHIS security specialists investigate threats and respond to requests for protection throughout the country for APHIS veterinarians and inspectors who are enforcing regulations in challenging environments. With regard to safeguarding APHIS employees entering private property, the POS program provided security during 12 inspections of regulated AWA entities, 71 HPA events, and provided protection for more than 20 personnel representing Federal agencies at a multi-day AWA hearing. The POS program also worked across the agency to develop standard operating procedures for security support for AWA and HPA inspections and investigations.

In FY 2018, the program completed physical security assessments at 184 facilities. Of those facilities assessed, the POS program provided 99 facility security upgrades and repairs, to ensure that the buildings are compliant with Homeland Security Presidential Directive-12 (HSPD-12) and the Interagency Security Committee (ISC) recommendations. The HSPD-12 and ISC directives create the standard for secure and reliable forms of identification for facility/network access and compliance regarding physical security at Federal facilities. Additionally, the POS program was responsible for issuing, activating, or updating approximately 7,000 personal identification verification (PIV) cards, bringing APHIS employees in compliance with PIV use.

In FY 2018, the program provided post-hurricane (Maria) security support in Puerto Rico, conducting physical security assessments and supporting transportation of supplies to APHIS offices across the island in fall 2017, and assessed APHIS facilities directly affected by Hurricane Florence in North Carolina in September 2018. These assessments sought to determine physical damage, safety of personnel, locate personnel who had not been reached, and address any possible security threats from these storms. As a result, the program immediately addressed any building deficiencies before confirming that the facilities were back up to security standards.

The program also works with other USDA agencies, the U.S. Department of Justice, U.S. Department of Homeland Security, the U.S. Department of State, and local law enforcement agencies to ensure that the appropriate organization takes the lead, contributes to program costs, and integrates security where employees are co-located overseas. APHIS maintains a presence overseas to facilitate agricultural trade and monitor pest and disease threats. The Security Embassy Construction Counterterrorism Act's Capital Security Cost Sharing Program requires the Agency to help fund the construction of New Embassy Compounds based on the number of authorized positions. In FY 2018, the POS program worked with the U.S. Department of State to establish a security baseline for APHIS facilities overseas. In FY 2018, APHIS had approximately 350 full-time employees based in countries around the world. This program provides safe and secure diplomatic facilities for the Agency's overseas personnel.

Rental and Department of Homeland Security Payments

This account supports costs associated with leased, owned, and rented space the Agency uses to safeguard the health and value of U.S. agriculture and natural resources. The account funds approximately 230 locations associated with General Services Administration (GSA) leases, Department of Homeland Security (DHS) payments, as well as other leased, owned, and agreement funded facilities annually. The funding allows APHIS programs to continue carrying out mission-related activities, including surveillance for animal and plant pests and diseases, pest and disease eradication programs, diagnostic and methods development work at laboratories, animal welfare inspections, and wildlife damage management activities, without diverting fiscal resources from operations to cover these costs.

APHIS continued to take steps to better utilize space within its facilities and offices in FY 2018. For example, the agency continued to pursue a space transformation in the Raleigh hub with a pending lease award in early FY 2019. To maximize the available space at this hub, APHIS is incorporating a number of space management practices in accordance with USDA's design guidelines such as 36 square foot workstations, 120 square foot offices, and several small meeting areas. APHIS is also finalizing a space utilization review of the Riverdale hub. APHIS also supported the Department's goals of consolidation and colocation. For example, the agency collocated its New Mexico office with the Forest Service office in Albuquerque, New Mexico. Even with these efforts, the APHIS footprint increased overall by 27,399 square feet in FY 2018 due to establishing offices in support of emergency programs to address European cherry fruit fly and spotted lanternfly.

APHIS will continue efforts to strategically manage its space portfolio in FY 2020.

Multi-Agency Coordination (Mac) Group

Selected Examples of Recent Progress in Multi-Agency Coordination Group:

Huanglongbing

Huanglongbing (HLB) is a serious citrus disease that threatens U.S. citrus production valued at approximately \$3.3 billion in 2017 (National Agricultural Statistics Service). HLB is widespread in Florida resulting in higher production costs, lower yields, and lower productive acreage. Additionally, the disease is present in all of Texas' citrus producing areas and residential areas of Los Angeles, Orange, and Riverside Counties in California. HLB's insect vector, the Asian citrus psyllid (ACP), is widespread in urban areas in southern California, threatening the State's more than \$2 billion citrus industry. ACP is also present in Arizona, Nevada, Texas, Louisiana, Alabama, Georgia, Florida, and South Carolina. APHIS established the HLB Multi-Agency Coordination (MAC) response framework in December 2013 to help address the citrus industry's immediate and long-term needs in dealing with this devastating disease. In addition to APHIS, the MAC is comprised of representatives from USDA's Agricultural Research Service, National Institute of Food and Agriculture, and Office of Pest Management Policy; the Environmental Protection Agency; State departments of agriculture in Florida, Arizona, California, and Texas; citrus research organizations in California and Texas; and citrus industry organizations in Florida, California, and Texas. Since FY 2014, the HLB MAC group has funded a total of 59 projects carried out by State cooperators, universities, private companies, and Federal agencies. The projects have focused on strategies for vector control, therapies for infected trees, sustainability of new plantings, early detection technologies, best management practices for citrus groves, and support for the development of HLB-resistant citrus varieties.

In FY 2018, the HLB MAC funded 15 new projects, and supported several meetings convened to enhance research efforts on finding a cure for HLB. In FY 2018, the HLB MAC coordinated research efforts between citrus research funding organizations, enhanced collaboration between citrus breeders, and addressed barriers to efficient advancement of research programs. Additionally, HLB MAC continued to support projects on therapeutics for HLB-infected trees, including additional work on thermotherapy and field testing of new chemicals. HLB MAC also supported projects that field tested potentially resistant or tolerant citrus varieties. Early detection technologies for HLB remain a focus for the HLB MAC, especially in California. The HLB MAC supported projects to train HLB detector dogs and conducted a review of early detection technologies. Control of ACP continues to be a top priority for the HLB MAC. In FY 2018, the HLB MAC provided funding for projects on biocontrol efforts, attract and kill technologies, and completed a review of impacts of biocontrol on ACP populations.

Over the last several years, HLB MAC funded projects have:

- Tripled the production and release of ACP-killing wasps, from 4 million to 12 million per year. These wasps have reduced ACP populations by more than 50 percent in Texas and as much as 99 percent around California release sites.

- Removed nearly 6,000 acres of abandoned groves in Florida through a demonstration project showing that eliminating uncontrolled ACP habitat can help prevent pest and disease spread and prompting State legislation to incentivize further removal of abandoned groves.
- Trained and field tested canines to detect HLB in commercial and residential settings and will begin field testing the dogs in California in FY 2019.
- Applied thermotherapy to more than 3 million HLB-infected trees in Florida to extend trees' productive life by promoting new growth and slowing the progress of the disease.
- Helped move thermotherapy technology to market by delivering a prototype machine to growers who used the design to build their own machines and private companies who improved the technology and now offer thermotherapy services.
- Developed soil acidification technology that could be used on a broad scale to lower the pH of infected tree roots, helping to improve overall tree health and production.
- Saved growers from investing in ineffective technologies by researching and disproving claims that adding microbials to grove soil would improve tree growth.
- Field tested two antimicrobial treatments to improve the overall health and quality of infected trees. Florida then used that data to obtain a Section 18 exemption from the Environmental Protection Agency, allowing them to use antimicrobials on an emergency basis.
- Initiated a rapid propagation project to accelerate field testing of 35 varieties of HLB-tolerant mandarin and sweet orange trees, which will make them available 2 years earlier than traditional propagation practices.

Growers are using one out of every three HLB MAC-funded shovel-ready technologies today. The 2017 hurricanes interrupted what had promised to be the first increase in production in Florida in a decade as growers have implemented HLB MAC funded tools in their grove management. Early signs from the 2018 growing season are indicating a recovery from Hurricane Irma and an increase in production. APHIS will continue working closely with partners in industry, private research, state department of agriculture, and other government agencies to support continued development of tools to address HLB.

Emergency Activities Funded by Transfers From Commodity Credit Corporation

Selected Examples of Recent Progress in Transfers from Commodity Credit Corporation

Avian Influenza

In FY 2018, APHIS spent approximately \$1.6 million in Commodity Credit Corporation funds to finalize payments to poultry producers impacted by the avian influenza (AI) outbreaks that began in 2015. During the outbreaks and responses, approximately 50 million birds were affected and either died from the disease or were euthanized. APHIS paid indemnity for commercial flocks affected by all highly pathogenic avian influenzas and for some low pathogenic forms of the disease when they posed a high risk of further mutation and impact on the flock. The Agency's actions in this emergency program served to safeguard U.S. poultry and egg producers and reduce the effects of AI on agriculture and public health, while also enhancing readiness for other animal health emergencies.

Bovine Tuberculosis

In FY 2018, APHIS spent \$2.5 million in Commodity Credit Corporation funds (CCC) on tuberculosis (TB) eradication activities. In FY 2018, APHIS identified four TB affected beef herds: two in Michigan, one in Nebraska, and one in South Dakota. APHIS identified one TB affected dairy herd in Texas. APHIS used CCC funds to conduct test-and-remove protocols and depopulation activities in accordance with each herd's management plan. While the two Michigan herds were depopulated with State funding, all other herds were depopulated using Federal CCC funds.

The detection of these herds demonstrates the effectiveness of APHIS' surveillance system. To respond to TB detections, APHIS works closely with State animal health officials to quickly identify any cattle that may have come into contact with the infected herds, and conduct thorough trace back investigations. In addition, the States work closely with the herd owners involved, as well as the State dairy industry, to ensure the disease is quickly contained, and affected owners can return to normal business practices as soon as possible.

Spotted Lanternfly

Spotted lanternfly (SLF) is an invasive insect that damages a wide range of plants by feeding on them and depositing a sticky residue that facilitates growth of sooty mold and reduces photosynthesis, the process by which plants use sunlight to create foods, ultimately reducing the nutrients available to the plants. Crops at risk from SLF damage include grapes, apples, and hops, among others. SLF can move on non-agricultural pathways, such as rail cars and truck trailers as well as numerous materials that may be moved on those conveyances and even in private vehicles.

In FY 2018, APHIS and cooperators used \$11.01 million in emergency funds to address an SLF infestation in the southeast portion of Pennsylvania (which extends into New Jersey Maryland and Delaware). The program used appropriated funds and funding available under Plant Pest and Disease Management and Disaster Prevention Program to address a smaller infestation in Virginia and to conduct surveys in other states. Additional states have reported isolated detections of the pest but have not detected any reproducing populations.

APHIS and the Pennsylvania Department of Agriculture developed an area-wide management strategy for SLF that includes control, survey, and outreach activities. The area-wide management strategy includes conducting visual detection surveys of all life stages of SLF on tree of heaven trees during fall and winter months at high-risk locations near infested areas. High-risk locations include grape vineyards, tree fruit orchards, wholesale and retail distributors of natural and artificial outdoor products, energy and transportation right-of-ways, construction companies and contractors, landscapers, logging operations and firewood dealers, and locations with high densities of tree of heaven. In FY 2018, APHIS conducted visual surveys at more than 34,000 points (each survey point consists of five or more trees in a given location) to determine the outer edge of the infestation. Following the visual surveys, APHIS assessed 4,187 properties covering 22,975 acres and completed treatments on 339 properties covering more than 13,000 trees. APHIS will evaluate the effectiveness of the control strategy through tracking population levels in summer 2019.

Farm Bill

The Agricultural Act of 2014 consolidated two of APHIS' Farm Bill programs under Section 10007: Plant Pest and Disease Management and Disaster Prevention Program (formerly Section 10201 of the Food, Conservation, and Energy Act of 2008) and the National Clean Plant Network (NCPN) (formerly Section 10202 of the Food, Conservation, and Energy Act of 2008). This authority was codified in Section 7721 of the Plant Protection Act. For FY 2018, the Farm Bill provided approximately \$75 million for the consolidated program. These funds are subject to the sequester of mandatory funds (\$4.95 million in FY 2018).

Through the program, APHIS funds projects for early plant pest detection and surveillance, identification and mitigation of plant pests and diseases, and technical assistance in the development and implementation of audit-based certification systems and nursery plant pest risk management systems. Since 2014, APHIS has funded more than 1,849 projects in 50 States and 3 U.S. territories with approximately \$228 million, strengthening the Agency's and cooperators' abilities to protect U.S. agriculture and natural resources from foreign pest threats. In addition, the NCPN provides reliable sources of pathogen-free planting stock of high-value specialty crops. Since its inception in 2008, the NCPN, through its Cooperative Agreements Program, has provided about \$44 million in support of 39 initiatives at 28 clean plant centers or programs and in 19 States and U.S. Territories. These initiatives span commodities ranging for fruit trees, grapes, citrus, berries, hops, sweet potato, and roses.

Plant Pest and Disease Management

APHIS and cooperators have identified six major strategies (the first with two sub-goals) to implement Plant Pest and Disease Management efforts: 1a) enhancing plant pest/disease analysis; 1b) enhancing plant pest survey; 2) targeting domestic inspection activities at vulnerable points; 3) enhancing pest identification tools and technology; 4) developing programs to safeguard nursery production; 5) enhancing outreach and education; and 6) enhancing mitigation capabilities. APHIS funded 466 projects in FY 2018, supporting a variety of Federal, State, academic, Tribal, and private entity stakeholders.

Enhance Plant Pest/Disease Analysis

Under this goal, APHIS supports projects that compile, synthesize, or evaluate data to inform or enhance risk and pathway analysis, surveillance methodology, or resource prioritization. Examples include the development of analytical models to identify and prioritize exotic pests for survey and response, enhancement of assessment models on the impact of exotic mollusks, development of integrative spatiotemporal risk maps of exotic fruit flies, and evaluating the risk of spread of *Phytophthora ramorum* through population genetic analysis. In FY 2018, the program provided approximately \$2.2 million for 27 projects in this goal area.

Enhance Plant Pest Survey

Under this goal, APHIS supports surveys for multiple, high-risk pests in port environs, across pathways of introduction, and in specialty crop commodities nationally. These surveys protect and help small growers and nursery owners avoid control costs through a more rapid and thorough detection of pests that threaten their operations. One key project is the National Survey Supply Program that oversees timely procurement and delivery of quality survey supplies, such as traps and lures, to APHIS and State cooperators. In FY 2018, the National Survey Supply Program used Farm Bill funds to distribute more than 1.8 million different plant pest trap and lure units to all 50 states and 3 territories; and executed approximately 350 different trap and lure procurement orders. The orders

consisted of more than 100 different products to support the various detection and surveys that APHIS and State Cooperators conduct. These surveys complement those the Cooperative Agricultural Pest Survey conduct, and have expanded the number and scope of pest survey activities across the United States as well as help demonstrate our country's freedom from certain high-risk pests. In FY 2018, this program supported 193 multi-pest surveys and 276 unique pests targeted for survey in 48 States and one territory. These included commodity surveys of apple, grape, stone fruit, palm, solanaceous, small fruit and berries, and other orchard crops, as well as surveys for Asian defoliators, exotic woodborers, bark beetles and other forest pests, cyst nematodes, mollusks, and pathway surveys covering multiple agricultural systems. Overall, the program provided approximately \$14.4 million for 162 projects in this goal area, including approximately 90 commodity- and taxon-based surveys targeting 80 different pests.

Targeting Domestic Inspection Activities at Vulnerable Points

Under this goal, APHIS supports domestic inspection activities at high risk sites (e.g., warehouses and parcel facilities), inspects regulated articles moving interstate, and uses trained canine detection teams to improve detection capabilities. Developing these cooperative efforts with State agriculture regulatory agencies helps minimize impacts to producers and distributors of agricultural commodities. In FY 2018, the program continued to support canine team efforts in California where 14 teams work at Express Couriers and U.S. Postal Service offices in 10 counties, and in Florida where 6 teams work at Express Couriers in 4 counties and are cross trained to detect giant African snails. With their keen sense of smell, dogs can detect hidden agricultural products at an accuracy rate higher than 90 percent. The program uses canine teams to enhance capacity for early detection and better response to exotic pests found during surveys; increases liaison between State and Federal cooperators by reviewing, developing, and implementing educational programs; provides additional resources at high-risk areas within the State for inspection; and benefits inspections at parcel service locations to enhance interdiction efforts. Overall, the program provided approximately \$5.75 million for four projects in this goal area in FY 2018.

Enhance Pest Identification Tools and Technology

Under this goal, APHIS supports the ongoing development of improvements in pest identification and detection. This includes improved identification capacity and taxonomic understanding of groups of organisms, taxonomic support for surveys targeting high consequence pests, and the development of pest detection technology. Through this goal area, the program supports the Regional Identification Center for Bark Beetle and other wood boring beetles in Oregon, the Regional Pulse Crop Diagnostic Laboratory in Montana, and the Western States Lepidoptera Diagnostic Center. Other projects include training for state diagnosticians at National Plant Diagnostic Network laboratories, Fungal specimen imaging as a diagnostic reference tool for rusts and smuts, and the effort to enhance taxonomic and molecular diagnostics capacity for fruit flies, among others. APHIS spent approximately \$6.2 million on 75 projects in support of this goal in FY 2018.

Developing Programs to Safeguard Nursery Production

Under this goal, APHIS supports projects to develop science-based best management practices and risk mitigation practices to exclude, contain, and control regulated pests from the nursery production chain, and developing and harmonizing audit-based nursery certification programs. These activities help small producers and distributors establish best management practices for mitigating pest risks, reducing operational costs, and enhancing the value of nursery stock they produce. Examples of projects funded in FY 2018 include continued support for the National Ornamentals Research Site at Dominican University of California, audit training for State and Federal personnel on Plant Pest Management Accreditation, an assessment of the virus status of legacy registered apple rootstock stoolbeds under certification, and harmonized systems approaches for nursery certification in the Pacific Northwest. The program also supported the Systems Approach to Nursery Certification (SANC) pilot program. SANC brings together the National Plant Board and nursery industry groups to promote audit-based programs for nursery stock to reduce the risks of pest spread. The program provided approximately \$2.1 million for 21 projects in this goal area in FY 2018.

Enhancing Outreach and Education

Under this goal, APHIS works to engage the public in early detection efforts by strengthening existing volunteer networks. APHIS emphasizes efforts that can lead to behavior changes among the public and the regulated community to prevent the introduction or spread of high-consequence pests into and throughout the United States. FY 2018 projects in this goal area include raising invasive species awareness among the Kaibab Paiute tribal lands, supporting outreach campaigns informing the public of exotic pest threats associated with the movement of firewood, and a variety of programs across several States designed to engage youth in invasive species reporting efforts. Overall, the program provided approximately \$3.75 million for 64 projects in this goal area in FY 2018.

Enhance Mitigation Capabilities

Under the goal of enhancing mitigation capabilities, APHIS provides technical assistance prior to, during, and immediately following a plant pest outbreak, develops new mitigation tools and strategies, and increases emergency preparedness through the development of New Pest Response Guidelines and Incident Command System training. Some of these efforts provided support for developing new methods or treatments for economically significant pests including exotic fruit flies, giant African snail, and Coconut Rhinoceros beetle. These projects also include an effort to explore the use of unmanned aircraft for sterile insect technique release, survey and treatment in response to invasive plant pests, including the Asian Long-horned Beetle. FY 2018 projects also included continued support for the coordinated response to spotted lanternfly, a plant pest detected in Pennsylvania for the first time in FY 2014. It threatens grapes, apples, and stone fruit, as well as more than 70 types of ornamental and woody trees. In FY 2018, Federal, State, and local officials in Pennsylvania continued efforts using tree-banding, egg scraping, pesticide applications, and host treatments and removals to control the pest. APHIS and cooperators are also continuing development of biological control programs against spotted lanternfly and other methods that may be crucial for long-term management of the pest. The program expanded activities to Delaware, New Jersey, and Virginia due to population finds in those States in FY 2018. APHIS spent approximately \$28.5 million on 113 projects in this goal area in FY 2018.

National Clean Plant Network (NCPN)

In FY 2018, APHIS used \$6.5 million in Section 10007 funds to provide NCPN support to qualified clean plant centers through a cooperative agreements program. The application process allowed stakeholders to offer input into projects proposed for funding through pre-proposals, which are designed to help clean plant centers prioritize and harmonize their resourcing requests. As a result, APHIS entered into 26 cooperative agreements with clean plant centers and related entities in 16 States and one U.S. territory (Puerto Rico). The clean plant centers that receive NCPN funding are using the resources to: 1) diagnose for harmful pathogens that cause disease in covered specialty crops; 2) apply therapeutic measures to eliminate these pathogens; 3) establish plantings of clean plant ‘starter’ material and make this material available to nurseries and growers; 4) work with nurseries and growers in education/outreach programs to communicate the economic value to industry of using clean nursery stock; 5) advance quality management initiatives to further strengthen confidence in program processes and products, and 6) engage in the process of establishing and governing a network of collaborative clean plant centers. These activities will result in clean plant centers providing additional sources of healthy planting stock for fruit trees, grapes, citrus, berries, and hops -- as well as sweet potato and roses. This healthy planting stock will be available to nurseries, growers, breeders, and others, ensuring that they have access to clean plant material necessary to sustain their businesses, maintain productivity, and improve the quality of their products.

Since the program’s inception, the clean plant centers on an annual basis have helped the following commodities:

Fruit Trees

Maintain approximately 2,250 clean fruit tree accessions in foundations (blocks of pathogen-tested plant materials) that have delivered more than 500,000 cuttings, scions, and plantlets as well as more than 1.7 million buds to nurseries and growers.

Grapes

Maintain approximately 1,000 selections of clean grapevine accessions in foundations and distribute more than 700,000 clean grape-wood cuttings, buds, plants, or special seed to industry.

Berries

Diagnose and clean approximately 75 new berry accessions annually and maintain clean plant foundations that provide mother plants to industry that have produced nearly 30 million clean berry plants annually.

Citrus

Maintain approximately 1,000 clean citrus tree accessions in foundations and deliver ‘starter material’ to industry that has resulted in more than 60 million clean citrus trees over the past 9 years.

Hops

Maintain more than 50 clean hop selections in foundations that are used to accommodate about 30 percent of the world’s need for clean hops. The program has distributed more than 5,000 clean propagative units to industry; each unit can be expanded rapidly to provide thousands of plants for planting annually.

Sweet potato

Add approximately 40 new sweet potato accessions annually to existing foundations, with 170 accessions currently available for use by industry in addition to numerous heirlooms and introductions maintained. Clean plant centers delivered more than 200,000 clean plants to industry in 2017-2018.

Roses

Continued advanced testing of approximately 600 rose selections currently maintained in foundations, with 6 acres currently housing rose clean plant material with a goal of reaching an industry need of 15 acres in foundational material.

Table APHIS-17. Summary of Key FY 2018 CCC Funded Emergency Activities

Emergency/Activity	Total Available ^a	Total Obligations
Avian Influenza	\$100,163,552	\$1,583,843
Bovine Tuberculosis	24,040,797	2,583,237
Novel Enteric Coronaviruses	3,889,587	2,143,117
Spotted Lanternfly	17,525,863	11,011,247
Farm Bill	70,269,649	66,105,054
Total	<u>\$215,889,448</u>	<u>\$83,426,498</u>

^a Total Available includes account recoveries, where applicable.

ACCOUNT 2: BUILDINGS AND FACILITIES**LEAD-OFF TABULAR STATEMENT***Table APHIS-18. Lead-Off Tabular Statement*

Item	Amount
2019 Annualized Continuing Resolution.....	\$3,175,000
Change in Appropriation	-466,000
Budget Estimate, 2020	2,709,000

APPROPRIATIONS LANGUAGE

The appropriations language follows (new language underscored; deleted matter enclosed in brackets):

For plans, construction, repair, preventive maintenance, environmental support, improvement, extension, alteration, and purchase of fixed equipment or facilities, as authorized by 7 U.S.C. 2250, and acquisition of land as authorized by 7 U.S.C. 428a, \$2,709,000, to remain available until expended.

PROJECT STATEMENT*Table APHIS-12. Project Statement (thousands of dollars, staff years (SY))*

Item	2017 Actual	SY	2018 Actual	SY	2019 Estimate	SY	Inc. or Dec.	SY	2020 Budget	SY
Discretionary Appropriations:										
Buildings and Facilities.....	\$3,175	-	\$3,175	-	\$3,175	-	-\$466	-	\$2,709	-
General Provision 743 Fruit Fly Rearing Facility ..	47,000	-	-	-	-	-	-	-	-	-
Total Appropriations	50,175	-	3,175	-	3,175	-	-466	-	2,709	-
Recoveries.....	17	-	25	-	-	-	-	-	-	-
Balance Available, SOY	755	-	49,149	-	43,574	-	-325	-	43,249	-
Total Available.....	50,947	-	52,349	-	46,749	-	-791	-	45,958	-
Balance Available, EOY	-49,149	-	-43,574	-	-43,249	-	+42,456	-	-793	-
Total Obligations.....	1,798	-	8,776	-	3,500	-	+41,665	-	45,165	-

JUSTIFICATION – BUILDINGS AND FACILITIES

(1) A decrease of \$466,000 for the Buildings and Facilities account (\$3,175,000 available in FY 2019).

The Buildings and Facilities (B&F) program addresses APHIS' facility needs in support of the Agency's mission to protect the health and value of agriculture and natural resources nationwide. The program's goal is to systematically address the Agency's needs for maintaining and repairing existing facilities, as well as constructing new facilities. APHIS' Facility Condition Index (FCI) drives the projects; the FCI is the sum of the costs of needed repairs divided by the replacement value of the facility. APHIS strives to maintain an FCI for facilities assessed of less than 0.10, meaning that the cost to make repairs is less than 10 percent of the estimated replacement value for the facilities.

This program serves a vital role in maintaining APHIS' facilities so that employees can continue to carry out their responsibilities in a safe and efficient manner. The commitment to maintain the condition and functionality of facilities is an ongoing process that demands significant management of capital resources. The program manages the implementation of scheduled facility improvements, security, construction, and maintenance. Contractors perform inspections and tests to substantiate that the supplies or services furnished under the contract conform to contract requirements. In addition, a design firm validates that the work aligns with approved plans and specifications. APHIS typically identifies on-site certified personnel to perform the contracting services. The Agency's engineering staff attends on-site construction progress meetings, and APHIS collects performance data through contractor reports and on-site verification.

In FY 2018, APHIS awarded 39 design/construction tasks associated with projects at a cost of approximately \$3.9 million and completed 18 construction projects. Approximately 40 percent of these repairs were major renovations and 60 percent were minor repairs. Among these projects were the modernization of an agency facility in Gainesville, Florida; deconstruction of a building in Ames, Iowa; and replacing a laboratory chiller at Moore Air Base in Edinburg, Texas.

Without the B&F program, APHIS would be unable to centrally coordinate and prioritize these types of projects. As a result, necessary maintenance and repairs to facilities would not occur unless funded at the expense of an Agency operational activity. This would create program delays, possible environmental consequences, and noncompliance with State and local laws and codes. In addition, it would accelerate the pace of the deferred maintenance backlog and associated cost, which currently exceeds \$88 million. Many of APHIS' facilities have specialized functions that support various Federal, State, and local government programs, stakeholders, and customers. B&F projects ensure that APHIS' programs can be conducted at safe, secure, sound, sustainable, and high-performance facilities that support APHIS' mission.

This program supports USDA's goal to ensure USDA programs are delivered efficiently, effectively, and with integrity. In FY 2020, the Agency will use funds to continue conducting the necessary maintenance, repairs, and renovations identified during the facility condition assessments at approximately 13 APHIS facilities.

Approximately 99 percent of the B&F funding supports indefinite delivery, indefinite quantity contracts (e.g., architect and engineering support) and construction contracts. These contracts, which provide for an indefinite quantity of supplies or services during a fixed time period, help streamline the contract process and expedite service delivery. The remaining funds support operating costs.

A) Reduction in funding for maintenance and repairs (-\$466,000)

At the requested level, APHIS will reduce funding available for the maintenance and repair of its facilities. The program will continue to centrally coordinate and prioritize facility improvement projects using the remaining available funds.

GEOGRAPHIC BREAKDOWN OF OBLIGATIONS AND STAFF YEARS

Table APHIS-20. Geographic Breakdown of Obligations and Staff Years (thousands of dollars, staff years (SY))

State/Territory	2017 Actual	SY	2018 Actual	SY	2019 Estimate	SY	2020 Budget	SY
Arizona.....	\$32	-	-	-	\$86	-	\$90	-
California	-	-	-	-	71	-	75	-
Colorado.....	90	-	\$25	-	100	-	75	-
Florida.....	79	-	-	-	540	-	400	-
Idaho	34	-	194	-	-	-	-	-
Iowa	1,195	-	32	-	801	-	736	-
Maryland.....	88	-	132	-	90	-	100	-
Massachusetts.....	47	-	1,700	-	46	-	46	-
Michigan	-	-	12	-	-	-	-	-
Mississippi	-	-	-	-	71	-	71	-
Montana	-	-	20	-	-	-	-	-
New York.....	102	-	-	-	238	-	250	-
North Carolina.....	19	-	-	-	-	-	-	-
South Carolina.....	-	-	33	-	-	-	-	-
Texas.....	112	-	6,566	-	1,457	-	43,322	-
Utah.....	-	-	41	-	-	-	-	-
Wyoming.....	-	-	20	-	-	-	-	-
Obligations.....	1,798	-	8,775	-	3,500	-	45,165	-

CLASSIFICATION BY OBJECTS

Table APHIS-21 Classification by Objects (thousands of dollars)

Item No.	Item	2017 Actual	2018 Actual	2019 Estimate	2020 Budget
25	Other Objects:				
	Other contractual services.....	\$1,798	\$8,775	\$3,500	\$45,165
	Total Direct Obligations.....	1,798	8,775	3,500	45,165

STATUS OF PROGRAMS

The Buildings and Facilities (B&F) appropriation funds major, nonrecurring, construction projects in support of program activities, and recurring construction, alterations, and repairs of existing facilities. These projects and activities allow other programs and employees to focus on APHIS' mission of protecting the health and value of agriculture, and natural resources nationwide. The goal of the B&F program is to systematically address the Agency's needs for maintaining and repairing existing facilities, as well as constructing new facilities. APHIS assigns each facility with a Facility Condition Index (FCI), which is the sum of the costs of needed repairs divided by the replacement value of the facility, and uses the FCI scores to determine each year's projects. APHIS strives to maintain an FCI for facilities assessed of less than 0.10, meaning that the cost to make repairs is less than 10 percent of the estimated replacement value for the facilities.

This program serves a vital role in maintaining APHIS' facilities so that employees can carry out their responsibilities safely and efficiently. Maintaining the condition and functionality of these facilities is an ongoing process that demands significant management of capital resources. If the B&F program were not funded, APHIS would redirect resources from program activities for necessary maintenance and repairs to facilities. This would accelerate the pace of the deferred maintenance backlog and associated cost, which currently exceeds \$96 million. Many of APHIS' facilities have specialized functions that support various Federal, state, and local government programs, as well as stakeholders and customers. B&F projects ensure that APHIS' programs can be conducted at safe, secure, sound, sustainable and high-performance facilities that support the Agency's mission.

APHIS' B&F program maximizes its efficiency through comprehensive construction projects. The Agency spends approximately 99 percent of its funding on indefinite delivery, indefinite quantity, and construction contracts. These contracts, which provide for an indefinite quantity of supplies or services during a fixed time period, help streamline the contract process and expedite service delivery. Remaining B&F funds support information technology projects (i.e., Facilities Capital Planning and Management software).

Facilities Condition Assessment

In FY 2000, APHIS began a comprehensive Facilities Condition Assessment program to: better understand the condition of facilities, strategically maintain them by identifying deficiencies and funding needs, stabilize the facilities repair backlog, predict maintenance needs, and implement financial management and capital asset improvement efforts. The consulting firm tasked with assessing APHIS' facilities has an automated process for assessing the relative condition of assets, and facilitating comparisons both within and among facilities. The consulting firm calculates an FCI for each facility by program and Agency. At the end of FY 2018, the FCI for the 47 facilities assessed was 0.13, meaning the cost to correct currently identified and anticipated deficiencies is 13 percent of the estimated replacement value for the 47 facilities. Of these 47 facilities, 26 scored above a 0.10 and 21 scored below a 0.10. The Agency strives to maintain an FCI below 0.10.

Summary of Current Projects

The B&F program implements scheduled improvements, and conducts security, construction, and maintenance activities. Contractors perform inspections and tests to substantiate that the supplies or services furnished under the contract conform to contract requirements. In addition, a third party design firm validates that the work aligns with approved plans and specifications. APHIS typically identifies on-site certified personnel to perform the Contracting Officer's Representative services. The Agency's engineering staff attends construction progress meetings in person, on-site, or virtually and APHIS collects performance data through contractor reports and on-site verification.

As of October 2018, APHIS' B&F Appropriation supports 12 active projects. In FY 2018, APHIS awarded 39 design/construction tasks associated with projects at a cost of approximately \$3.9 million, and completed 18 construction projects. Approximately 40 percent of these repairs were major renovations and 60 percent were minor repairs. Among these projects were the modernization of an agency facility in Gainesville, Florida; deconstruction of a building in Ames, Iowa; and replacing a laboratory chiller at Moore Air Base in Edinburg, Texas.

National Wildlife Research Center (NWRC) Field Station Modernization Project, Gainesville, Florida

In FY 2018, APHIS completed modernizations to the laboratory at the NWRC Florida Field Station. These updates expanded space, infrastructure, and capacity to support activities related to reducing damages from feral swine and emerging research needs. The agency completed renovations that addressed deficiencies (e.g., asbestos-containing materials, laboratory exhaust systems, fire alarm and suppression) and brought the facility into compliance with the Americans with Disability Act, and modernized business practices within the facility. The project began in FY 2013 with an architectural and engineering firm developing a program of requirements. The program awarded a contract in FY 2014, and work was completed in FY 2018.

National Centers for Animal Health, Out Building Deconstruction, Ames, Iowa

APHIS deconstructed Buildings #404, 405, 413, 414, 415, and 416 at the National Centers for Animal Health. APHIS awarded the deconstruction contract in FY 2017. Deconstructing these unused buildings supports the government-wide goal of reducing the Federal real property footprint. The full deconstruction was complete during the fourth quarter of FY 2018.

General Provision 743

The FY 2017 Consolidated Appropriations Act provided \$47 million to APHIS, through a General Provision, within the Buildings and Facilities account for fruit fly rearing facilities. APHIS will use the funding to replace the Mexican fruit fly (Mexfly) rearing facility at Moore Air Base, in Edinburg, Texas. The current facility is more than 30 years old and, despite upgrades, it often incurs production losses due to aging infrastructure and building environmental problems that prevent the facility from meeting the capacity needed for sterile Mexfly releases. High temperatures and humidity in the facility facilitate the growth of mold in the heating, ventilation, and air conditioning system, and the interior of the building, including doors, door hardware, flooring, ceilings, air registers, and other hardware, is in need of repair or replacement. Once complete, the new facility will produce and rear sterile Mexflies, encompassing their entire lifecycle up to releases in the field. The proposed building design would increase size and capacity of the facility. APHIS plans to increase sterile Mexfly production from a current maximum of 150 million sterile Mexflies per week to approximately 400 million per week, the amount needed to exclude this pest from the Lower Rio Grande Valley, protecting Texas and other vulnerable areas of the United States. APHIS has developed a program of requirements for the facility and engaged the United States Army Corps of Engineers (ACOE) to manage the construction process through an interagency agreement. In FY 2018, APHIS provided approximately \$4.5 million to ACOE to award and administer a contract for the design of the new facility. APHIS also used \$200,000 for design and production of equipment for use at the new facility. USACE awarded the design contract on October 1, 2018. The design phase will take approximately one year.

AGENCY-WIDE PERFORMANCE**SUMMARY OF PERFORMANCE**

The Secretary of Agriculture established the Animal and Plant Health Inspection Service (APHIS) on April 2, 1972, under the authority of the Reorganization Plan No. 2 of 1953 and other authorities. The mission of the agency is to safeguard the health, welfare and value of American agriculture and natural resources. APHIS employs a broad range of programs and unique authorities to deliver this mission. Together with its stakeholders, APHIS promotes the health of animal and plant resources to ensure abundant agricultural products and services for U.S. customers. APHIS monitors and responds to potential diseases of livestock and wildlife, invasive species, suspected acts of agricultural bio-terrorism, and conflicts between humans and wildlife as it strives to assure its stakeholders that it is on guard against the introduction or re-emergence of animal and plant pests and diseases that could limit agricultural production. The agency also balances a regulatory system that safeguard agriculture while fostering innovative research and development in the field of biotechnology. In addition, APHIS has protected the welfare of millions of animals used in research, exhibition, and the pet trade as well as those transported in commerce through inspection, education, and enforcement efforts.

APHIS contributes to three of the Department's Strategic Goals. The following table summarizes the results for the Departmental Key Performance Indicators (KPIs) for which APHIS is responsible.

Table APHIS - KPI-Preventing and mitigating spread of agricultural pests and diseases

KPI	2017 Actual	2018 Actual	2018 Target	2018 Result	2019 Target	2020 Target
Number of hours it takes to mobilize resources once it is determined that a Federal emergency response is needed to manage an agricultural outbreak (target of within 24 hours)	24 hours	24 hours	24 hours	Met	24 hours	24 hours
Percentage of high-risk plant pests for which early detection surveys are conducted	96%	96%	93%	Exceeded	95%	95%
Number of National Animal Health Laboratory Network (NAHLN) laboratories that have the capability to electronically message veterinary diagnostic test results to USDA	31	43	35	Exceeded	Retired	Retired

SELECTED PAST ACCOMPLISHMENTS TOWARD THE ACHIEVEMENT OF THE KPI OUTCOMES

APHIS mobilized resources and logistics support for the response to the outbreak of virulent Newcastle disease (vND) in California within 24 hours of determining that a Federal response was needed, helping to prevent additional disease spread and eradicate the disease more quickly. Virulent Newcastle disease is a contagious and fatal viral disease affecting the respiratory, nervous and digestive systems of birds and poultry and was confirmed in California on May 18, 2018. This was the first case of vND in the United States since 2003. As of December 2018, the disease has been found in back yard poultry only and not in the U.S. commercial poultry. APHIS is in the process of reviewing the response to identify opportunities for program improvements.

APHIS and cooperators targeted a total of 128 high-risk plant pests of national concern for survey in corn, oak, pine, small grains, soybean, and nursery crop commodities, as well as exotic wood boring bark beetles and cyst nematodes, among others. These pests represent 96 percent of the total target high-risk plant pests suggested for survey in FY 2018. Because of the surveys, APHIS demonstrated that none of the targeted high-risk plant pests were present in the United States.

In working with Purdue University, APHIS enhanced its current performance data tracking system by creating a tool to analyze the plant pest detection activities and related data. The web-based platform allows program cooperators access to the information in real-time. This enables ongoing evaluation of the data by all partners. Previously, the data was maintained in an extensive spreadsheet format and was not accessible to all cooperators.

NAHLN participants continued to develop their capabilities for electronic messaging of veterinary diagnostic test results to APHIS, increasing the number of laboratories with this capability from 31 in FY 2017 to 43 in FY 2018. Having the test results electronically transferred from the NAHLN labs directly into APHIS data repositories in real-time allows the agency to make informed decisions related to threat response or risk mitigation activities.

SELECTED ACCOMPLISHMENTS EXPECTED AT THE 2020 PROPOSED RESOURCE LEVEL

APHIS will continue to maintain and deploy countermeasures against the most damaging animal diseases within 24 hours and exercise emergency response capabilities with States, territories, and Tribal partners. In FY 2020, the agency will schedule tabletop exercises and trainings in the deployment of resources and response preparedness, ensuring that the agency its partners are prepared to respond quickly and effectively to animal health events.

APHIS will conduct surveys in 50 States and 3 territories for at least 95 percent of high-risk plant pests identified as having pathways into the United States. APHIS' Pest Detection program personnel will evaluate and analyze additional exotic pests, develop survey methodology, and develop pest lists, datasheets, and survey manuals in support of the 2020 National Pest Surveillance Guidelines. States will use this guidance to plan surveys in FY 2020, allowing for the continued documentation of the presence or absence of plant pests and diseases of Federal regulatory significance in the United States and preserving economic opportunities for farmers (i.e., interstate commerce and international trade).

2018 President's Budget
Animal and Plant Health Inspection Service

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ANIMAL AND PLANT HEALTH INSPECTION SERVICE

Purpose Statement

The Secretary of Agriculture established the Animal and Plant Health Inspection Service (APHIS) on April 2, 1972, under the authority of Reorganization Plan No. 2 of 1953 and other authorities. The mission of the Agency is to protect the health and value of American agriculture and natural resources.

Together with its stakeholders, APHIS promotes the health of animal and plant resources to facilitate their movement in the global marketplace and to ensure abundant agricultural products and services for U.S. customers. APHIS strives to assure its stakeholders that it is on guard against the introduction or re-emergence of animal and plant pests and diseases that could limit agricultural production and damage export markets. At the same time, APHIS also monitors and responds to potential acts of agricultural bio-terrorism, invasive species, diseases of wildlife and livestock, and conflicts between humans and wildlife. The Agency also manages and resolves sanitary (animal) and phytosanitary (plant) trade barriers and addresses certain issues relating to the humane treatment of animals. Finally, APHIS ensures that biotechnology-derived agricultural products are safe for release in the environment.

APHIS' mission is carried out using three major areas of activity, as follows:

Safeguarding and Emergency Preparedness/Response

In addition to APHIS' domestic monitoring, APHIS monitors plant and animal health throughout the world and uses the information to set effective agricultural import policies to prevent the introduction of foreign plant and animal pests and diseases. APHIS and the Department of Homeland Security cooperate to ensure that these policies are enforced at U.S. ports of entry. These policies prevent the entry of many invasive pests, including crop, pollinator, woodland, and livestock pests. APHIS also develops and conducts pre-clearance programs to ensure that foreign agricultural products destined for the United States do not present a risk to U.S. agriculture. The Agency engages in cooperative programs to control pests of imminent concern to the United States and to strengthen foreign plant protection and quarantine organizations. APHIS certifies plants and plant products for export to other countries and regulates imports and exports of designated endangered plant species.

Should a pest or disease enter the United States, APHIS works cooperatively with other Federal, State, and industry partners to conduct animal and plant health monitoring programs to rapidly determine if there is a need to establish new pest or disease management programs. APHIS, in conjunction with States, industry, and other stakeholders, protects American agriculture by eradicating harmful pests and diseases or, where eradication is not feasible, by minimizing their economic impact. The Agency monitors endemic pests and diseases through surveys to detect their location and through inspection to prevent their spread into non-infested parts of the country.

The Agency maintains a cadre of trained professionals prepared to respond immediately to potential animal and plant health emergencies. Program personnel investigate reports of suspected exotic pests and diseases and take emergency action if necessary. To facilitate these efforts, APHIS develops pathway studies and thoroughly investigates outbreaks to determine the origin of animal and plant pests and diseases and the most appropriate response actions to take. APHIS also actively engages State, Tribal, and local governments, and industries to advance their emergency preparedness and response capabilities.

Through its Wildlife Services program, APHIS protects agriculture from detrimental animal predators through identification and demonstration of the most appropriate methods of control. APHIS also develops methods to control animals and pests that are detrimental to agriculture, wildlife, and public safety. The Agency's regulatory structure brings the benefits of genetic research to the marketplace, while protecting against the release of potentially harmful organisms into the environment. APHIS also conducts diagnostic laboratory activities that support the Agency's veterinary disease prevention, detection, control, and eradication programs. The Agency also provides and directs technology development in coordination with other groups in APHIS to support plant protection programs of the Agency and its cooperators at the State, national, and international levels.

Safe Trade and International Technical Assistance

Sanitary (animal) and phytosanitary (plant) (SPS) measures implemented by U.S. trading partners can have a significant impact on market access for the United States as an exporter of agricultural products. APHIS plays a central role in resolving technical trade issues to ensure the smooth and safe movement of agricultural commodities into and out of the United States. This is done through negotiating access to new markets, preserving existing markets, and expanding existing markets. APHIS' role is to negotiate animal and plant health certification requirements, assist U.S. exporters in meeting foreign regulatory requirements, ensure requirements are proportional to risk without being excessively restrictive, and provide any necessary technical information to support the safety of U.S. agricultural products destined for foreign markets.

APHIS helps to protect the United States from emerging animal and plant pests and diseases while meeting obligations under the World Trade Organizations SPS agreement by assisting developing countries in improving their safeguarding systems. APHIS collaborates with other Federal agencies including the Foreign Agricultural Service, the U.S. Agency for International Development, the State Department, and the Office of the U.S. Trade Representative, to implement technical and regulatory capacity building projects with shared resources. APHIS develops and implements programs designed to identify and reduce agricultural pest and disease threats while still outside of U.S. borders, to enhance safe agricultural trade, and to strengthen emergency response preparedness.

Animal Welfare

The Agency conducts regulatory activities to ensure the humane care and treatment of certain animals and horses as required by the Animal Welfare Act of 1966 as amended (7 U.S.C. 2131-2159), and the Horse Protection Act of 1970 as amended (15 U.S.C. 1821-1831). These activities include inspection of certain establishments that handle animals intended for research, exhibition, and sale as pets, and monitoring of certain horse shows.

Statutory Authorities

APHIS operates under the following authorities:

General:

7 U.S.C. 450	Talmadge-Aiken Act (cooperation with States)
7 U.S.C. 7759	User Fees
21 U.S.C. 136-136a	User Fees
31 U.S.C. 1535	Agency Agreements
31 U.S.C. 9701	Offsetting collections and miscellaneous Receipts
7 U.S.C. 3291a (3)	Authority to provide technical assistance and training
7 U.S.C. 5680	Farm Security and Rural Investment Act of 2002-reporting on SPS issues and trade barriers
7 U.S.C. 5925	Food, Agriculture, Conservation, and Trade Act of 1990-authorizes funding for national honeybee pest survey
7 U.S.C. 2279g	Marketing Services; cooperative agreements

Animal Health:

7 U.S.C. 8301-8317	The Animal Health Protection Act
49 U.S.C. 80502	28-Hour Law (feed, water, and rest for animals)
19 U.S.C. 1202, Part I, Item 100.01	Purebred animal duty-free entry
7 U.S.C. 1622	Section 203 of the Agricultural Marketing Act of 1946
7 U.S.C. 1624	Section 205 of the Agricultural Marketing Act of 1946
7 U.S.C. 430	Section 101(d) of the Organic Act of 1944

Animal Health (continued):

7 U.S.C. 3801-3813	Swine Health Protection Act
7 U.S.C. 851-855	Anti-hog cholera serum and hog cholera virus
7 U.S.C. 2274	Firearms (tick inspectors)
7 U.S.C. 1901 note	Transportation of Equines to Slaughter
21 U.S.C. 151-159	Virus-Serum-Toxin Act
21 U.S.C. 113a	Authority to establish research facilities for FMD and other diseases
21 U.S.C. 618	Section 18 of the Federal Meat Inspection Act, as amended, as it pertains to the issuance of certificates of condition of live animals for export
7 U.S.C. 8401	Title II, Subtitles B and C of the Agricultural Bioterrorism Act of 2002
7 U.S.C. 8318	Section 10504 of the Farm Security and Rural Investment Act of 2002 (training of accredited veterinarians)

Plant Health:

7 U.S.C. 7701-7772; and 7781-7786	Plant Protection Act
7 U.S.C. 1581-1611	Title III, Federal Seed Act
7 U.S.C. 2801 note; 2814	Federal Noxious Weed Act
7 U.S.C. 281-286	Honeybee Act
7 U.S.C. 2279e and 2279f	Title V of the Agricultural Risk Protection Act of 2000 (penalties for interfering with inspection animals)
16 U.S.C. 1531-1544	Endangered Species Act (plants)
16 U.S.C. 3371-3378	Lacey Act (importation or shipment of injurious mammals, birds, fish)
7 U.S.C. 8401 and 8411	Title II, Subtitle B, of the Agricultural Bioterrorism Protection Act of 2002
39 U.S.C. 3015	Alien Species Prevention and Enforcement Act of 1992

Wildlife Services:

7 U.S.C. 426-426d	Control of predatory and other wild animals

Animal Welfare:

7 U.S.C. 2131-2159	Animal Welfare Act
15 U.S.C. 1821-1831	Horse Protection Act

There were 5,666 permanent full-time employees and 2,262 other than permanent full-time employees as of September 30, 2016. Of the total, 1,178 full-time employees were located at headquarters. APHIS manages programs on a national basis through 2 regional offices and 433 field offices, including area offices, work stations, technical centers, and animal import centers. APHIS conducts much of its work in cooperation with State and local agencies, private groups, and foreign governments. APHIS performs work in the 50 States, Washington, D.C., Guam, Puerto Rico, Virgin Islands, Mexico, Central America, South America, the Caribbean, Western Europe, Asia, and Africa.

Each year, the Office of Inspector General (OIG) and the Government Accountability Office (GAO) audits selected programs to examine the efficiency of the programs and operations including program results, compliance with applicable laws and regulations, and fair presentation of financial reports. Audits in which APHIS has been involved during 2016 – 2017 include those listed below. If an audit has no specific recommendations for APHIS, the audit will not be included in this listing for APHIS.

OIG Audits – In Progress

#01601-01-21	National Organic Program - International Trade Arrangements and Agreements. Audit is of Agricultural Marketing Service's National Organic program. APHIS provided port-related information. Audit work is on-going.
#11601-01-41	Departmental Oversight of Final Action on OIG Audit Recommendations. OIG is auditing the Office of the Chief Financial Officer's closure of OIG recommendations made to APHIS and other USDA agencies. Audit work is on-going.
#33099-01-23	Texas Boll Weevil Eradication Foundation Grant. Audit work is on-going.
#33601-01-31	APHIS Animal Welfare Act - Marine Mammals. OIG held the exit conference in November 2016.
#50016-01-23	Implementation of Suspension and Debarment Tools in USDA. OIG held the exit conference with APHIS and other USDA agencies in December 2016.
#50024-01-22	USDA Controls over Purchase Card Use. Audit includes APHIS and other USDA agencies. USDA's Office of Procurement and Personnel Management is the lead for this audit. Audit work is on-going.
#50099-03-21	USDA's Management Over the Misuse of Government Vehicles. Audit includes APHIS and other USDA agencies. Audit work is on-going.
#50401-11-11	USDA Consolidated Financial Statements for FYs 2015 and 2016. Audit includes APHIS and other USDA agencies. APHIS provided OIG with a response on the section on real property physical inventories. Audit work is on-going.
#50501-12-12	Federal Information Security Modernization Act. Audit includes APHIS and other USDA agencies. Audit work is on-going.
#50701-01-21	USDA Activities for Agro-terrorism Prevention, Detection and Response. Audit includes APHIS and other USDA agencies. Audit work is on-going.

OIG Audits – (OIG Audits with Issued Reports)

#33601-01-23	Plant Protection and Quarantine Preclearance Program. OIG report was issued in November 2014 with 16 recommendations for APHIS. APHIS implemented all of the recommendations.
#33601-01-41	APHIS Oversight of Research Facilities. OIG issued the final report in December 2014 with 15 recommendations. Of the 15 recommendations, 14 recommendations are closed.
#33601-02-41	APHIS Wildlife Services – Wildlife Damage Management Start Date. OIG report was issued in September 2015 with 7 recommendations for APHIS. APHIS implemented all of the recommendations.
#50601-01-32	Controls Over APHIS' Introduction of Genetically Engineered Organisms. OIG issued the final report in September 2015 with 13 recommendations. APHIS has implemented 9 of the 13 recommendations.

#50601-04-31	USDA Response to Antibiotic Resistance. OIG issued the final report in March 2016 with 6 of the 19 recommendations for APHIS. APHIS has until March 2017 to implement the recommendations.
#50601-08-TE	Controls Over APHIS Issuance of Genetically Engineered Organisms Release Permits. OIG issued the final report in December 2005 with 28 recommendations. Of the 28 recommendations, 25 are closed. Recommendations #1-3 remain open.
#50610-16-TE	Controls Over Genetically Engineered Animal and Insect Research. OIG issued the final report in May 2011 with 8 recommendations. APHIS closed 7 recommendations. Recommendation #2 remains open.

GAO Audits – In Progress

#100267	Federal Actions to Monitor and Control Antibiotic Resistance in Food Animals. Audit includes APHIS and other USDA and non-USDA agencies. Audit work is on-going.
#100220	Land Mobile Radio Procurement and Interoperability. Audit is government-wide (excluding the Department of Defense). Audit work is on-going.
#100285	Foreign Ownership of Government-leased Space. Audit includes APHIS and other USDA and non-USDA agencies. Audit work is on-going.
#100294	Safety of Imported Beef from Countries with a History of FMD. GAO held the exit conference in December 2016. Audit includes APHIS and other USDA agencies.
#100668	Highly Pathogenic Avian Influenza. GAO held the exit conference in January 2017. Audit includes APHIS and other USDA agencies.
#100751	Biological Threat Characterization. Audit includes APHIS and other USDA and non-USDA agencies. Audit work is on-going.
#100849	Federally Owned Aircraft. USDA’s Office of Procurement and Personnel Management is the lead office. Audit is government-wide. Audit work is on-going.
#100924	Federal Facilities Risk Assessment Processes. The audit is of USDA’s Agricultural Research Service. APHIS was included in this audit. Audit work is on-going.
#101016	Comparative Oversight of High-Containment Laboratories. GAO held the entrance conference in August 2016. Audit includes APHIS and other non-USDA agencies. Audit work is on-going.
#101039	U.S. Foreign Assistance to Inter-American Multilateral Organizations. Audit includes APHIS and other USDA agencies. Audit work is on-going.
#197248	Agencies Use of Do Not Pay Initiative. Audit includes APHIS and other USDA agencies. Audit work is on-going.

GAO Reports – (Audits with Issued Reports)

#100332	Financial Management, Oversight, and Transparency Policies Review. APHIS prepared the Statement of Action (SOA) on January 10, 2017.
#291264	GAO issued the final report in April 2016 with 5 recommendations. APHIS and the other agencies are implementing the recommendations.

#361161	Horse Welfare. The GAO Report was issued in June 2011 with 4 recommendations for APHIS. APHIS implemented all 4 recommendations.
#361223	Antibiotic Use in Food and Animals. Audit includes APHIS and other non-USDA agencies. GAO issued the final report in September 2011 with 3 recommendations. Of the recommendations, 2 are closed. Recommendation #1 remains open.
#361330	Agricultural Quarantine Inspections. GAO issued the report in September 2012 with 3 recommendations for APHIS. Of the recommendations, two are closed. Recommendation #1 remains open.
#361355	Overall Strategy to Strengthen Disease Surveillance in Livestock and Poultry. The audit includes APHIS and other non-USDA agencies. GAO issued the final report in May 2013 with 1 recommendation. The recommendation remains open. The audit also includes DHS.
#361562	Federal Veterinarian Workforce. The audit includes the Office of Personnel Management. GAO issued the report in May 2015 with 1 recommendation for APHIS. The recommendation remains open.
#361589	Genetically Engineered Crops. The audit includes APHIS and USDA's National Agricultural Statistics Service. GAO issued the report in April 2016 with 3 recommendations. APHIS is currently implementing the recommendation.
#361615	Emerging Swine Diseases. GAO issued the final report in December 2015 with 3 recommendations. APHIS is implementing the recommendations.
#450973	Agricultural Quarantine Inspection Fees. The audit includes APHIS and other non-USDA agencies. GAO issued the report in March 2013 with 13 recommendations. Of the recommendations, 10 are closed. Recommendations #7, #13, and #14 remain open.
#460640	Improved Oversight of Dangerous Pathogens to Mitigate Risk. GAO issued the report in September 2016 with 4 recommendations for APHIS and several non-USDA Agencies. APHIS is in the process of implementing the recommendations.

ANIMAL AND PLANT HEALTH INSPECTION SERVICE

Available Funds and Staff Years (SYs)
(Dollars in thousands)

Item	<u>2015 Actual</u>		<u>2016 Actual</u>		<u>2017 Estimate</u>		<u>2018 President's Budget</u>	
	Amount	SYs	Amount	SYs	Amount	SYs	Amount	SYs
Salaries and Expenses:								
Discretionary Appropriations.....	\$871,315	4,713	\$894,415	4,732	\$892,716	4,732	\$810,000	4,418
Citrus Greening...a/.	-	-	5,500	-	5,490	-	-	-
Sub-Total Disc Funding.....	871,315	4,713	899,915	4,732	898,206	4,732	810,000	4,418
Mandatory Appropriations: Farm Bill.....	57,938	15	58,250	15	58,187	15	75,000	15
Agricultural Quarantine Inspection User Fees:								
Total Collections.....	634,004	1,250	686,629	1,250	738,090	1,250	744,915	1,250
Buildings and Facilities:								
Discretionary Appropriations.....	3,175	-	3,175	-	3,169	-	2,852	-
Trust Funds:								
Mandatory Funding.....	8,139	50	7,137	50	8,999	50	9,000	50
Foreign Service National Separation Liability Trust.....	673	-	896	-	-	-	400	-
Transfers In.....	1,007,018	543	-	-	23,901	1	-	-
Transfers Out.....	-467,463	-	-449,857	-	-534,515	-	-534,515	-
Adjusted Appropriation.....	2,114,799	6,571	1,206,145	6,047	1,196,036	6,048	1,107,652	5,733
Balance Available, SOY.....	287,393	245	399,030	642	321,557	492	251,126	371
Other Adjustments (NET).....	15,362	-	44,836	-	-	-	-	-
Total Available.....	2,417,554	6,816	1,650,011	6,689	1,517,593	6,540	1,358,778	6,104
Lapsing Balances.....	-2,332	-549	-3,628	-339	-	-	-	-
Balance Available, EOY.....	-399,030	-642	-321,557	-492	-251,126	-371	-178,842	-271
Subtotal Obligations, APHIS.....	2,016,192	5,625	1,324,826	5,858	1,266,467	6,169	1,179,936	5,833
<u>Obligations under other USDA appropriations:</u>								
Agricultural Marketing Service:								
for administrative and technical support.....	7,319	-	7,445	-	7,557	-	7,594	-
Agricultural Research Service:								
for administrative and technical support.....	4,539	-	4,099	-	4,160	-	4,181	-
Economic Research Service :								
for administrative and technical support.....	-	-	7	-	7		7	
Farm Service Agency:								
for administrative and technical support.....	25	-	-	-	-	-	-	-
Food Safety and Inspection Service								
for administrative and technical support.....	391	-	365	-	370	-	372	-
Food & Nutrition Service:								
for administrative and technical support.....	-	-	32	-	32	-	32	-
Foreign Agricultural Service:								
for administrative and technical support.....	4,848	-	3,497	-	3,550	-	3,567	-
Forest Service:								
for administrative and technical support.....	780	-	880	-	893	-	897	-
Grain Inspection, Packers and Stockyards Admin.:								
for administrative and technical support.....	1,635	-	1,645	-	1,669	-	1,678	-
National Appeals Division:								
for administrative and technical support.....	15	-	16	-	16	-	16	-
National Institute of Food and Agriculture:								
for administrative and technical support.....	25	-	24	-	25	-	25	-
Natural Resources Conservation Service:								
for administrative and technical support.....	1,292	-	925	-	939	-	944	-
Office of Human Resources Management:								
for administrative and technical support.....	213	-	-	-	-	-	-	-
Office of Operations:								
for administrative and technical support.....	4	-	-	-	-	-	-	-
Rural Development:								
for administrative and technical support.....	3	-	-	-	-	-	-	-
Total, Agriculture Appropriations.....	21,089	-	18,934	-	19,218	-	19,314	-

Item	<u>2015 Actual</u>		<u>2016 Actual</u>		<u>2017 Estimate</u>		<u>2018 President's Budget</u>	
	Amount	SYs	Amount	SYs	Amount	SYs	Amount	SYs
<u>Other Federal Funds:</u>								
DOD, U.S. Air Force.....	7,653	-	11,309	-	11,479	-	11,536	-
DOD, U.S. Coast Guard.....	2	-	10	-	10	-	10	-
DOD, Air National Guard.....	2,061	-	3,422	-	3,473	-	3,491	-
DOD, U.S. Navy.....	5,127	-	5,525	-	5,608	-	5,636	-
DOD, U.S. Marine Corps.....	866	-	1,002	-	1,017	-	1,022	-
DOD, U.S. Army	572	-	1,012	-	1,027	-	1,032	-
DOD, U.S. Army Corp of Engineers	2,657	-	1,655	-	1,680	-	1,689	-
DOD, Defense Threat Reduction Agency.....	676	-	803	-	815	-	819	-
Department of Energy.....	207	-	201	-	204	-	205	-
Department of Health and Human Services.....	585	-	18	-	19	-	19	-
DHS: for AQI and other services and support.....	1,426	-	1,177	-	1,195	-	1,201	-
Federal Emergency Management Agency.....	26	-	25	-	25	-	25	-
National Aeronautics and Space Administration.....	192	-	300	-	305	-	306	-
USDOl, Geological Survey, National Park Service, Office of Insular Affairs.....	829	-	1,602	-	1,626	-	1,634	-
USDOl, Bureau of Land Management & Reclamation: for administrative and technical support.....	521	-	512	-	520	-	523	-
USDOl, Fish and Wildlife Services: for natural resources and endangered species.....	3,295	-	2,931	-	2,975	-	2,990	-
USDOT: Federal Aviation Administration	1,176	-	1,170	-	1,187	-	1,193	-
Department of State: for miscellaneous services	249	-	157	-	160	-	160	-
Department of Veterans Affairs.....	30	-	26	-	26	-	27	-
Environmental Protection Agency for miscellaneous services.....	1,295	-	1,197	-	1,215	-	1,221	-
GSA: for miscellaneous services.....	17	-	1	-	1	-	1	-
Other Federal Funds.....	284	380	731	521	742	526	746	530
Total, Other Federal Funds.....	29,747	380	34,786	521	35,308	526	35,485	530
<u>Non-Federal Funds:</u>								
Funds from States and local entities for								
wildlife services support.....	52,419	640	52,010	568	52,417	570	52,679	580
Import-Export User Fees.....	44,894	342	45,369	354	45,678	360	45,907	365
Phytosanitary Certificate User Fees.....	18,153	101	20,015	133	20,315	135	20,417	135
Reimbursable Overtime.....	8,205	85	8,042	82	8,163	84	8,204	85
Veterinary Diagnostics User Fees.....	6,191	60	5,525	52	5,608	55	5,636	60
Other User Fees.....	4	-	2	-	2	-	2	-
Non-Federal.....	267	-	1,031	-	1,047	-	1,052	-
Subtotal, Reimbursable Salaries and Expenses.....	180,969	1,608	185,714	1,710	187,756	1,730	188,695	1,755
Total Obligations,								
Animal and Plant Health Inspection Service.....	\$2,197,161	7,233	\$1,510,540	7,568	\$1,454,223	7,899	\$1,368,631	7,588

a/ The Consolidated Appropriations Act 2016, included \$5.5M in one-time funding via a General Provision 764 for control, management and associated activities directly related to a multiple-agency response to citrus greening. Assuming a full year continuing resolution in FY 2017, the General Provision 764 is repeated.

ANIMAL AND PLANT HEALTH INSPECTION SERVICE

Permanent Positions by Grade and Staff Year Summary

Item	2015 Actual			2016 Actual			2017 Estimate			2018 President's Budget		
	Hdqs	Field	Total	Hdqs	Field	Total	Hdqs	Field	Total	Hdqs	Field	Total
Senior Executive Service.....	31	10	41	30	9	39	30	8	38	30	8	38
GS-15.....	66	54	120	69	63	132	70	60	130	70	60	130
GS-14.....	305	266	571	321	280	601	322	280	602	319	280	599
GS-13.....	267	464	731	281	502	783	288	517	805	282	516	798
GS-12.....	195	917	1,112	191	964	1,155	205	959	1,164	198	956	1,154
GS-11.....	94	801	895	93	787	880	95	778	873	88	733	821
GS-10.....	2	6	8	2	7	9	1	6	7	1	6	7
GS-09.....	75	422	497	72	469	541	75	485	560	70	420	490
GS-08.....	7	248	255	8	259	267	7	256	263	5	234	239
GS-07.....	75	566	641	63	588	651	64	605	669	62	568	630
GS-06.....	8	239	247	18	244	262	12	239	251	12	191	203
GS-05.....	5	184	189	8	163	171	8	166	174	8	117	125
GS-04.....	6	33	39	6	32	38	5	28	33	5	19	24
GS-03.....	0	16	16	2	13	15	2	15	17	2	10	12
GS-02.....	-	1	1	-	-	-	-	-	-	-	-	-
Other Graded Positions.....	19	138	157	14	108	122	16	128	144	16	39	55
Total Perm. Employment EOY.....	1,155	4,365	5,520	1,178	4,488	5,666	1,200	4,530	5,730	1,168	4,157	5,325
Unfilled Positions EOY.....	25	88	113	23	80	103	22	78	100	21	76	97
Total Permanent Positions.....	1,180	4,453	5,633	1,201	4,568	5,769	1,222	4,608	5,830	1,189	4,233	5,422
Staff Year Estimate.....	1,408	5,825	7,233	1,473	6,095	7,568	1,537	6,362	7,899	1,477	6,111	7,588

ANIMAL AND PLANT HEALTH INSPECTION SERVICE

Size, Composition and Cost Motor Vehicle and Aircraft Fleet

1. Size, Composition, and Cost of Motor Vehicle Fleet

APHIS uses vehicles to deliver mission critical services. The Agency's veterinarians, animal health technicians, inspectors, plant protection and quarantine officers, wildlife biologists, and other technical personnel use motor vehicles in their daily responsibilities, which entail travel between inspection sites, farms, ranches, ports, nurseries, and other commercial firms. In some cases, APHIS' cooperators use Agency vehicles as authorized in program cooperative agreements.

In many instances, using Government-Owned Vehicles is more cost effective than either leasing or using privately-owned vehicles. The U.S. Department of Agriculture's Strategic Sourcing Initiative (SSI) goal is to acquire vehicles through the best channel (lease vs. owned) and right-size the fleet inventory. To maximize the life span of vehicles, operators are required to keep historical maintenance records and submit the vehicles' operational and cost data for review and reporting at least once a year. Periodic maintenance surveys and reviews of consolidated vehicle fleet data ensure optimal use of each vehicle in the fleet.

Replacement criteria. APHIS replaces vehicles in accordance with Title 41, CFR § 102-34.270. Agency programs replace and retire vehicles using data on utilization, age, condition, and funding availability. APHIS has implemented efforts to both increase the number of alternative fuel vehicles and extend the life cycle of each vehicle.

Reductions to the motor vehicle fleet. During FY 2016, APHIS turned in 74 of the 80 vehicles that supported the highly pathogenic avian influenza emergency these past two years. This reduction was offset by the USDA SSI, which replaced approximately 925 owned vehicles with leased vehicles. We have sold over 700 of the SSI vehicles using GSA's web-based tool; we will use the sales proceeds in accordance with Title 41 CFR § 102-39.20.

Changes to the motor vehicle fleet. For FY 2018, APHIS' fleet will be 4,634, coming in below the FY 2015 target level of 4,665 vehicles (this includes both owned and leased). The sales proceeds from the SSI will be used to replace aging vehicles in our fleet. As a result of the sales proceeds from SSI, APHIS will reduce the average age of the owned fleet from over seven years to less than six years, and reduce our maintenance down time on our fleet by approximately 20 percent.

Within the FY 2017 level, the Agency expects no changes to the composition of its fleet.

Replacement of passenger motor vehicles. For FY 2018, the Agency proposes replacing 9 of the 297 vehicles currently in the Agency fleet that APHIS' technical personnel use in the field. Vehicles designated for disposal meet the General Service Administration's (GSA's) standards for replacement by having mileage of 60,000 or more, or by being three years of age or older.

Process Improvements. In FY 2017, APHIS in support of Executive Order 13693 plans to equip all newly acquired light and medium duty vehicles with telematics, which will assist us in emissions reduction. The executive order also requires vehicle-level data recording, resulting in increased accuracy of all reporting.

Impediments to managing the motor vehicle fleet. Currently there are no impediments to APHIS being able to manage its motor vehicle fleet.

Size, Composition, and Annual Operating Costs of Vehicle Fleet

Fiscal Year	Number of Vehicles by Type*									Annual Operating Costs (\$ in 000)
	Passenger Motor Vehicles (e.g. Sedans & Station Wagons)	Light Duty Vehicles				Medium Duty Vehicles		Heavy Duty Vehicles	Total Number of Vehicles	
		Vans	SUVs	Trucks		Buses	Trucks, Vans and SUVs			
				4x2	4x4					
2015	290	188	1,040	386	2,198	-	547	16	4,665	15,192
Change	+37	-6	+71	+58	+312	-	+54	-3	+523	+2,380
2016	327	182	1,111	444	2,510	-	601	13	5,188	17,572
Change	-30	-49	-90	-70	-288	-	-27	-	-554	+993
2017	297	133	1,021	374	2,222	-	574	13	4,634	18,565
Change	-	-	-	-	-	-	-	-	-	+371
2018	297	133	1,021	374	2,222	-	574	13	4,634	18,936

* Numbers include vehicles owned by the Agency and leased from GSA.

2. Size and Composition of Aircraft Fleet

APHIS uses aircraft to conduct aerial resource and surveillance surveys, aerial application tests, methods development and testing, and equipment demonstration and testing; control and/or eradicate destructive plant pests to keep them from attacking agricultural crops; and, alleviate or control wildlife damage to agricultural products.

The Appropriations Act provides APHIS with authority to acquire up to five aircraft of which two shall be for replacement; the Agency replaces aircraft when necessary to maintain fleet safety and efficient operating conditions.

The APHIS aircraft fleet consists of 7 operable aircraft for domestic plant pest and disease management programs, and 57 aircraft used for the wildlife damage management programs. Of the 57 aircraft used for the wildlife damage management programs: 49 are owned, 4 are borrowed from State cooperators, and 4 are rented. Of the 49 owned aircraft, 8 of them are non-operational. APHIS uses the non-operational aircraft for parts.

ANIMAL AND PLANT HEALTH INSPECTION SERVICE

The estimates include appropriation language for this item as follows (new language underscored; deleted matter enclosed in brackets):

Salaries and Expenses:

For necessary expenses of the Animal and Plant Health Inspection Service, including up to \$30,000 for representation allowances and for expenses pursuant to the Foreign Service Act of 1980 (22 U.S.C. 4085), [~~\$894,415,000~~]\$810,000,000, of which [~~\$470,000~~]\$469,000, to remain available until expended, shall be available for the control of outbreaks of insects, plant diseases, animal diseases and for control of pest animals and birds ("contingency fund") to the extent necessary to meet emergency conditions; of which [~~\$11,520,000~~]\$7,000,000, to remain available until expended, shall be used for the cotton pests program for cost share purposes or for debt retirement for active eradication zones; of which [~~\$35,339,000~~]\$35,272,000 to remain available until expended, shall be for Animal Health Technical Services; of which [~~\$697,000~~]\$696,000 shall be for activities under the authority of the Horse Protection Act of 1970, as amended (15 U.S.C. 1831); of which [~~\$55,340,000~~]\$55,235,000, to remain available until expended, shall be used to support avian health; of which [~~\$4,251,000~~]\$4,243,000, to remain available until expended, shall be for information technology infrastructure; of which [~~\$158,000,000~~]\$148,033,000, to remain available until expended, shall be for specialty crop pests; of which, [~~\$8,826,000~~]\$8,809,000, to remain available until expended, shall be for field crop and rangeland ecosystem pests; of which [~~\$54,000,000~~]\$30,000,000, to remain available until expended, shall be for tree and wood pests; of which [~~\$3,973,000~~]\$3,965,000, to remain available until expended, shall be for the National Veterinary Stockpile;] of which up to \$1,500,000, to remain available until expended, shall be for the scrapie program for indemnities; of which \$2,500,000, to remain available until expended, shall be for the wildlife damage management program for aviation safety: *Provided*, That of amounts available under this heading for wildlife services methods development, \$1,000,000 shall remain available until expended: *Provided further*, That of amounts available under this heading for the screwworm program, \$4,990,000 shall remain available until expended: *Provided further*, That no funds shall be used to formulate or administer a brucellosis eradication program for the current fiscal year that does not require minimum matching by the States of at least 40 percent: *Provided further*, That this appropriation shall be available for the operation and maintenance of aircraft and the purchase of not to exceed five, of which two shall be for replacement only: *Provided further*, That in addition, in emergencies which threaten any segment of the agricultural production industry of this country, the Secretary may transfer from other appropriations or funds available to the agencies or corporations of the Department such sums as may be deemed necessary, to be available only in such emergencies for the arrest and eradication of contagious or infectious disease or pests of animals, poultry, or plants, and for expenses in accordance with sections 10411 and 10417 of the Animal Health Protection Act (7 U.S.C. 8310 and 8316) and sections 431 and 442 of the Plant Protection Act (7 U.S.C. 7751 and 7772), and any unexpended balances of funds transferred for such emergency purposes in the preceding fiscal year shall be merged with such transferred amounts: *Provided further*, That appropriations hereunder shall be available pursuant to law (7 U.S.C. 2250) for the repair and alteration of leased buildings and improvements, but unless otherwise provided the cost of altering any one building during the fiscal year shall not exceed 10 percent of the current replacement value of the building.

In fiscal year [~~2016~~]2018, the agency is authorized to collect fees to cover the total costs of providing technical assistance, goods, or services requested by States, other political subdivisions, domestic and international organizations, foreign governments, or individuals, provided that such fees are structured such that any entity's liability for such fees is reasonably based on the technical assistance, goods, or services provided to the entity by the agency, and such fees shall be reimbursed to this account, to remain available until expended, without further appropriation, for providing such assistance, goods, or services.

ANIMAL AND PLANT HEALTH INSPECTION SERVICE

Salaries and Expenses

Lead-Off Tabular Statement

Current Law

Budget Estimate, 2018.....	\$810,000,000
2017 Annualized Continuing Resolution.....	<u>\$892,716,000</u>
Change in Appropriation.....	<u><u>-82,716,000</u></u>

Summary Of Increases and Decreases - Current Law (Dollars in thousands)

Program	2015 Actual	2016 Change	2017 Change	2018 Change	2018 President's Budget
Discretionary Appropriations:					
<u>Safeguarding and Emergency Preparedness/Response</u>					
Animal Health Technical Services.....	\$35,339	-	-\$67	-	\$35,272
Aquatic Animal Health.....	2,253	-	-4	-	2,249
Avian Health.....	52,340	+\$3,000	-105	-	55,235
Cattle Health.....	92,500	-1,000	-174	-	91,326
Equine, Cervid & Small Ruminant Health.....	19,500	-	-37	-	19,463
National Veterinary Stockpile.....	3,973	-	-8	-	3,965
Swine Health.....	24,250	+550	-47	-	24,753
Veterinary Biologics.....	16,417	-	-31	-	16,386
Veterinary Diagnostics.....	31,540	+5,000	-69	-	36,471
Zoonotic Disease Management.....	9,523	-	-18	-	9,505
Subtotal, Animal Health.....	<u>287,635</u>	<u>+7,550</u>	<u>-560</u>	<u>-</u>	<u>294,625</u>
Agricultural Quarantine Inspection (Appropriated).....	26,900	+1,000	-53	-	27,847
Cotton Pests.....	11,520	-	-22	-\$4,498	7,000
Field Crop & Rangeland Ecosystems Pests.....	8,826	-	-17	-	8,809
Pest Detection.....	27,446	-	-52	-	27,394
Plant Protection Methods Development	20,686	-	-39	-	20,647
Specialty Crop Pests a/.....	156,000	+2,000	-300	-9,667	148,033
Tree & Wood Pests.....	54,000	-	-103	-23,897	30,000
Subtotal, Plant Health	<u>305,378</u>	<u>+3,000</u>	<u>-586</u>	<u>-38,062</u>	<u>269,730</u>
Wildlife Damage Management.....	90,027	+11,150	-192	-44,654	56,331
Wildlife Services Methods Development.....	18,856	-	-36	-	18,820
Subtotal, Wildlife Services	<u>108,883</u>	<u>+11,150</u>	<u>-228</u>	<u>-44,654</u>	<u>75,151</u>
Animal & Plant Health Regulatory Enforcement.....	16,224	-	-31	-	16,193
Biotechnology Regulatory Services.....	18,875	-	-36	-	18,839
Subtotal, Regulatory Services.....	<u>35,099</u>	<u>-</u>	<u>-67</u>	<u>-</u>	<u>35,032</u>
Contingency Fund.....	470	-	-1	-	469
Emergency Preparedness & Response.....	16,966	-	-32	-	16,934
Subtotal, Emergency Management.....	<u>17,436</u>	<u>-</u>	<u>-33</u>	<u>-</u>	<u>17,403</u>
Subtotal, Safeguarding and Emergency Preparedness/Response.....	<u><u>754,431</u></u>	<u><u>+21,700</u></u>	<u><u>-1,474</u></u>	<u><u>-82,716</u></u>	<u><u>691,941</u></u>

Program	2015 Actual	2016 Change	2017 Change	2018 Change	2018 President's Budget
<u>Safe Trade and International Technical Assistance</u>					
Agriculture Import/Export.....	14,099	+1,000	-29	-	15,070
Overseas Technical & Trade Operations.....	22,114	-	-42	-	22,072
Subtotal, Safe Trade and International Technical Assistance.....	36,213	+1,000	-71	-	37,142
<u>Animal Welfare</u>					
Animal Welfare.....	28,010	+400	-54	-	28,356
Horse Protection.....	697	-	-1	-	696
Subtotal, Animal Welfare.....	28,707	+400	-55	-	29,052
<u>Agency Wide Programs</u>					
APHIS Information Technology Infrastructure.....	4,251	-	-8	-	4,243
Physical/Operational Security.....	5,146	-	-10	-	5,136
Rental and DHS Security Payments.....	42,567	-	-81	-	42,486
Subtotal, Agency Wide Programs.....	51,964	-	-99	-	51,865
General Provision 764 a/	-	+5,500	-10	-5,490	-
Total, Discretionary Appropriations.....	871,315	+28,600	-1,709	-88,206	810,000

a/ The FY 2016 General Provision 764 provides \$5.5 million to remain available until September 30, 2017, for one-time control and management and associated activities directly related to the multiple-agency response to citrus greening. Assuming a full year continuing resolution in FY 2017, the General Provision is repeated in the amount of \$5.49 million.

ANIMAL AND PLANT HEALTH INSPECTION SERVICE

Salaries and Expenses

Project Statement
Appropriations Detail and Staff Years (SYs)
(Dollars in thousands)

Program	2015 Actual		2016 Actual		2017 Estimate		Inc. or Dec.		2018 President's Budget	
	Amount	SYs	Amount	SYs	Amount	SYs	Amount	SYs	Amount	SYs
<u>Discretionary Appropriations:</u>										
<u>Safeguarding and Emergency Preparedness/Response</u>										
Animal Health Technical Services.....	\$35,339	64	\$35,339	64	\$35,272	156	- 1a	-	\$35,272	156
Aquatic Animal Health.....	2,253	22	2,253	22	2,249	13	- 1b	-	2,249	13
Avian Health.....	52,340	196	55,340	196	55,235	247	- 1c	-	55,235	247
Cattle Health.....	92,500	555	91,500	551	91,326	473	- 1d	-	91,326	473
Equine, Cervid & Small Ruminant Health.....	19,500	120	19,500	120	19,463	120	- 1e	-	19,463	120
National Veterinary Stockpile.....	3,973	1	3,973	1	3,965	7	- 1f	-	3,965	7
Swine Health.....	24,250	128	24,800	130	24,753	146	- 1g	-	24,753	146
Veterinary Biologics.....	16,417	109	16,417	109	16,386	101	- 1h	-	16,386	101
Veterinary Diagnostics.....	31,540	190	36,540	190	36,471	151	- 1i	-	36,471	151
Zoonotic Disease Management.....	9,523	45	9,523	45	9,505	45	- 1j	-	9,505	45
Subtotal, Animal Health.....	287,635	1,430	295,185	1,428	294,625	1,459	-	-	294,625	1,459
<u>Agricultural Quarantine Inspection</u>										
(Appropriated)	26,900	360	27,900	369	27,847	362	- 1k	-	27,847	362
Cotton Pests.....	11,520	58	11,520	58	11,498	51	-\$4,498 1l	-	7,000	51
Field Crop & Rangeland Ecosystems Pests.....	8,826	58	8,826	58	8,809	77	- 1m	-	8,809	77
Pest Detection.....	27,446	145	27,446	145	27,394	190	- 1n	-	27,394	190
Plant Protection Methods Development.....	20,686	141	20,686	141	20,647	131	- 1o	-	20,647	131
Specialty Crop Pests.....	156,000	688	158,000	688	157,700	718	-9,667 1p	-24	148,033	694
Tree & Wood Pests.....	54,000	319	54,000	319	53,897	301	-23,897 1q	-82	30,000	219
Subtotal, Plant Health	305,378	1,769	308,378	1,778	307,792	1,830	-38,062	-106	269,730	1,724
Wildlife Damage Management.....	90,027	620	101,177	628	100,985	589	-44,654 1r	-171	56,331	418
Wildlife Services Methods Development.....	18,856	163	18,856	163	18,820	125	- 1s	-	18,820	125
Subtotal, Wildlife Services	108,883	783	120,033	791	119,805	714	-44,654	-171	75,151	543
Animal & Plant Health Regulatory Enforcement.....	16,224	142	16,224	142	16,193	116	- 1t	-	16,193	116
Biotechnology Regulatory Services.....	18,875	92	18,875	92	18,839	96	- 1u	-	18,839	96
Subtotal, Regulatory Services	35,099	234	35,099	234	35,032	212	-	-	35,032	212
Contingency Fund.....	470	5	470	5	469	5	- 1v	-	469	5
Emergency Preparedness & Response.....	16,966	90	16,966	90	16,934	97	- 1w	-	16,934	97
Subtotal, Emergency Management	17,436	95	17,436	95	17,403	102	-	-	17,403	102
Subtotal Safeguarding and Emergency Preparedness/Response.....	754,431	4,311	776,131	4,326	774,657	4,317	-82,716	-277	691,941	4,040
<u>Safe Trade and International Technical Assistance</u>										
Agriculture Import/Export.....	14,099	92	15,099	94	15,070	80	- 2a	-	15,070	80
Overseas Technical & Trade Operations.....	22,114	86	22,114	86	22,072	55	- 2b	-	22,072	55
Subtotal Safe Trade and International Technical Assistance.....	36,213	178	37,213	180	37,142	135	-	-	37,142	135
<u>Animal Welfare</u>										
Animal Welfare.....	28,010	218	28,410	220	28,356	232	- 3a	-	28,356	232
Horse Protection.....	697	6	697	6	696	6	- 3b	-	696	6
Subtotal, Animal Welfare.....	28,707	224	29,107	226	29,052	238	-	-	29,052	238
<u>Agency-Wide Programs</u>										
APHIS Information Technology Infrastructure.....	4,251	-	4,251	-	4,243	-	- 4a	-	4,243	-
Physical/Operational Security.....	5,146	-	5,146	-	5,136	5	- 4b	-	5,136	5
Decentralized GSA Rental and DHS Security Payments.....	42,567	-	42,567	-	42,486	-	- 4c	-	42,486	-
Subtotal, Agency Management.....	51,964	-	51,964	-	51,865	5	-	-	51,865	5
Subtotal, Appropriated	871,315	4,713	894,415	4,732	892,716	4,695	-82,716	-277	810,000	4,418

Program	2015 Actual		2016 Actual		2017 Estimate		Inc. or Dec.		2018 President's Budget	
	Amount	SYs	Amount	SYs	Amount	SYs	Amount	SYs	Amount	SYs
General Provision 764.....	-	-	5,500	-	5,490	-	-5,490	-	-	-
Subtotal, Discretionary Appropriated	871,315	4,713	899,915	4,732	898,206	4,695	-88,206	-277	810,000	4,418
Authority from Offsetting collections.....	187,990	1,509	176,570	1,685	188,250	1,685	+377	-	188,627	1,685
Sequester Restored...Offsetting Collections.....	-	-	-	-	-	-	-	-	-	-
Subtotal, Offsetting Collections.....	187,990	1,509	176,570	1,685	188,250	1,685	+377	-	188,627	1,685
Mandatory Funding:										
Farm Bill, Section 10007	62,500	15	62,500	15	62,500	15	+12,500	-	75,000	15
Sequester P.L. 113-6...Farm Bill.....	-4,563	-	-4,250	-	-4,313	-	+4,313	-	-	-
Subtotal, Farm Bill.....	57,937	15	58,250	15	58,187	15	+16,813	-	75,000	15
Trust Funds.....	8,140	50	7,131	50	9,000	50	-	-	9,000	50
Sequester Restored P.L. 113-6...Trust Funds.....	95	-	96	-	89	-	-89	-	-	-
Foreign Service National Separation Liability Trust.....	673	-	896	-	-	-	+400	-	400	-
Agricultural Quarantine Inspection User Fees:										
Total Collections.....	636,047	1,250	686,354	1,250	744,915	1,250	-	-	744,915	1,250
Less: Transfer to DHS	-467,463	-	-449,857	-	-534,515	-	-	-	-534,515	-
Sequester P.L. 113-6 ...AQI.....	-44,849	-	-44,574	-	-51,399	-	+51,399	-	-	-
Sequester Restored ...AQI.....	42,806	-	44,849	-	44,574	-	-44,574	-	-	-
AQI User Fees (APHIS).....	166,541	1,250	236,772	1,250	203,575	1,250	+6,825	-	210,400	1,250
Subtotal, Mandatory Funding.....	233,387	1,315	303,145	1,315	270,851	1,315	23,949	-	294,800	1,315
Total Appropriations	1,292,691	7,537	1,379,629	7,732	1,357,307	7,695	-63,880	-277	1,293,427	7,418
Transfers In:										
CCC.....	1,006,916	543	-	-	23,901	1	-23,901	-1	-	-
Departmental	102	-	102	-	102	-	-102	-	-	-
Transfers Out:										
Working Capital Fund.....	-	-	-	-	-	-	-	-	-	-
Subtotal, Transfers.....	1,007,018	543	102	0	24,003	1	-24,003	-1	-	-
Balance Available, SOY.....	491,031	330	590,774	792	485,876	642	-70,040	-203	415,836	439
Sequester P.L. 113-6 ...Trust Funds.....	-96	-	-89	-	-91	-	+91	-	-	-
Recoveries Trust Funds.....	229	-	159	-	-	-	-	-	-	-
Recoveries.....	14,251	-	42,728	-	-	-	-	-	-	-
Total Available	2,805,124	8,410	2,013,303	8,524	1,867,096	8,338	-157,833	-481	1,709,263	7,857
Lapsing Balances.....	-21,624	-385	-25,094	-314	-	-	-	-	-	-
Balance Available, EOY.....	-590,774	-792	-485,876	-642	-415,836	-439	+72,204	+170	-343,632	-269
Total Obligations	2,192,726	7,233	1,502,333	7,568	1,451,260	7,899	-85,629	-311	1,365,631	7,588

Salaries and Expenses

Project Statement
Obligations Detail and Staff Years (SYs)
(Dollars in thousands)

Program	<u>2015 Actual</u>		<u>2016 Actual</u>		<u>2017 Estimate</u>		<u>Inc. or Dec.</u>		<u>2018 President's Budget</u>	
	Amount	SYs	Amount	SYs	Amount	SYs	Amount	SYs	Amount	SYs
<u>Discretionary Obligations:</u>										
<u>Safeguarding and Emergency Preparedness/Response</u>										
Animal Health Technical Services.....	\$34,290	64	\$37,010	64	\$37,365	156	-\$1,326 1a	-	\$36,039	156
Aquatic Animal Health.....	2,201	21	2,241	21	2,249	13	- 1b	-	2,249	13
Avian Health.....	60,041	225	50,788	195	53,597	247	+1,840 1c	-	55,437	247
Cattle Health.....	90,423	488	88,979	460	92,215	469	+1,046 1d	+4	93,261	473
Equine, Cervid & Small Ruminant Health.....	20,817	114	19,464	115	19,490	120	-67 1e	-	19,424	120
National Veterinary Stockpile.....	3,121	2	3,495	1	4,723	7	+229 1f	-	4,952	7
Swine Health.....	24,244	128	24,798	128	24,753	146	- 1g	-	24,753	146
Veterinary Biologics.....	16,398	92	16,414	99	16,386	101	- 1h	-	16,386	101
Veterinary Diagnostics.....	31,519	173	36,540	172	36,471	151	- 1i	-	36,471	151
Zoonotic Disease Management.....	9,516	43	9,484	43	9,505	45	- 1j	-	9,505	45
Subtotal, Animal Health.....	292,571	1,350	289,213	1,298	296,755	1,455	1,723	+4	298,478	1,459
<u>Agricultural Quarantine Inspection</u>										
(Appropriated).....	26,850	356	27,900	356	27,847	362	- 1k	-	27,847	362
Cotton Pests.....	12,071	58	12,504	57	11,570	51	-4,310 1l	-	7,260	51
Field Crop & Rangeland Ecosystems Pests.....	9,169	61	8,973	59	9,402	77	-548 1m	-	8,854	77
Pest Detection.....	26,446	143	27,396	143	27,394	190	- 1n	-	27,394	190
Plant Protection Methods Development.....	20,685	131	20,685	129	20,647	131	- 1o	-	20,647	131
Specialty Crop Pests.....	163,447	631	170,409	631	164,076	714	-22,527 1p	-20	141,549	694
Tree & Wood Pests.....	55,061	259	53,052	259	54,533	301	-21,397 1q	-82	33,136	219
Subtotal, Plant Health.....	313,730	1,639	320,920	1,634	315,469	1,826	-48,782	-102	266,687	1,724
Wildlife Damage Management.....	89,991	543	99,608	543	101,300	589	-44,332 1r	-171	56,968	418
Wildlife Services Methods Development.....	18,825	143	18,897	143	18,900	125	-145 1s	-	18,755	125
Subtotal, Wildlife Services.....	108,816	686	118,506	686	120,200	714	-44,477	-171	75,723	543
Animal & Plant Health Regulatory Enforcement.....	16,218	126	16,224	126	16,193	116	- 1t	-	16,193	116
Biotechnology Regulatory Services.....	18,831	88	18,862	88	18,839	96	- 1u	-	18,839	96
Subtotal, Regulatory Services.....	35,049	214	35,086	214	35,032	212	-	-	35,032	212
Contingency Fund.....	2,379	15	1,577	5	750	5	+290 1v	-	1,040	5
Emergency Preparedness & Response.....	16,889	90	16,966	90	16,934	97	- 1w	-	16,934	97
Subtotal, Emergency Management.....	19,268	105	18,543	95	17,684	102	+290	-	17,974	102
Subtotal Safeguarding and Emergency Preparedness/Response.....	769,435	3,994	782,268	3,927	785,140	4,309	-91,246	-269	693,894	4,040
<u>Safe Trade and International Technical Assistance</u>										
Agriculture Import/Export.....	13,999	87	15,074	91	15,070	80	- 2a	-	15,070	80
Overseas Technical & Trade Operations.....	21,977	60	22,114	60	22,072	55	- 2b	-	22,072	55
Subtotal Safe Trade and International Technical Assistance.....	35,975	147	37,188	151	37,142	135	-	-	37,142	135
<u>Animal Welfare</u>										
Animal Welfare.....	28,009	202	28,177	202	28,356	232	- 3a	-	28,356	232
Horse Protection.....	681	6	695	6	696	6	- 3b	-	696	6
Subtotal, Animal Welfare.....	28,690	208	28,872	208	29,052	238	-	-	29,052	238
<u>Agency-Wide Programs</u>										
APHIS Information Technology Infrastructure.....	3,944	-	4,043	-	4,331	-	+422 4a	-	4,753	-
Physical/Operational Security.....	5,146	-	5,137	-	5,136	5	- 4b	-	5,136	5
Decentralized GSA Rental and DHS Security Payments.....	42,567	-	42,567	-	42,486	-	- 4c	-	42,486	-
Subtotal, Agency Management.....	51,657	-	51,748	-	51,953	5	+422	-	52,375	5
General Provision 748.....	15,738	-	-	-	-	-	-	-	-	-
General Provision 764.....	-	-	637	-	4,863	-	-4,863	-	-	-
Subtotal, Discretionary.....	901,495	4,349	900,713	4,286	908,150	4,687	-95,687	-269	812,463	4,418

Program	2015 Actual		2016 Actual		2017 Estimate		Inc. or Dec.		2018 President's Budget	
	Amount	SYs	Amount	SYs	Amount	SYs	Amount	SYs	Amount	SYs
Mandatory Obligations:										
Agricultural Quarantine Inspection User Fees.....	199,283	1,138	226,945	1,232	240,000	1,250	-	-	240,000	1,250
Farm Bill.....	57,657	15	55,069	15	58,258	15	+16,816	-	75,073	15
Trust Funds.....	10,352	27	8,603	24	9,000	50	-	-	9,000	50
Foreign Service National Separation Liability Trust.....	673	-	26	-	870	-	-470	-	400	-
Subtotal, Mandatory	267,965	1,180	290,643	1,271	308,128	1,315	+16,345	-	324,473	1,315
Other Obligations:										
CCC.....	838,501	96	119,943	301	45,000	167	-5,000	-67	40,000	100
Obligations from Offsetting collections.....	180,969	1,608	185,714	1,710	187,756	1,730	+939	+25	188,695	1,755
Homeland Security, HUB Relo, & Department.....	102	-	92	-	117	-	-117	-	-	-
H1N1.....	2,830	-	3,107	-	2,109	-	-2,109	-	-	-
Refunds for equipment sold.....	864	-	2,122	-	-	-	-	-	-	-
Subtotal, Other	1,023,266	1,704	310,977	2,011	234,982	1,897	-6,287	-42	228,695	1,855
Total, Obligations	2,192,726	7,233	1,502,333	7,568	1,451,260	7,899	-85,629	-311	1,365,631	7,588
Lapsing Balances.....	21,624	385	25,094	314	-	-	-	-	-	-
Balance Available, EOY.....	590,774	792	485,876	642	415,836	439	-72,204	-170	343,632	269
Total, Available	2,805,124	8,410	2,013,303	8,524	1,867,096	8,338	-157,833	-481	1,709,263	7,857
Transfers In:										
CCC	-1,006,916	-543	-	-	-23,901	-1	+23,901	+1	-	-
Departmental.....	-102	-	-102	-	-102	-	+102	-	-	-
Transfers Out:										
Working Capital Fund.....	-	-	-	-	-	-	-	-	-	-
Sequester P.L. 113-6.....	96	-	89	-	91	-	-91	-	-	-
Balance Available, SOY.....	-491,031	-330	-590,774	-792	-485,876	-642	+70,041	+203	-415,836	-439
Recoveries: Other (Net).....	-14,480	-	-42,887	-	-	-	-	-	-	-
Total, Appropriation	1,292,691	7,537	1,379,629	7,732	1,357,307	7,695	-63,880	-277	1,293,427	7,418

ANIMAL AND PLANT HEALTH INSPECTION SERVICE

Justification of Increases and Decreases Salaries and Expenses

A large portion of APHIS' budget is in support of personnel compensation. Absorbing the \$10,361,000 in pay costs will result in a reduction of direct program dollars available for hands-on operations. The increased pay costs include \$2,771,000 to cover the annualization of the 2.1 percent pay increase in 2017 and \$7,590,000 is for the proposed 1.9 percent pay cost increase in 2018.

(1) A decrease of \$82,716,000 and 277 staff years for Safeguarding and Emergency Preparedness/Response

Safeguarding and Emergency Preparedness/Response - Animal Health.

(a) Animal Health Technical Services program (\$35,272,000 and 156 staff years available in 2017).

APHIS' Animal Health Technical Services program enhances the tools available for acquiring and managing information vital for maintaining and improving global market access. Incorporating national surveillance data standards into data management applications enables animal health information, which Federal, State, Tribal, and private individuals enter in multiple systems, to be compiled nationally, thus leveraging the work of animal health professionals nationwide to meet local, State and national veterinary health objectives. Private veterinarians trained and accredited by APHIS help producers meet export requirements and disease program standards, allowing U.S. animals and animal products to compete in the global economy. Disease transmission and spread models, developed and shared by the Agency, allow improved planning and management of animal health incidents.

The national Animal Disease Traceability (ADT) framework allows Federal, State, Local, Tribal, and private animal health professionals to work together to identify diseased animals in a timely manner, quickly trace their movements, and control disease spread to protect the U.S. livestock industry, whose production value was approximately \$79 billion in 2015 (National Agricultural Statistics Service, USDA). Knowing where diseased and at-risk animals are located helps preserve animal health, reduce animal illnesses and deaths if outbreaks occur; ensure a rapid response to an animal disease event; and decrease the cost to producers, consumers, and the government. Such a system assures our trading partners that USDA is committed and able to rapidly contain an animal disease event. This program continues to progress toward developing a traceability system that is effective, flexible, and increases the timeliness of retrieving traceability data. APHIS provides cooperative agreement funds to States to help them establish and maintain their own ADT plans. For the second consecutive year, 100 percent of States receiving cooperative agreement funds had an ADT strategic plan in place in FY 2016. APHIS has been partnering with these States to test tracing capabilities in accordance with their plans. As a result, we saw noted improvement in the number of hours it took the States to retrieve records to determine the location the animal was identified, the location the animal was moved from when moved interstate, and from which State was imported animals shipped. In addition, APHIS continued to work with States and industries to increase the availability of electronic interstate certificates of veterinary inspection (ICVI), which are the primary documents, used to obtain animal movement information. This practice minimizes the regulatory burden on producers when they ship livestock to other States. ICVIs are easier to search than paper documents and increase the efficiency of animal health officials.

The AHTS program develops new information management systems, and maintains and improves existing data systems and applications in support of the Agency's animal health programs. APHIS also makes these systems available to States and Tribal Nations, who use them to support their ADT plans and other animal health activities. The AHTS program has fully adopted a national animal health surveillance system, known as Surveillance Collaboration Services (SCS). The SCS provides comprehensive, coordinated, and integrated animal health surveillance and program management software that serves as the foundation for animal health, public health, food safety, and environmental health. Efficient data integration has become vital due to the number of data sources from several partners, IT systems, and locations. With SCS, States have access to records of animal identification tag allocations; treatments and vaccinations for individual

animals; lab submissions and results; as well full tracing of intrastate movements and animal contact at any given date.

More than 66,000 highly-trained accredited veterinarians act as the first line of defense for reportable domestic and foreign animal diseases. The voluntary National Veterinary Accreditation Program (NVAP) authorizes private veterinary practitioners to work cooperatively with Federal veterinarians and State animal health officials to report when these diseases are suspected. This provides the first step in rapid diagnosis, quarantine, and other control measures to safeguard our nation's animal and human health. Accredited veterinarians also provide official animal, flock, and herd health certifications, disease testing, and traceability practices for billions of animals each year. Three-year training and renewal requirements, which began in 2011, provide increased knowledge of animal disease surveillance, prevention, zoonosis, judicious use of antimicrobials, animal welfare, and disaster preparedness. Since 2011, more than 60,000 veterinarians successfully renewed their accreditation. APHIS now hosts 28 web-based supplemental training modules for accredited veterinarians. APHIS has integrated formal NVAP training into the curriculum of all U.S. veterinary schools, building knowledge among new veterinary professionals. Since FY 2011, accredited veterinarians have completed more than 370,000 web modules, with more than 22,000 modules completed at veterinary conferences nationwide. In FY 2016, APHIS entered into a cooperative agreement with Iowa State University's Center for Food Security and Public Health to obtain Registry of Continuing Education (RACE) approval of its web-based training modules, which will greatly enhance the program's outreach. Offering no-cost RACE-approved continuing education will expand the program's audience from 66,000 to more than 200,000 users by including non-accredited veterinarians, veterinary technicians, and veterinary students.

Overall, base funding for the Animal Health Technical Services program currently supports salaries and benefits of personnel, contracts and agreements, and other normal operating costs such as travel, supplies, rent, and utilities necessary to conduct program activities.

Pay (+\$344,000)

An increase of \$344,000 for pay costs (\$92,000 for annualization of the 2017 pay increase and \$252,000 for the 2018 pay cost increase).

Program reduction (-\$344,000)

Operating costs for the program will be reduced by \$344,000.

(b) Aquatic Animal Health program (\$2,249,000 and 13 staff years available in 2017).

The Aquatic Animal Health program aims to protect the health and marketability of U.S. farm raised aquatic animals and natural resources. The program carries out activities consistent with the National Aquatic Animal Health Plan (NAAHP), which calls for surveillance and testing of high-consequence aquatic animal diseases. In addition, the program continues dialogue with the National Oceanic and Atmospheric Administration, the U.S. Fish and Wildlife Service, and other partners on issues related to implementation of the plan. The NAAHP is the summation of ideas on how the Federal government, in collaboration with stakeholders, should develop policies, programs, and potential regulations to address aquatic animal diseases in order to benefit aquaculture and aquatic animal resources in the United States. The USDA, the U.S. Department of Commerce, and the U.S. Department of the Interior all play a role in implementing the plan.

APHIS collaborates with Federal, State, and commercial entities to protect the health and value of U.S. farm-raised aquatic animals. In FY 2016, APHIS partnered with the National Aquaculture Association to continue work on the Commercial Aquaculture Health Program Standards (CAHPS). The CAHPS establishes a non-regulatory framework for the improvement and verification of the health of farm raised aquatic animals produced in the United States. This effort positions commercial producers in domestic and international trade markets, valued at \$1.5 billion in 2015 (National Agricultural Statistics Service), and

helps the commercial aquaculture industry demonstrate adherence to sound practices for aquatic animal health.

APHIS continues to implement CAHPS and build our nation's capacity to respond to aquatic animal disease outbreaks, support surveillance, and maintain/expand U.S. export markets. The addition of aquatic pathogen diagnostic tests to the National Animal Health Laboratory Network (NAHLN) repertoire of standardized testing in recent years has increased APHIS' ability to provide the laboratory oversight that international trading partners require. This oversight ensures that testing used to support health certificate attestations is accessible, timely, accurate, and consistent. Proficiency testing is critical to laboratory oversight. APHIS develops and administers proficiency tests for aquatic animal diseases to both NAHLN laboratories and USDA-approved laboratories performing export testing.

The program incorporated aquaculture and aquatic animal health activities into the Agency's core animal health surveillance database. Well-managed surveillance data is the foundation for animal health activities that include domestic disease control and eradication programs, support of emergency preparedness and response, and international trade. In FY 2017, the program will complete a new aquatic animal health module for APHIS' National Veterinary Accreditation Program to cover significant diseases in koi, carp, and goldfish. This module should help private veterinary practitioners identify high-consequence diseases affecting these popular pet fish species.

Overall, base funding for the Aquatic Animal Health program currently supports salaries and benefits, and other program operating costs such as travel, supplies, rent, and utilities necessary to conduct program activities.

Pay (+\$29,000)

An increase of \$29,000 for pay costs (\$8,000 for annualization of the 2017 pay increase and \$21,000 for the 2018 pay cost increase).

Program reduction (-\$29,000)

Operating costs for the program will be reduced by \$29,000.

(c) Avian Health program (\$55,235,000 and 247 staff years available in 2017).

The Avian Health program protects the U.S. poultry industry, valued at \$48 billion in 2015 (USDA - National Agricultural Statistics Service) while facilitating trade in poultry and poultry products. This program consists of the surveillance, prevention, and control of avian diseases; disease threat planning and response; international avian health activities; and modeling activities. APHIS' surveillance programs detect foreign, zoonotic, and domestic diseases that could substantially impact domestic production and the economy. Surveillance information can facilitate trade and protect public health by demonstrating that certain diseases do not exist in the poultry populations. Prevention and control programs minimize the threat of disease introductions and protect the value of poultry markets. The Agency also maintains regulations and national program standards and guidelines that direct avian health activities at the Federal, State, and Tribal levels. Maintaining these standards supports interstate and international commerce by providing assurances regarding the health of avian species and products being moved or traded. In addition, this program initiates emergency response activities when cases of avian influenza (AI) are detected. Lastly, APHIS uses models to improve the understanding of historical events, estimate future consequences, and inform strategic, logistical, and budgetary decisions by evaluating the effectiveness of varying interventions.

The National Poultry Improvement Plan (NPIP) is a cooperative Federal-State-industry program through which participants can use diagnostic technology to guard against disease incursion and enhance the marketability of poultry and poultry products. The NPIP has 49 States participating in the AI prevention and control program, with participation from more than 95 percent of commercial broiler, turkey, and egg

industries, as well as the entire poultry breeding industry. In addition, the NPIP currently has approximately 100 authorized laboratories with trained technicians approved to provide diagnostic testing. To safeguard against AI outbreaks, APHIS requested the poultry industry strengthen its biosecurity plans. In response, the NPIP delegation comprised of representatives from the poultry industry, State health entities, and USDA, adopted biosecurity principles management. This included biosecurity practices and principles designed to prevent the introduction and spread of infectious diseases, as well as an oversight system for the implementation of biosecurity principles that includes an auditing component.

The Live Bird Marketing System (LBMS) is a means of providing fresh poultry meat to consumers. In most cases, live poultry are delivered to LBMS establishments and consumers select the bird(s) of their choice. Currently 38 States and the U.S. Virgin Islands have live bird markets that participate in the Agency's AI prevention and control program. LBMS testing is vital to prevent and control the disease in markets, but also among production premises and poultry distributors that supply those markets. APHIS and our State cooperators conduct tests for AI surveillance in the LBMS. When these tests yield a presumptive positive result, APHIS' National Veterinary Services Laboratories will confirm the presence of the virus and determine the strain of AI.

APHIS' Avian Health surveillance program focuses on the early detection of Highly Pathogenic Avian Influenza (HPAI) in wild birds. In FY 2016, the Agency coordinated the collection and analysis of more than 42,000 wild bird samples to assess the potential risk of HPAI to birds of conservation concern. In addition, APHIS worked with researchers in Canada and China on HPAI surveillance and at Mississippi State University on ecological-genetic studies. The Agency tested 2,350 serum samples for exposure to Newcastle disease virus, and cultured 660 bird tissues for *Salmonella* infection in birds associated with agricultural feedlots.

In FY 2016, APHIS continued working with primary breeders in the United States to establish the U.S. H5/H7 AI Clean Compartment Classification (AICCC) for subpopulations of primary breeding turkeys and modified AICCCs for subpopulations of primary egg-type breeding chickens and primary meat-type breeding chickens. These classifications, which are based on guidelines from the World Organisation for Animal Health (OIE), add an option for producers to ensure uninterrupted trade in breeding flocks and products during an AI outbreak. In FY 2016, the NPIP drafted compartmentalization management guidelines, audit checklists, auditor requirements, and associated applications. APHIS also published these guidelines in the NPIP Program Standards.

APHIS must be able to quickly detect and address endemic, emerging, and foreign disease threats to ensure that the poultry industry maintains worldwide competitiveness. To address these threats, APHIS continues to develop comprehensive surveillance activities to optimize sampling strategies while minimizing costs. In FY 2016, APHIS funded State efforts to address significant poultry diseases of economic and zoonotic concern including *Mycoplasmosis*, infectious bronchitis, *Salmonellosis*, very virulent infectious bursal disease, and infectious laryngotracheitis. These activities enable the United States to certify to our trading partners that many classes of poultry originate from flocks that are monitored or free of diseases.

Overseas, APHIS facilitates agricultural trade, works with agricultural officials, monitors agricultural health, and supports sanitary and phytosanitary standard-setting efforts. In addition, the Agency works with the USDA Foreign Agricultural Service and the U.S. Trade Representative's Office to maintain a coordinated approach to resolving avian health issues that affect U.S. exports. Further, APHIS coordinated with the OIE and other organizations to assist with disease prevention, management, and eradication activities in HPAI-affected regions. In FY 2016, APHIS delivered 16 capacity building activities in the areas of biosecurity, poultry disease diagnostics, quality assurance, surveillance, and sampling collection. Assisting other countries reduces the risk of the disease spreading from overseas to the United States. To open markets for U.S. poultry, APHIS negotiates protocols for trade of poultry and related products. When markets close to certain States or regions in response to Low Pathogenicity Avian Influenza detections, APHIS provides science-based rationales to reopen markets, coordinates informational visits and exchanges, facilitates the U.S. industry's access to foreign decision-makers, and participates in negotiations.

APHIS sponsors and staffs the Crisis Management Center for Animal Health at the Food and Agriculture Organization (FAO) of the United Nations in Rome, Italy. This Center is an emergency response branch of FAO's Animal Health Services that helps countries respond to and contain animal disease threats. It provides assessments, guidance, and resources to enable rapid response to animal disease outbreaks in countries where the United States would have difficulties placing personnel or responding bilaterally. This approach reduces the threat of disease outbreaks from becoming widespread and evolving into pandemics. In addition, APHIS ensures that U.S. trading partners adhere to the Sanitary and Phytosanitary rules of the World Trade Organization, as well as the other relevant international standards-setting organizations, as the United States and FAO-Rome expand their cooperating relationships and establish new partnerships.

APHIS uses modeling to update its avian health program activities. In FY 2016, the Agency purchased data from a company that provides customers in the avian industries with statistical services to identify efficiency opportunities and to facilitate informed decisions. APHIS used this data to update the cost estimates in models determining indemnity values for birds. In addition, the Agency created a production version of the Animal Disease Spread Model (ADSM), and made a version available that can be used for testing and quick turnaround on correcting system flaws. The Agency also completed a beta version of ADSM with Vaccination Rings and Vaccination Priorities, and will be piloting ADSM in FY 2017 to aid State-level planning for potential HPAI outbreaks in Kansas. Having vaccination rings and different priorities for species vaccinated in the model allows the program to explore different implementation strategies for vaccination in the event of an outbreak.

Overall, base funding currently for the Avian Health program supports salaries and benefits, cooperative agreements and programmatic contracts, and other normal operating costs such as travel, supplies, rent, and utilities to conduct program activities.

Pay (+\$545,000)

An increase of \$545,000 for pay costs (\$146,000 for annualization of the 2017 pay increase and \$399,000 for the 2018 pay cost increase).

Program reduction (-\$545,000)

Operating costs for the program will be reduced by \$545,000.

(d) Cattle Health program (\$91,326,000 and 473 staff years available in 2017).

The Cattle Health program protects and improves the quality, productivity, and economic viability of the U.S. cattle and bison industry, which was valued at \$115 billion for 2015 (National Agricultural Statistics Service). The Cattle Health Program has two major goals: to rapidly detect and respond to diseases that could significantly affect the U.S. cattle and bison population and to prevent the spread of any newly detected diseases in the United States as well as endemic domestic cattle and bison diseases of concern. APHIS activities include surveillance and monitoring, disease prevention, and disease investigation and outbreak response actions. In addition, APHIS maintains regulations, national program standards, and guidelines that direct cattle health activities at the Federal, State, and Tribal level. Maintaining these standards is a vital Federal responsibility that supports interstate and international commerce by providing assurances about the health of animals and products being moved or traded. The Agency works with international trading partners to facilitate safe trade in cattle and cattle products.

APHIS conducts surveillance and monitoring activities for diseases to protect the health of U.S. cattle and facilitate trade by demonstrating to trading partners that certain diseases do not exist in the U.S. domestic cattle and bison population. These activities are designed to quickly detect foreign, emerging, and zoonotic animal diseases that could impact domestic producers and the economy; erode consumer confidence in the U.S. food supply; and/or have substantial economic impact to responding State, Tribal, and Federal animal health agencies. Quickly detecting and containing devastating diseases such as foot-and-mouth disease

(FMD) is vital. An article detailing the economic impact of a potential FMD outbreak in the United States estimated that losses climb from \$2.3 billion, if an FMD outbreak is identified at day 7, to \$69 billion if the outbreak is not detected until day 22 (Journal of Veterinary Diagnostics Investigation, 2011). Surveillance information verifies and documents that certain diseases do not exist in the cattle population, thus facilitating trade and protecting public health. Surveillance information on bovine spongiform encephalopathy (BSE) has been instrumental in allowing the United States to maintain export markets for all beef, which were worth approximately \$5.153 billion in FY 2015 (Foreign Agricultural Service). APHIS enters into cooperative agreements with State animal health and wildlife agencies and Native American Tribes to carry out surveillance and response programs.

The program's efforts have effectively addressed several issues affecting cattle health. APHIS has reduced the prevalence rate of bovine tuberculosis (TB) in domestic cattle to less than 0.001 percent. At the end of FY 2016, 49 States, 2 Territories, and 1 zone were TB accredited free, including Puerto Rico and the U.S. Virgin Islands. In addition, the Agency's BSE surveillance effort is designed to detect one BSE case in one million adult cattle with 95 percent confidence. This goal exceeds the standard required by the World Organisation for Animal Health (OIE). APHIS reduced the BSE surveillance-sampling target from 40,000 to 25,000 cattle. The Agency tested 26,538 cattle in FY 2016. According to the OIE, the United States has a negligible risk status for transmitting BSE. The Federal-State brucellosis eradication effort has eradicated bovine brucellosis from domestic cattle and bison herds. A State is given a Class Free status when all cattle and/or bison herds within the State remain free of the brucellosis infection for at least 12 months. All 50 States, the District of Columbia, Puerto Rico, and the U.S. Virgin Islands have been Class Free for this disease since July 2009. APHIS' main focus for brucellosis in livestock is the Greater Yellowstone Area because the disease is endemic there in wild elk and bison. In addition, through cooperative efforts between APHIS and the State of Texas, the Cattle Health program has prevented cattle fever tick (CFT) from spreading within the United States. This program's goal for FY 2018 is to continue to eliminate all CFT outbreaks that occur outside the quarantine area within 12 months.

APHIS also conducts preventive programs to exclude exotic pests and diseases from the country. The Agency works with neighboring countries to prevent the entrance of cattle diseases such as bovine TB, FMD, BSE, and screwworm. USDA estimates that the benefits for U.S. livestock producers remaining free of screwworm to be approximately \$796 million a year, resulting in \$2.8 billion a year in general economy benefits to the wider economy. APHIS partners with screwworm-free nations to maintain import protocols and quarantine processes to prevent infested animals entering the United States. In addition, APHIS works with the Panamanian government to maintain a screwworm prevention barrier at the Darien Gap and to be prepared to respond to New World Screwworm outbreaks in the U.S. such as the recent Florida Keys event.

Funding for this program supports the Agency's capacity to detect, prepare for, and respond to cattle health issues. APHIS will continue these activities in FY 2018, reducing the likelihood of disease spread that would result in larger and more serious disease outbreaks.

Overall, base funding for the Cattle Health Program currently supports salaries and benefits, cooperative and programmatic contracts, and other normal operating costs such as travel, supplies, rent, and utilities to conduct program activities.

Pay (+\$1,044,000)

An increase of \$1,044,000 for pay costs (\$279,000 for annualization of the 2017 pay increase and \$765,000 for the 2018 pay cost increase).

Program reduction (-\$1,044,000)

Operating costs for the program will be reduced by \$1,044,000.

(e) Equine, Cervid and Small Ruminant Health program (\$19,463,000 and 120 staff years available in 2017).

The Equine, Cervid, and Small Ruminant Health (ECSRH) program protects the health and improves the quality, productivity, and economic viability of the equine, cervid, sheep, and goat industries. Program activities include monitoring and surveillance, investigation and response, and disease prevention and preparedness actions taken when animal health issues are identified. The Agency's monitoring and surveillance activities detect foreign, emerging, zoonotic, and domestic diseases that could substantially impact the economy. APHIS also works with international and domestic trading partners to facilitate safe trade in equine, cervids, and small ruminants and their products and ensure that cases of diseases of trade concern are reported to the World Organisation for Animal Health. The ECSRH Program conducts disease surveillance and/or monitoring for the following diseases: scrapie, bovine tuberculosis (TB), chronic wasting disease (CWD), vesicular stomatitis virus, contagious equine metritis, Eastern equine encephalitis, Western equine encephalitis, equine herpes virus, equine piroplasmiasis, equine infectious anemia (EIA), and West Nile virus.

Scrapie is a fatal, degenerative disease that affects the central nervous system of sheep and goats. The industry loss due to scrapie is estimated to be \$10 to \$20 million annually, not including lost market opportunities due to export restrictions. The National Scrapie Eradication Program's efforts focus on improving the health of the national sheep flock and goat herd, relieving sheep and goat producers of scrapie-associated economic losses and increasing international marketing opportunities. Since 2003, the percentage of cull sheep sampled at slaughter that tested positive for classical scrapie has decreased by 99 percent. As of September 30, 2016, the percent of cull sheep tested that were found positive at slaughter and adjusted for face color was 0.001 percent.

To aid in the eradication of TB, the ECSRH program provides a voluntary herd accreditation program for captive cervids and requires testing of cervids before interstate movement. In FY 2016, the program tested an estimated 10,750 animals and identified 18 TB suspects. Testing program species for these purposes contributes to national TB surveillance and enhances the detection of bovine tuberculosis. In addition, routine tuberculin skin testing of cattle, bison, and cervids as required by national or State regulations also contributes to national TB surveillance. Data from live animal testing by accredited veterinarians contribute to national TB surveillance and increase the level of detection.

The National CWD Program's voluntary herd certification efforts help States, Tribes, and the cervid industry control CWD in farmed cervids by allowing the interstate movement only from certified herds considered to be low risk. These disease control efforts support the domestic and international marketability of U.S. farmed cervid herds. Moreover, control efforts contain and manage the disease from spreading to other livestock, such as cattle herds. In FY 2016, the program tested 14,503 farmed cervids for CWD and identified seven new CWD positive farmed cervid herds – two white-tail deer herds in Texas, three white-tail deer herds in Wisconsin, one elk herd in Colorado and one elk herd in Iowa.

APHIS protects the equine industry by helping State animal health officials monitor equine diseases that threaten animal and human health, such as EIA and equine piroplasmiasis. The U.S. equine industry is a \$40 billion enterprise with an estimated \$104 billion of indirect economic impact (American Horse Council, 2012). The EIA and equine piroplasmiasis diseases are transmitted via biting arthropods, and no vaccine is currently available, making surveillance efforts more meaningful. EIA control efforts have been very successful; between 1972 and 2016, the rate of reactors among the tested population declined from 3.8 percent to 0.00004 percent. In FY 2016, positive detections identified during routine surveillance for EIA, and equine piroplasmiasis led to investigations and rapid responses to each disease.

Overall, base funding for the Equine, Cervid, and Small Ruminant program currently supports salaries and benefits, contracts and agreements, equipment, and other normal operating costs such as supplies, rent, and travel to conduct program activities.

Pay (+\$265,000)

An increase of \$265,000 for pay costs (\$71,000 for annualization of the 2017 pay increase and \$194,000 for the 2018 pay cost increase).

Program Reduction (-\$265,000)

Operating costs for the program will be reduced by \$265,000.

(f) National Veterinary Stockpile program (\$3,965,000 and 7 staff years available in 2017).

The National Veterinary Stockpile (NVS) serves as the primary source of materials, supplies, and equipment for the response to, control of, and containment of significant domestic and foreign animal disease outbreaks. NVS has two primary objectives: to deploy within 24 hours of approval countermeasures against the most damaging animal diseases including highly pathogenic avian influenza, foot-and-mouth disease, exotic Newcastle disease, and classical swine fever and to assist States, Tribes, and Territories with planning, training, and exercising the rapid request, receipt, processing, and distribution of NVS countermeasures during an animal health event.

To maximize cost-efficiency and response capabilities, APHIS personnel work with academia and industry modelers to develop a scientifically defensible estimate of the quantity of supplies to stockpile for each of the high-consequence diseases to which the Agency is prepared to respond, and continuously evaluate supply chains seeking opportunities to reduce delivery time. The NVS program personnel also seeks scientific input from Federal agencies on commercially available veterinary countermeasures such as vaccines, and develops criteria for deployment and determines ways to leverage stockpiles. In 2018, the program will maintain its capabilities to address high consequence diseases, effectively manage its inventories, and continue to seek ways to best address the Agency's response capabilities by quickly deploying animal health response resources. Also in FY 2018, the program will continue monitoring new technologies and conducting market research to enhance capabilities in the areas of depopulation, disposal, and decontamination. The NVS will add vaccine and therapeutic countermeasures for additional animal disease threats as technologies become available.

The stockpile's capacity is commensurate with the resource level. Without NVS' efforts, outbreak response efforts would quickly deplete State and industry response inventories and overwhelm the private sector, leading to larger and more serious animal disease outbreaks.

Overall, base funding for the NVS program currently supports salaries and benefits, supplies, and contracts and agreements, as well as other normal operating costs like rent, travel, and equipment to conduct program activities.

Pay (+\$15,000)

An increase of \$15,000 for pay costs (\$4,000 for annualization of the 2017 pay increase and \$11,000 for the 2018 pay cost increase).

Program reduction (-\$15,000)

Operating costs for the program will be reduced by \$15,000.

(g) Swine Health program (\$24,753,000 and 146 staff years available in 2017).

APHIS' Swine Health program protects the health and improves the quality, productivity, and economic viability of the swine industry. The 2015 production value of the swine industry was approximately \$19 billion (based on preliminary estimates by the National Agricultural Statistics Service). In addition, the program facilitates trade in swine and pork products, and addresses swine health issues at the human-swine

interface and between wildlife and domestic swine. APHIS activities include: 1) comprehensive and integrated swine surveillance, 2) emergency preparedness and response planning, 3) disease investigation and control activities, 4) zoonotic disease prevention and response, 5) swine health studies and special projects, 6) collaborations on emerging issues, and 7) outreach and communication with stakeholders. In addition, the Agency maintains regulatory and programmatic guidelines that direct activities at the Federal, State, and Tribal levels. Establishing and maintaining national standards support interstate and international commerce by ensuring the health of animals and products being moved or traded.

APHIS conducts surveillance activities to detect foreign, emerging, zoonotic, and domestic swine diseases that could substantially affect domestic producers and the national economy. The Agency collects swine samples from various surveillance streams for multiple diseases as part of comprehensive integrated surveillance. In FY 2016, APHIS collected samples for pseudorabies virus (PRV), swine brucellosis, and classical swine fever (CSF). In addition, the Agency continued testing swine samples for influenzas submitted to diagnostic laboratories. Surveillance testing supports the swine industry by assuring trading partners and other stakeholders of the status of swine diseases in the United States and demonstrates that the United States is free from and can rapidly detect foreign animal diseases.

APHIS has the responsibility under the Swine Health Protection Act to license and inspect swine production facilities that feed cooked garbage to swine, and to conduct searches for unlicensed facilities that feed raw garbage to swine. This practice could transmit infectious diseases such as African swine fever, foot-and-mouth disease, or CSF to swine. By ensuring that food waste fed to swine does not contain active disease organisms that threaten domestic swine, APHIS protects the commerce, health, and welfare of U.S. citizens. APHIS will continue to inspect these types of facilities in FY 2018.

In FY 2016, no commercial herds were identified as having PRV or swine brucellosis. However, on occasion some non-commercial herds were identified following exposure to feral swine. In all positive cases, APHIS and States investigate and quarantine infected herds, conduct routine testing to determine prevalence in the herd, and perform whole herd depopulation or removal of infected animals through a test-and-removal strategy to eliminate the disease from these herds. These response efforts protect commercial herds that may be exposed to infected backyard herds.

APHIS, States/Tribes, and industry collaborate regularly on policy and guidelines. The Agency also works with international trading partners to facilitate safe trade in swine and swine products. APHIS enters into cooperative agreements with State animal health and wildlife agencies and Native American Tribes, to carry out surveillance and response programs.

Overall, base funding for the Swine Health program currently supports salaries and benefits, contracts, and agreements, as well as other normal operating costs such as travel, supplies, and rent, and utilities.

Pay (+\$322,000)

An increase of \$322,000 for pay costs (\$86,000 for annualization of the 2017 pay increase and \$236,000 for the 2018 pay cost increase).

Program reduction (-\$322,000)

Operating costs for the program will be reduced by \$322,000.

(h) Veterinary Biologics program (\$16,386,000 and 101 staff years available in 2017).

APHIS' Center for Veterinary Biologics (CVB) regulates veterinary biological products under the Virus-Serum-Toxin Act to ensure that they are pure, safe, potent, and effective. These products, which include vaccines, bacterins, antisera, diagnostic test kits, and analogous products are developed to prevent, diagnose, and treat animal diseases. They are used in all of the major farmed species, as well as horses, dogs, cats, and other pets. The CVB develops regulations concerning the production and licensing of

veterinary biologics, evaluates pre-licensing dossiers and issuance of licenses and permits, tests products submitted for licensure, inspects facilities and products, approves product certifications, investigates non-compliance, and conducts post-marketing surveillance to ensure that manufacturers comply with all laws, regulations, and policies relating to this industry. This comprehensive regulatory approach is the most effective way to ensure that only quality, Federally-licensed, veterinary biological products are available to U.S. consumers, and plays an essential role in protecting animal health and agriculture.

APHIS licenses and inspects facilities to ensure that all veterinary biologics produced and distributed in, or imported into, the United States are of the highest quality, and are not worthless, contaminated, dangerous, or harmful. Before the Agency began regulating veterinary biologics, farmers and animal health officials found products to be ineffective or contaminated with harmful diseases, including foreign animal diseases (FADs). Licensed products used for domestic animal diseases prevent illness and lost production in livestock; these products are also used to control and prevent zoonotic diseases such as rabies and influenza. In FY 2016, APHIS received 111 applications for new and renewal licenses and issued 40 licenses/permits for the prevention, diagnosis, management, or cure of existing or new/emerging animal diseases. Also in FY 2016, the Agency licensed 96 manufacturers for more than 1,680 active veterinary biological product licenses/permits for the control of 223 animal diseases. This represents an increase of three diseases from FY 2015, and APHIS plans to maintain this approximate level for fiscal years 2017 and 2018. These products are critical for protecting American agriculture, facilitating trade, and enhancing agricultural economic opportunities. For example, the United States experienced a large outbreak of highly pathogenic avian influenza in FY 2015. Since then, CVB has issued three conditional licenses for vaccines to help control the virus if APHIS determines their use is warranted.

The United States and foreign countries require import and export certificates to certify that products are prepared according to the Virus-Serum-Toxin Act. In FY 2016, APHIS reviewed/processed 1,040 export certificates for veterinary biological products, and reviewed/processed 3,811 certificates of licensing and inspection. APHIS processed all export certificates within 4 days, and processed all certificates of licensing and inspection within 28 days. Timely processing helps ensure that markets are accessible for manufacturers who export their product. APHIS also helped to ensure there were no FAD events related to the importation of 138 million biologics doses. The Agency's main strategy is to gain and maintain compliance with its regulations by educating both licensed and unlicensed entities. APHIS annually inspects an average of at least 50 biologics manufacturing sites to assure compliance. More than 99 percent of the unlicensed entities investigated either move towards licensure of the product in question or cease the objectionable activity. In FY 2016, APHIS conducted 62 on-site inspections, 37 percent of which supported a new establishment/facility or product license for the industry. Also in FY 2016, APHIS performed 83 regulatory actions, issued 51 violation notices, and conducted 22 investigations of possible regulation violations. In addition, the Agency received 314 adverse event reports regarding veterinary biological products. These events, which may or may not be caused by the product, occur after the product is used. APHIS gathers this information to better learn how products are used in field conditions and applied to the evaluation process to assure that pure, safe, potent, and efficacious products are available.

APHIS works with domestic agricultural research organizations, veterinary biologics manufacturers, commodity producers, and veterinary diagnostic organizations to address animal disease issues from a holistic approach. The Agency also gathers input from organizations such as the American Veterinary Medical Association, and international groups such as the Veterinary International Cooperation on Harmonization (VICH) of Technical Requirements for the Registration of Veterinary Medicinal Products, to harmonize veterinary biologics standards, promoting the industry's economic viability abroad. The VICH is a World Organisation for Animal Health-sponsored committee that reviews the international harmonization of technical requirements for veterinary medicinal products. APHIS also cooperates with veterinarians and the biologics industry to monitor any undesirable outcomes from using animal vaccines and other biological products. This surveillance serves as an alert system for detecting the possibility that a product may not be performing as intended. It also provides essential baseline information about the behavior of a vaccine or other biological product under everyday field conditions.

Overall, base funding for the Veterinary Biologics program currently supports salaries and benefits of personnel, and contracts and agreements, as well as normal operating costs such as supplies, travel, rent, and utilities to conduct program activities.

Pay (+\$223,000)

An increase of \$223,000 for pay costs (\$60,000 for annualization of the 2017 pay increase and \$163,000 for the 2018 pay cost increase).

Program reduction (-\$223,000)

Operating costs for the program will be reduced by \$223,000.

(i) Veterinary Diagnostics program (\$36,471,000 and 151 staff years available in 2017).

Laboratory and diagnostic services are essential components of the U.S. animal health infrastructure. The Veterinary Diagnostics line item provides partial funding for the National Veterinary Services Laboratories (NVSL), which consists of laboratories in Ames, Iowa, and at Plum Island, New York. The NVSL is recognized by the World Organisation for Animal Health and the Food and Agriculture Organization as an international reference laboratory for significant animal diseases such as highly pathogenic avian influenza and foot-and-mouth disease (FMD). The NVSL provides diagnostic test services ranging from a single laboratory test to comprehensive laboratory services covering many pathogens for suspected outbreaks of domestic and foreign animal diseases (FADs). This line item also supports the National Animal Health Laboratory Network (NAHLN). The NAHLN is a coordinated animal disease surveillance and monitoring system that integrates and interconnects Federal and State laboratory resources and uses standardized diagnostic protocols and procedures to improve the security of the nation's livestock by providing disease diagnostics both daily and during outbreaks. It serves as a vital early warning system for foreign and emerging animal diseases. Currently, the NAHLN consists of 58 State and university laboratories and 4 Federal laboratories in 42 States. These laboratories work with the NVSL to test for several economically devastating and/or potentially zoonotic diseases such as FMD, influenza in avian and swine species, bovine spongiform encephalopathy, and swine enteric coronavirus diseases.

Diagnostic testing and confirmation of surveillance samples improves the security of the nation's livestock. In addition, NVSL is often on the forefront of emerging and re-emerging diseases including porcine epidemic diarrhea, Seneca Valley A virus (senecavirus A), bluetongue, and equine encephalitic diseases such as West Nile virus. In FY 2016, APHIS managed more than 402,500 diagnostic tests and 43,100 accessions (one or more diagnostic samples received from the same submitter on the same day). The laboratories produced and provided more than 106,300 reagents representing more than 600 types of products used in veterinary diagnostic testing. Many of these products are only available to stakeholders through APHIS. In addition, the Agency validated new test methods and platforms, and provided training and assistance to domestic and international laboratories.

This program funds FAD investigations through NVSL's Foreign Animal Disease Diagnostic Laboratory (FADDL). In FY 2016, NVSL participated in 1,124 FAD investigations, compared with 1,059 in FY 2015, as well as supported international capacity building activities in several countries. The increased number of investigations was due to an outbreak of Seneca Valley virus A in swine, whose symptoms mimic FMD. APHIS tested many samples from the outbreak for multiple FADs, especially as new regions or locations were identified.

International Organization for Standardization (ISO)-accredited bodies conduct annual peer reviews and external audits for this program. Based on these reviews, APHIS takes corrective actions and monitors improvements made to support the laboratories' internationally-recognized ISO 17025-accreditation for quality. The program also participates in international proficiency panel checks to compare the quality of testing techniques used by APHIS to those used by other countries.

APHIS conducts proficiency testing of Federal, State, and university sponsored laboratories to ensure that they use standardized, rapid diagnostic techniques and to maintain the credibility of U.S. diagnostic test results in the international marketplace. In FY 2016, APHIS provided 32 types of proficiency panels to international, Federal, State, and private laboratories. These are laboratories both within and outside the NAHLN network. APHIS made the necessary controls and reference strains available for approximately 200 diseases, including FADs, to help other laboratories develop and validate diagnostic tests. User fees cover the cost of some reagents and proficiency panels.

APHIS continues to work with the Department of Homeland Security and USDA's Agricultural Research Service to plan for a transition from the aging Plum Island Animal Disease Center (PIADC) at Orient Point, New York, to the state-of-the-art National Bio and Agro-defense Facility (NBAF) currently being built in Manhattan, Kansas. The PIADC, home to the FADDL, is the only U.S. laboratory permitted to work with FMD. FADDL also is the custodian of the North American FMD Vaccine Bank. The NBAF will be a key national asset to protect the U.S. animal agriculture industry. It will provide larger and more technologically sophisticated laboratory facilities, including biosafety level (BSL)-4 biocontainment capacity, which will exceed PIADC's BSL-3 laboratory capacity. The BSL-4 capacity will enable USDA to conduct diagnostics, and research and develop countermeasures for high-consequence, potentially lethal zoonotic livestock diseases such as those caused by Ebola virus, Hendra virus, and Nipah virus. USDA and DHS have developed five working groups to address transition planning: 1) Facility Advisory; 2) Operational Standup; 3) Partnership Development; 4) Research & Training; and 5) Budget Formulation for equipment, personnel, and other transitions costs. Planning efforts will continue until the facility is online and fully operational in 2023.

Overall, base funding for the Veterinary Diagnostics program currently supports salaries and benefits, contracts, and cooperative agreements, as well as other normal operating costs such as equipment, supplies, travel, rent, and utilities to conduct program activities.

Pay (+\$333,000)

An increase of \$333,000 for pay costs (\$89,000 for annualization of the 2017 pay increase and \$244,000 for the 2018 pay cost increase).

Program reduction (-\$333,000)

Operating costs for the program will be reduced by \$333,000.

(j) Zoonotic Disease Management program (\$9,505,000 and 45 staff years available in 2017).

The Zoonotic Disease Management (ZDM) program enhances State, national, and international collaborative efforts to promote healthy animals, people, and eco-systems. This integrated approach is known as "One Health." Zoonotic diseases are those that pass between animals and people. Most new and emerging human pathogens are zoonotic, and are thought to have originated from animals. APHIS provides national leadership in addressing the animal health component of One Health by contributing animal health expertise, infrastructure, and networks. The Agency develops strategies, policies, and training programs to help animal health stakeholders engage with their public health counterparts by providing communication guidance.

The ZDM program monitors national and international environments for health events that may benefit from APHIS involvement. APHIS' activities extend beyond zoonotic agents to include antimicrobial resistance (AMR), food safety, chemical contamination of animals through the environment or feed, residues of veterinary drugs, and response to natural disasters to impede the spread of diseases. Human disease outbreaks in recent years of Ebola, avian influenza, and Middle East Respiratory Syndrome, highlight the challenges in the global response to emerging animal diseases with human pandemic potential. APHIS promotes an all-hazards approach to strengthening pandemic and animal disease preparedness, surveillance, and response. By using this approach rather than focusing on a specific disease,

the Agency can be prepared for various emerging diseases. APHIS works with the Department of Health and Human Services' Centers for Disease Control and Prevention to address animal health components of zoonotic diseases. In addition, the Agency provides leadership in the North American Plan for Animal and Pandemic Influenza, strengthening preparedness and response capabilities for human and animal health in Mexico, Canada, and the United States.

In addition, the ZDM program engages in Preharvest Food Safety (PHFS) efforts, which involve on-farm interventions to reduce the risk of foodborne diseases in humans. APHIS works with stakeholders to identify risk factors, as well as on-farm practices that can enhance PHFS. APHIS' National Animal Health Monitoring System collects data about select potential foodborne pathogens and uses this data to provide benchmarks and identify trends. APHIS also works with producers to provide voluntary, on-farm consultation on PHFS.

AMR, as it relates to the ZDM program, is the ability of a microbe in an animal to resist the effects of medication previously used to treat them. As part of the National Strategy for Combating Antibiotic Resistant Bacteria, APHIS works with other USDA agencies to develop mitigation strategies to limit or reduce AMR prevalence. This strategy covers a broad array of potential government efforts to address AMR in human and animal health including surveillance at the farm level, collection of antimicrobial drug use data, and efforts to promote stewardship of antimicrobial drugs by animal owners and veterinarians. APHIS works with State and Federal partners, veterinarians, and producers to promote the judicious use of antimicrobials, which will support a strong, healthy, and thriving U.S. animal-agriculture system as well as public health.

Overall, base funding for the ZDM program currently supports salaries and benefits, as well as other normal operating expenses such as travel, supplies, equipment, and rent, and utilities to conduct program activities.

Pay (+\$99,000)

An increase of \$99,000 for pay costs (\$26,000 for annualization of the 2017 pay increase and \$73,000 for the 2018 pay cost increase).

Program reduction (-\$99,000)

Operating costs for the program will be reduced by \$99,000.

A decrease of \$38,062,000 and 106 staff years for Safeguarding and Emergency Preparedness/Response – Plant Health

(k) Agriculture Quarantine Inspection program (\$27,847,000 and 362 staff years available in 2017).

APHIS conducts pre-departure agricultural quarantine inspections of passengers and cargo traveling from Hawaii and Puerto Rico to the continental United States to prevent the introduction of non-native agricultural pests and diseases into the mainland. Hawaii and Puerto Rico have tropical climates with distinct ecosystems and pests. For example, a variety of economically devastating fruit flies – particularly the Mediterranean fruit fly (Medfly) and Oriental fruit fly – and scale pests are present in Hawaii, and Puerto Rico experienced its first Medfly outbreak in FY 2015, along with an outbreak of the old world bollworm. These pests are easily carried long distances on fruits and other commodities and would cause significant economic damage to the mainland United States. In addition to the citrus industry that may be at risk (with a production value of more than \$3 billion, according to USDA's National Agricultural Statistics Service, or NASS, Citrus Fruits 2016 Summary), cut flower and nursery stock production is also at risk from the pests and diseases present in Hawaii and Puerto Rico. Together, cut flower and nursery stock have a production value of more than \$4 billion (NASS Census of Horticultural Specialties 2014). Additionally, two significant cotton pests (pink bollworm and the cottonseed bug) are present in Puerto Rico that could be brought into the United States on cargo shipments without an effective inspection

program. The pre-departure inspection program facilitates the movement of travelers and cargo while preventing the entry of these pests and diseases from affecting agricultural production in the continental United States.

Because of the high volume of travelers from Hawaii and Puerto Rico to the continental United States along with the risks associated with numerous fruits, vegetables, and animal products from these areas, APHIS inspects all baggage of passengers leaving these islands (approximately 11.9 million passengers in FY 2016). The program has maintained a passenger compliance rate of more than 97 percent for the last several years. The program partners with industry groups and State and Commonwealth counterparts to facilitate the safe movement of cargo. In Puerto Rico, the program oversees treatments for mangoes, cotton, and a variety of other commodities to allow them to be transported and sold in the continental United States. In Hawaii, the State Department of Agriculture conducts nursery inspections and certifies nursery stock for shipment to the U.S. mainland.

The Agriculture Quarantine Inspection (AQI) program keeps interstate trade flowing smoothly and safely and allows for efficient processing of tourists, protecting both the economies of Hawaii and Puerto Rico and the agricultural health of the continental United States. The program reduces the impact of agricultural pests and diseases, and protects and enhances plant health. In doing so, it minimizes production losses and pest control costs, and preserves export markets for U.S. agricultural products. Without this program, the risk of pest or disease introduction from Hawaii and Puerto Rico to the mainland United States would greatly increase. Additionally, certain commodities would not be allowed entry to the continental United States without the inspections and treatments provided by the program, impacting Hawaiian and Puerto Rican producers. Maintaining the safeguards this program provides is essential, especially considering the increasing U.S. consumer demand for year-round fruits and vegetables.

Overall, base funding for the AQI program currently supports salaries and benefits of inspectors and other staff, as well as normal operating expenses such as rent, utilities, travel, and supplies to conduct program activities.

Pay (+\$800,000)

An increase of \$800,000 for pay costs (\$214,000 for annualization of the 2017 pay increase and \$586,000 for the 2018 pay cost increase).

Program reduction (-\$800,000)

Operating costs for the program will be reduced by \$800,000.

- (l) A decrease of \$4,498,000 for the Cotton Pests program (\$11,498,000 and 51 staff years available in 2017).

The Cotton Pests program, in cooperation with States, the cotton industry, and Mexico, has nearly eradicated the boll weevil and pink bollworm (PBW) from all cotton-producing areas of the United States and northern Mexico. For decades, these pests have cost cotton growers tens of millions of dollars each year in control costs and crop losses. APHIS provides national coordination, operational oversight, technology development (such as sterile PBW moths), and a portion of program funding. APHIS' partners have provided more than two-thirds of the funding for the boll weevil eradication effort and most of the operational funds for PBW eradication. The program also maintains capabilities to address other cotton pests that could enter the United States. In addition, APHIS provides technical advice on trapping and treatment protocols to its partners in Mexico to aid their efforts to eradicate boll weevil and PBW. Without continued Federal funding, support and technical expertise for the final phase of the program, eradication would not be possible, and previously eradicated cotton acreage would be vulnerable to reinfestation. Additionally, U.S. cotton production may be at risk of new pests approaching the country through the Caribbean Basin and Mexico.

APHIS' Cotton Pests program directly protects approximately 5.5 million acres of cotton production worth \$1.6 billion in Texas (where the last remaining boll weevil population is present) and indirectly protects remaining cotton production nationwide (approximately 4.5 million acres with a production value of \$1.3 billion). The Lower Rio Grande Valley (LRGV) is the last zone within the United States where active boll weevil eradication efforts continue. The LRGV is impacted by the neighboring Mexican cotton producing state of Tamaulipas and the area's security issues. Inclement tropical weather also has hindered progress in the LRGV region by providing a yearlong growing season favoring volunteer cotton plants, which are cotton plants growing outside the intended planted and cultivated field. The program will continue monitoring for BW to ensure the program quickly detects any reintroductions while continuing to fully eradicate the pest in the upcoming years.

In the United States, before we undertook an eradication program, the PBW commonly caused cotton losses of 20 percent or more in affected areas. In 1967, APHIS and cooperators in California began the PBW control program to protect the San Joaquin Valley while continuing to develop eradication tools. In 1997, APHIS, along with cooperative program partners, implemented an effective PBW eradication program in Southern California, Arizona, large areas of New Mexico, and the El Paso/Trans Pecos region of Texas. Based on completing the confirmation phase of eradication, with no PBW detection in the last four years, APHIS anticipates that PBW eradication can be declared within all commercial cotton growing areas within the United States by the end of FY 2017.

By controlling and eventually eradicating these two devastating cotton pests, APHIS protects continued export opportunities for U.S. cotton growers and significantly lowers production costs. A Texas A & M study estimates the benefits of eradicating just the boll weevil at \$2.06 billion (in 2012 dollars) since 1996. Most of the direct benefits to producers derive from increased yields, improved cotton quality, and lower insect control costs.

In FY 2018, APHIS will continue to reduce the BW population in the LRGV and partner with the U.S. cotton industry on BW surveillance efforts for all U.S. cotton production. APHIS will also partner with the Mexican BW eradication program to provide technical assistance and funding for their parallel program to the LRGV program. The Agency also plans to continue working with the U.S. cotton industry post-PBW eradication to monitor, at a lower level, the Southwest part of the United States to ensure any reintroductions of the pest would be detected and addressed.

Overall, base funding for the Cotton Pest program currently supports salaries and benefits, cooperative agreements and programmatic contracts, as well as other normal operating expenses such as travel, rent, and utilities to conduct program activities.

Reduction related to progress toward eradicating PBW (-\$4,498,000)

APHIS is requesting a decrease of \$4.498 million for the Cotton Pests program. The program's progress toward eradicating PBW will result in fewer resources needed in FY 2018. The program will continue to monitor for the presence of PBW and maintain a sterile PBW moth colony, in case a reinfestation occurs. The program will continue to address the boll weevil in areas of Texas near the border with Mexico.

Pay (+\$113,000)

An increase of \$113,000 for pay costs (\$30,000 for annualization of the 2017 pay increase and \$83,000 for the 2018 pay cost increase).

Program reduction (-\$113,000)

Operating costs for the program will be reduced by \$113,000.

(m) Field Crop and Rangeland Ecosystem Pests program (\$8,809,000 and 77 staff years available in 2017).

The Field Crop and Rangeland Ecosystem Pests (FCREP) program protects U.S. agricultural crops and rangelands from the establishment or spread of invasive or economically significant pests. In addition, it facilitates safe international trade and domestic commerce, preserves economic opportunities for U.S. farmers, and fosters healthy ecosystems in rangelands and other areas. APHIS conducts survey and suppression activities in western States to reduce grasshopper and Mormon cricket (GMC) infestations that could cause significant economic losses for livestock producers by requiring them to buy supplemental feed or sell their livestock at reduced prices. In addition, the Agency develops treatments for land managers to remove imported fire ant (IFA) from their products and prevent re-infestation; conducts regulatory activities to prevent Karnal bunt (KB) and IFA from “hitchhiking” on regulated articles (i.e., nursery stock and farm equipment) to uninfested areas of the United States and foreign countries through trade; and, conducts survey, treatment, and regulatory activities for witchweed infestations in North and South Carolina to protect U.S. corn and sorghum crops. The FCREP program prevents an estimated \$6.3 billion annually in damage to agriculture, industry, and homeowners. This program directly protects more than 230,000 acres of wheat and corn worth more than \$18 million. It indirectly protects all U.S. wheat and corn production, which was worth approximately \$59 billion in FY 2015, from the spread of KB and witchweed (National Agricultural Statistics Service, NASS, Crop Values 2015 Summary).

When grasshopper populations reach outbreak levels, they can decimate grasslands. APHIS’ GMC program monitors and protects 661 million acres of rangeland each year worth a total of nearly \$8.7 billion according to a 2012 economic analysis prepared by University of Wyoming researchers through a cooperative agreement with APHIS. In FY 2016, APHIS identified significant grasshopper populations in areas of Montana, including Northern Cheyenne, Crow, and Flathead reservations, and smaller outbreaks in other States. The Agency conducted treatments protecting 370,419 acres overall and preventing larger outbreaks from developing next year. The program also addresses witchweed, a parasitic plant that can significantly damage corn, sorghum, and sugarcane. If witchweed were to spread throughout the Corn Belt, crop yields for corn and sorghum could decrease by 10 percent and trade in commodities from these areas could be negatively impacted. Predictive models published in scientific journals, suggest that APHIS’ IFA program is preventing up to 10 additional States from becoming infested. APHIS will continue conducting annual surveys and other activities to manage these pests in FY 2018.

Also as part of the FCREP program, APHIS coordinates an annual voluntary survey of the grain delivered to elevators to check for KB across the country and conducts regulatory activities to prevent the spread of the disease from the remaining infested area in Arizona. APHIS is able to issue export certificates that are required by countries importing U.S. wheat due to our quarantine and survey efforts. These certificates demonstrate to trading partners the safety of U.S. wheat exports, retaining export markets and facilitating wheat movement into international markets. If there was an interruption of the program’s ability to certify wheat exports, USDA’s Economic Research Service estimated in 2010 that there would be a cumulative reduction of national net farm income of \$8 billion over the next eight years. If KB funding was eliminated, the disease could enter the grain market system and directly impact almost every State. Many trading partners will not accept U.S. wheat exports unless the commodity is certified to be from areas where KB is not known to occur. Working with cooperators, APHIS has reduced the wheat production areas regulated for KB from all or portions of four States to approximately 214,000 acres in Arizona since 1996. APHIS will continue survey and regulatory activities aimed at keeping KB from causing damage and/or trade disruptions in FY 2018.

APHIS cooperates with Federal, State, Tribal, and local agencies, organizations, and institutions to conduct the program’s activities. These cooperators are held accountable for meeting their obligations through the terms of cooperative agreements, which include work and financial plans that APHIS and the cooperators develop that specify when accomplishment reports and results must be submitted. APHIS provides national coordination, threat assessment, development of pest control strategies and regulatory requirements, and pest inspections.

Overall, base funding for the Field Crop and Rangeland Ecosystem Pests program currently supports salaries and benefits, cooperative agreements, and programmatic contracts. Other funding supports normal operating expenses such as rent, utilities, travel, supplies, and equipment to conduct program activities.

Pay (+\$170,000)

An increase of \$170,000 for pay costs (\$45,000 for annualization of the 2017 pay increase and \$125,000 for the 2018 pay cost increase).

Program reduction (-\$170,000)

Operating costs for the program will be reduced by \$170,000.

(n) Pest Detection program (\$27,394,000 and 190 staff years available in 2017).

The goal of the Pest Detection Program is to document the distribution of plant pests and diseases of Federal regulatory significance in the United States. The program serves as the early warning system for the detection of plant pests of economic and environmental significance. The information provides the basis for APHIS' emergency response, regulatory efforts, and pest management programs that preserve economic opportunities for farmers (i.e., interstate commerce and international trade) and safeguards U.S. agricultural and natural resources. The program uses a multi-pronged strategy that includes: identifying and prioritizing plant pest and disease threats; using scientifically sound pest diagnostics and survey protocols; procuring essential survey materials (traps, lures, etc.); conducting pest surveys; providing direction and support for survey data management and quality control; posting survey results to the Agency's website to provide a clear distribution of pests and identify pest-free areas on a timely basis; and, notifying States of significant pest detections through established protocols. APHIS works with Federal agencies, State departments of agriculture, Tribes, academic institutions, and industry partners to conduct these program activities. APHIS and its State cooperators carry out surveys through the Cooperative Agricultural Pest Survey program.

APHIS provides national coordination for the program and develops policies and procedures for commodity-based and resource-based surveys. These surveys enable APHIS and cooperators to target high-risk hosts and commodities, gather data about pests specific to a commodity, and provide accurate assessments of pest distribution, including pest-free areas. Negative data from Pest Detection surveys for globally important pests such as European grapevine moth and Khapra beetle, to name a few, supports U.S. market access for several important commodities by demonstrating that the pests are not present. Early pest detection is important to avert economic and environmental damage; once a pest becomes established or spreads significantly, the mitigation costs can reach millions of dollars, in addition to lost farm revenues and damage to ecosystems. Additionally, while many entities are involved in protecting crops and resources, APHIS verifies that U.S. products do not pose risks to other countries. For example, when the pale cyst nematode was first detected in Idaho (through a Pest Detection survey), the program had data demonstrating negative survey results in other potato-producing States that kept export markets open for U.S. potatoes. According to the National Agricultural Statistics Service (NASS), the value of the market that remained open was \$183 million in 2015 (NASS Crop Values 2015 Summary). Without the Pest Detection funding, APHIS would not be able to conduct surveys for high-risk pests or provide funding to cooperators for these surveys. As a result of APHIS' funding, highly skilled, national cadres of surveyors are in the field on a daily basis looking for high-risk pests. In FY 2016, the program and its cooperators conducted surveys for 250 individual pests, pathogens, and noxious weeds, exceeding its goal of 210. The program is also conducting 262 commodity- and taxon-based surveys, with an average of more than 5 pests per survey.

The Pest Detection program communicates and develops partnerships through cooperative agreements with State departments of agriculture and natural resources, universities, industry partners, tribal and local governments and communities, non-profit organizations, and individuals in all 50 states. These entities have common objectives, and initiate activities to safeguard agriculture and the environment from the

introduction of harmful plant pests, and to facilitate safe trade by demonstrating absence of pests of phytosanitary significance. Parties are held accountable through required reporting of activities.

In FY 2018, the program and its cooperators will conduct surveys for a minimum of 230 individual pests, pathogens, and noxious weeds, as well as conduct 110 commodity- and taxon-based surveys, with an average of at least 5 pests per survey. The program expects to continue conducting surveys for an average of 15 pests in each State.

Overall, base funding for the Pest Detection program currently supports salaries and benefits, and cooperative agreements, as well as other normal operating expenses such as travel, rent, utilities, and supplies to conduct program activities.

Pay (+\$419,000)

An increase of \$419,000 for pay costs (\$112,000 for annualization of the 2017 pay increase and \$307,000 for the 2018 pay cost increase).

Program reduction (-\$419,000)

Operating costs for the program will be reduced by \$419,000.

(o) Plant Protection Methods Development program (\$20,647,000 and 131 staff years requested in 2017).

The goal of the Plant Protection Methods Development (PPMD) program is to develop scientifically viable and practical tools for exotic plant pest exclusion, detection, and management. These tools preserve economic opportunities for farmers and industries that engage in interstate commerce and international trade, and safeguard U.S. agricultural and natural resources from invasive plant pests. The program plays an essential role in APHIS' mission by developing tools for the detection of exotic plant pests in survey programs; developing molecular diagnostic tests and identification tools for pest identification; developing integrated pest management methods, including biological control, to help eradicate or manage invasive pests; and developing treatments to support interstate and international trade.

APHIS' nationwide pest detection surveys and pest management programs depend on accurate and effective tools. The PPMD program supports development of pest trapping, identification, and survey technologies. Digital pest identification tools and molecular diagnostics developed through PPMD funding supports both domestic programs and import pest identification responsibilities. APHIS uses these tools to conclusively identify exotic species introductions in order to take appropriate regulatory actions. The program also develops pest management techniques that APHIS national programs use to manage or eradicate invasive pest threats. Without this program, APHIS would not be able to provide the tools needed to carry out plant pest eradication and detection programs.

The program also provides conventional and molecular diagnostics for plant pathogens detected during domestic surveys and emergency programs, including huanglongbing (citrus greening), citrus canker, and sweet orange scab as part of the Agency's citrus health program, and sudden oak death as part of its nursery stock program, among others. During FY 2016, the bacterial pathogen *Xanthomonas vasicola* pv. *vasculorum* was identified for the first time in the United States. The program performed molecular diagnostic testing on more than 570 corn samples from 12 States over six weeks to support the emergency survey response to this devastating pest. In FY 2018, the program will continue working to develop new tools and pest detection methods.

Overall, base funding for the Plant Protection Methods program currently supports salaries and benefits, contracts, and agreements, as well as other normal operating expenses such as travel, rent, and supplies to conduct program activities.

Pay (+\$289,000)

An increase of \$289,000 for pay costs (\$77,000 for annualization of the 2017 pay increase and \$212,000 for the 2018 pay cost increase).

Program reduction (-\$289,000)

Operating costs for the program will be reduced by \$289,000.

- (p) A decrease of \$9,667,000 and 24 staff years for the Specialty Crop Pests program (\$157,700,000 and 718 staff years available in 2017).

The goal of the Specialty Crop Pests (SCP) Program is to protect U.S. fruits and vegetables, tree nuts, horticulture, and nursery crops from adverse impacts associated with invasive pests, such as crop damage or threats to international trade and interstate commerce. APHIS works in coordination with State, Tribal, university, and industry partners to prevent or mitigate impacts for invasive pests of Federal regulatory significance. These activities include verifying pest distribution, creating conditions that prevent long distance spread of the pest, developing and implementing diagnostic tools and pest mitigation strategies, and communicating with the public to gain support for program strategies and modify behaviors that introduce or spread pests. These efforts promote the ability of U.S. farmers and producers to export their products, prevent damage to specialty crop production (helping to ensure the availability of fresh fruits and vegetables), and protect natural resources, including forests and residential landscapes. Specialty crops are grown in all 50 States, and they have a high value. APHIS' SCP program directly protects production (including citrus, grapes, potatoes, nursery stock, and tree fruit) worth more than \$9.4 billion in FY 2015 (based on internal analysis using data from the Census of Agriculture and USDA's National Agricultural Statistics Service, or NASS). APHIS is currently using SCP resources to address the following pests and diseases: pale cyst nematode (PCN), the light brown apple moth (LBAM), plum pox virus (PPV), exotic fruit flies, European grapevine moth (EGVM), glassy-winged sharpshooter (GWSS), and a variety of citrus pests and diseases, among others.

While Federal response activities take place in concentrated areas where the infestations occur (e.g., PCN in Idaho or LBAM in California), they also protect all at-risk States producing specialty crops. For example, the SCP program works to address the PCN in Idaho and conduct nationwide surveys for the pest. The nationwide survey demonstrates to trading partners that potato producing areas outside of the quarantined area are not affected by PCN, protecting fresh potato export markets worth \$183 million in FY 2015 (NASS' Crop Values 2015 Summary). The program also addresses PPV in New York. PPV is a devastating viral disease of stone fruit, and addressing it in New York protects more than 1 million acres of stone fruit across the United States. Without the SCP program, a variety of export markets for U.S. specialty crops would be at risk—the program protected trade worth more than \$8.8 billion in 2015.

The SCP program partners with affected industries, States, Tribes, academic institutions, and other Federal agencies to deliver domestic programs. Additionally, the program works with its counterparts in foreign countries to address pest risks offshore. For example, the SCP program works with Mexico and Guatemala to mitigate the risk of exotic fruit flies entering the United States. The program has kept the United States free of Mediterranean fruit fly (Medfly) and Mexican fruit fly (Mexfly) for many years by conducting preventative releases of sterile insects to disrupt normal population growth in at-risk areas; detecting and responding to outbreaks when they occur; and maintaining a barrier against the natural spread of the Medfly in Mexico and Central America. Medfly has been recorded infesting 300 cultivated and wild fruits. The Mexfly also has a wide-ranging host list and presents a particular threat to the Texas citrus industry due to its proximity to infested areas in Mexico. APHIS and cooperators maintain 150,000 fruit fly traps in vulnerable areas to ensure that any introductions of exotic fruit flies are detected quickly. In FY 2016, the program responded to eight Mexfly outbreaks in Texas and a Malaysian fruit fly outbreak in California. Without the program's efforts to detect and eradicate these outbreaks when they occur, many important crops would become impossible to grow due to fruit fly infestations. APHIS will continue activities to detect and prevent outbreaks in FY 2018.

To protect the U.S. grape and wine industries, APHIS has partnered with California grape growers to eradicate EGVM and prevent the spread of GWSS into grape-producing areas. In the collaborative effort against EGVM, APHIS provided funding, expertise, and operational support for surveys and regulatory efforts to find and prevent the spread of the target pests, while industry funds and conducts the necessary control treatments (with technical guidance from APHIS and State officials). APHIS and its State, county, and industry partners declared EGVM eradicated in FY 2016 following an intensive, 6-year cooperative effort. APHIS will continue monitoring surveys in FY 2017 and several additional years after to confirm that EGVM does not reappear. Eradicating this pest dramatically lowers growers' production costs and protects or expands export opportunities.

APHIS also works with citrus producing States and industry groups to support industry's ability to grow and market U.S. citrus despite the presence of devastating diseases such as citrus greening, or huanglongbing (HLB). Because of the ongoing threat posed by HLB, APHIS expanded its partnership with the citrus industry to explore new strategies and opportunities through the HLB Multi-Agency Coordination (MAC) group. The MAC Group has funded research to quickly identify practical tools that can aid the citrus industry to combat HLB. Examples of projects include biological control methods to control Asian citrus psyllid, or ACP (an insect that spreads HLB), support for use of anti-microbial treatments against HLB, training of detector dogs to find newly infected trees, development of HLB-tolerant rootstock and methods to treat infected trees with thermal therapy, and development of best management practices for citrus groves in ACP or HLB-affected areas. By the end of FY 2016, growers and commercial firms had already adopted 36 percent of the tools funded through HLB-MAC projects. APHIS is hopeful that the solutions found through this funding will help citrus growers in the near future, while research into long-term solutions for HLB continues. APHIS will continue to address HLB and other citrus diseases in FY 2018.

In addition, through the Citrus Health Response Program (CHRP), APHIS supports cooperators' in citrus producing states with the on-the-ground operations, such as surveys, regulatory inspections, and outreach to affected growers and the public as well as methods development activities at other USDA agencies.

Overall, base program funding supports salaries and benefits, cooperative agreements, as well as other normal operating expenses such as supplies, equipment, and rent to support program activities.

Reduction to adjust Federal cost-share rates (-\$9,667,000 and a reduction of 24 staff years)

APHIS is requesting an overall decrease of \$9.667 million that will result in more equitable Federal contributions for three of the SCP pest programs. APHIS works as a partner with its cooperators at the State, local, and industry levels to achieve overall program goals. Since States, localities, and industry are beneficiaries of the programs, it is appropriate that all parties accept their share of responsibility by devoting resources to address these pests and diseases. The following reductions will achieve an approximate 50 percent cost share rate for the programs:

- A reduction of \$3.292 million for the European Grapevine Moth Program;
- A reduction of \$3.319 million for the Glassy-Winged Sharpshooter Program; and
- A reduction of \$3.056 million for the Pale Cyst Nematode Program.

If cooperators increase their contributions to cover the program's costs, the overall level of program activities will remain steady and APHIS will not need to reduce staffing levels.

Pay (+\$1,584,000)

An increase of \$1,584,000 for pay costs (\$424,000 for annualization of the 2017 pay increase and \$1,160,000 for the 2018 pay cost increase).

Program reduction (-\$1,584,000)

Operating costs for the program will be reduced by \$1,584,000.

- (q) A decrease of \$23,897,000 and 82 staff years for the Tree and Wood Pests program (\$53,897,000 and 301 staff years available in 2017).

America's forests are valuable resources that provide jobs and recreation opportunities and create habitat for wildlife. They provide economic opportunities and ecosystem services worth an estimated \$1.2 trillion. Through the Tree and Wood Pests (TWP) program, APHIS addresses devastating pests such as the Asian longhorned beetle (ALB), emerald ash borer (EAB), and European gypsy moth. Numerous native hardwood tree species that are common throughout U.S. forests and urban landscapes are hosts to these pests. When forest pests like EAB kill large numbers of trees in urban and suburban areas, they can cause tremendous, wide-ranging impacts to communities, landscapes, and commerce. In addition, exports of forest products such as logs and timber could be at risk due to trade restrictions put in place by other countries. Nationwide, APHIS programs protect 596 million acres of forested land by preventing the spread of damaging pests. With each acre of forested land valued between \$1,000 and \$2,000, the program protects land/property valued on average at \$21,000 for each dollar it spends.

APHIS cooperates with State and local agencies and organizations in 48 States to conduct various activities to manage and, when feasible, eradicate these pests. These activities include conducting surveys, implementing control measures, developing methods and processes to combat pests, and conducting outreach efforts to prevent pest spread. APHIS' role in the TWP program is to oversee the regulatory framework to prevent the human-assisted movement of these pests and to provide national oversight and coordination for program activities to detect and eradicate or manage the pests. In FY 2018, APHIS will continue addressing ALB outbreaks in Massachusetts, Ohio, and New York (including the most recently detected infestation on Long Island) and pursuing biological control options as a long-term EAB management strategy.

Overall, base funding for the TWP program currently support salary and benefits, contracts, and cooperative agreements, as well as other normal operating expenses such as rent, supplies, travel, and equipment to conduct program activities.

Reduction to adjust Federal cost-share rates (-\$23,897,000 and a reduction of 82 staff years)

APHIS is requesting an overall decrease of \$23.897 million that will result in more equitable Federal contributions for two of the TWP pest programs. APHIS works as a partner with its cooperators at the State, local, and industry levels to achieve overall program goals. Since States, localities, and industry are beneficiaries of the programs, it is appropriate that all parties accept their share of responsibility by devoting resources to address these pests and diseases. The following reductions will achieve an approximate 50 percent cost share rate for the programs:

- A reduction of \$3.127 million for the Emerald Ash Borer Program;
- A reduction of \$20.770 million for the Asian Long Horned Beetle Program;

If cooperators increase their contributions, the overall level of program activities will remain steady and APHIS will not need to reduce staffing levels.

Pay (+\$664,000)

An increase of \$664,000 for pay costs (\$178,000 for annualization of the 2017 pay raise and \$486,000 for the 2018 pay raise).

Program reduction (-\$644,000)

Operating costs for the program will be reduced by \$644,000.

A decrease of \$44,654,000 and 171 staff years for Safeguarding and Emergency Preparedness/Response – Wildlife Services

- (r) A decrease of \$44,654,000 and 171 staff years in the Wildlife Damage Management program (\$100,985,000 and 589 staff years available in 2017).

The Wildlife Damage Management (WDM) program resolves human/wildlife conflicts and protects agriculture, human health and safety, personal property, and natural resources from wildlife damage and wildlife-borne diseases in the United States. This program protects livestock from predators, manages invasive species, such as feral swine, conducts a national rabies management program, and manages damage, conflicts and diseases caused by various wildlife species, such as beaver.

In regards to the protection of agriculture, APHIS prevents and reduces livestock predation through education, technical assistance to producers, and management programs/operational assistance. Livestock losses attributed to predators cost producers more than \$137 million annually, according to the most recent surveys by National Agriculture Statistics Service. Cost-benefit analyses have shown that for each dollar spent on livestock protection, APHIS saves producers between \$2 and \$7 in losses. APHIS estimates that in FY 2016, APHIS' efforts helped producers protect more than 6.5 million head of livestock valued at more than \$2.5 billion.

APHIS' natural resource protection includes protecting natural areas and native wildlife from invasive species, such as feral swine. APHIS' National Feral Swine Damage Management Program has made significant progress in its first three years of implementation. In this timeframe, the Agency has established cooperative, cost-share operational programs on approximately 157 million acres in 41 States and 2 Territories. In the last two years of the program, APHIS and partners successfully eliminated feral swine from six States -- Idaho, Maryland, New Jersey, New York, Washington and Wisconsin. The Agency will continue to monitor these States for the next two years to ensure feral swine do not reestablish themselves in those areas, and continue to conduct disease surveillance and monitoring to protect the health of domestic swine. These efforts support the Agency's goal of significantly reducing the estimated \$1.5 billion of annual damage caused by feral swine in the United States.

Rabies management remains a significant effort for protection of wildlife and human health. APHIS continues to serve as lead Federal agency to prevent the further spread of wildlife rabies, with the goal of eliminating rabies in carnivores in the United States through the use of oral rabies vaccination (ORV). In FY 2016, APHIS distributed more than 11 million oral rabies vaccine baits over more than 188,239 square kilometers. This program has led to the elimination of canine rabies in coyotes, the near elimination of gray fox rabies from Texas, and the containment of raccoon rabies in the eastern United States.

APHIS' wildlife disease biologists provide technical assistance, conduct surveillance, and maintain control of more than 69 wildlife diseases, pathogens, and syndromes, as well as collaborate with domestic and international academic and research institutions regarding wildlife disease surveillance. APHIS employees help manage the significant impacts from damage that beavers cause to waterways, roads and timber; and helps protect native ecosystems from invasive animals, such as nutria and brown tree snakes. These activities benefit private landowners, businesses, and Federal, State, county, and city government offices. Without these specialized and coordinated services, people might independently use methods that compromise America's agriculture, human health and safety, personal property, and natural resources.

Overall, base funding for the Wildlife Damage Management program currently supports salary and benefits, supplies and equipment, as well as other normal operating costs such travel, contracts, rent, and utilities to conduct program activities.

A decrease of \$5,742,000 for aircraft equipment and safety needs

APHIS is requesting a decrease related to aircraft equipment purchases. In FY 2016, Congress provided an additional \$8 million to APHIS for aircraft equipment and safety needs. Of the amount provided, APHIS used a portion of the funds for one-time capital investments to replace aging aircrafts and hangars. In FY 2018, APHIS will continue to use the remaining funds (\$2.258 million) to support maintenance and safety upgrades for the aircraft, and to monitor and support the safety of APHIS aerial operators.

Reduction to adjust cost-share rates (-\$38,912,000 and a reduction of 171 staff years)

APHIS proposes to reduce Federal funding for the Wildlife Services Damage Management program and perform these services to the extent the beneficiaries of the program directly pay for them. For example, if a rancher is experiencing predators killing his cattle and sheep, or if a farmer is having trouble with fish-eating birds damaging their catfish and other aquaculture crops, the Agency will provide technical information, and in some cases the necessary equipment, on how to conduct the work themselves. At the reduced funding level, the program will continue to provide education and technical assistance but cooperators requesting direct control assistance would increase their contributions to cover the operational program costs.

With the proposed Federal cost share decrease, the Agency will continue the national rabies management program and the national feral swine program, but cooperators that directly benefit from these services would assume a greater share of the program costs. APHIS proposes to reduce funding for rabies activities in States outside of the barrier zone. The Agency will provide support to lower-risk States for cooperators who can cover these costs. APHIS established the National Feral Swine Damage Management program in FY 2014 to minimize the impacts of feral swine damage. APHIS has had successes at eliminating feral swine through localized, accelerated projects, which are designed to quickly reduce a feral swine population in an area of high density. APHIS will continue to provide these services to cooperators who provide funding for them via cost-share agreement.

Pay (+\$1,300,000)

An increase of \$1,300,000 for pay costs (\$348,000 for annualization of the 2017 pay increase and \$952,000 for the 2018 pay cost increase).

Program reduction (-\$1,300,000)

Operating costs for the program will be reduced by \$1,300,000.

(s) Wildlife Services Methods Development program (\$18,820,000 and 125 staff years available in 2017).

APHIS provides the only dedicated Federal leadership in managing wildlife problems and developing methods to resolve human-wildlife-agricultural conflicts. The Wildlife Services Methods Development (WSMD) program works with cooperators to conduct research and develop socially responsible methods to prevent and mitigate damage caused by wildlife and invasive species on agricultural productions, and to detect and prevent wildlife diseases that may impact animal health and agricultural biosecurity. This program provides scientific information to support the development and implementation of socially-acceptable methods for managing wildlife damage. These methods enable APHIS, cooperators, and individuals to protect crops, livestock, natural resources, property, and public health and safety.

In recent years, APHIS' WSMD program has developed methods to mitigate the spread of feral swine; improve the use of livestock protection dogs in Idaho, Montana, Oregon, and Washington; and automated distribution of aerial baits in Guam that have reduced the population of brown tree snakes by 80 to 85 percent in the targeted area. Each of these examples has reduced damage to property, agriculture, human health and safety, and/or native wildlife and ecosystems. Additionally, the WSMD program develops data

to register products that enable the private sector to further manage human-wildlife conflicts. An example of this type of technology transfer is the registration of a contraceptive to control the white-tail deer population, with the U.S. Environmental Protection Agency and the Food and Drug Administration. The program also explores ways to reduce the spread and transmission of zoonotic diseases, and develops disease diagnostic methods. In addition, the program develops strategies to monitor wildlife pathogens, assesses risks to agriculture and human health and safety, and assists APHIS' operational programs with surveillance and monitoring. These methods are essential to cooperators, and preserve businesses and regional employment opportunities.

The WSMD program serves as an international leader in non-lethal research to reduce wildlife damage. In FY 2016, the program initiated 160 studies and published 115 scientific studies in 67 different professional scientific journals and book chapters. Without continued resources, the WSMD program will not be able to develop and evaluate new tools and strategies to manage wildlife damage, including managing the expanding feral swine population, registering safe toxicants, and developing new methods for improving trapping and oral bait delivery systems.

Overall, base funding for the Wildlife Services Methods Development program currently supports salary and benefits, contracts, and cooperative agreements, as well as other normal operating expenses such as, supplies, equipment, travel, and rent to conduct program activities.

Pay (+\$276,000)

An increase of \$276,000 for pay costs (\$74,000 for annualization of the 2017 pay increase and \$202,000 for the 2018 pay cost increase).

Program reduction (-\$276,000)

Operating costs for the program will be reduced by \$276,000.

Safeguarding and Emergency Preparedness/Response – Regulatory Services

- (t) Animal and Plant Health Regulatory Enforcement program (\$16,193,000 and 116 staff years available in 2017).

The Animal and Plant Health Regulatory Enforcement (APHRE) program promotes the integrity of APHIS programs by providing effective and efficient investigative and enforcement services. APHIS' four regulatory programs, along with the Agricultural Quarantine Inspection activities at the Department of Homeland Security's Customs and Border Protection, are all national programs that require Federal investigative and enforcement support to promote compliance and program integrity, and ultimately, protect American agriculture. The APHRE program centralizes this function into one national program, thereby promoting greater efficiency, effectiveness, and consistency than would be possible if each program handled these functions independently. The program serves as APHIS' primary liaison with USDA's Office of the Inspector General (OIG) and Office of the General Counsel (OGC), the U.S. Department of Justice (DOJ), and other Federal and State law enforcement organizations.

The APHRE program ensures compliance through comprehensive investigations, sound enforcement actions, and strong educational efforts. The program uses monetary penalties and alternative enforcement actions, including non-monetary settlement agreements, and works with OIG, OGC, and/or DOJ to pursue administrative, civil, or criminal action, as appropriate, in response to alleged violations of APHIS-administered laws. This helps to foster deterrence of those who may attempt to circumvent U.S. agricultural laws. Program activities serve to deter individuals and companies from engaging in acts that could otherwise cause extensive economic damage and/or excessive expenses related to eradication or mitigation efforts designed to protect the American agriculture system.

APHIS developed and applies criteria to focus resources on the highest priority cases. In doing so, the Agency is able to expedite the processing time for enforcement actions involving violations that pose the greatest risk to animal and plant health, while expeditiously resolving hundreds of lower-priority cases to reduce the overall backlog of cases. Beginning in 2011, APHRE streamlined business processes and began focusing on the highest-priority investigations for APHIS' animal and plant health programs and reducing its inventory of open investigations by 80 percent. For three years, the program has maintained its goal of an average of 420 open investigations annually and an average of 314 days to complete an investigation and resulting enforcement action. The APHRE program also initiated 2,154 new cases; issued 1,320 official warnings; conducted 458 pre-litigation settlements resulting in the collection of \$728,602 in stipulated penalties; and obtained administrative orders assessing \$3,914,999 in civil penalties in FY 2016. The program will continue to focus on the highest-priority investigations and timely enforcement in FY 2018.

Overall, base funding for the APHRE program currently supports salaries and benefits and contracts, as well as other normal operating expenses including travel, supplies, printing, rent, and utilities to conduct program activities.

Pay (+\$256,000)

An increase of \$256,000 for pay costs (\$68,000 for annualization of the 2017 pay increase and \$188,000 for the 2018 pay cost increase).

Program reduction (-\$256,000)

Operating costs for the program will be reduced by \$256,000.

(u) Biotechnology Regulatory Services program (\$18,839,000 and 96 staff years available in 2017).

The biotechnology industry—estimated at \$246 billion worldwide—develops innovative products that can greatly benefit the public. Every day, American farmers and consumers benefit from USDA's role in bringing biotech products to the marketplace. On the plant health side, farmers benefit from genetically engineered (GE) crops through improved yields while consumers benefit from improved traits, such as healthier oils and reduced exposure to potential carcinogens. However, before any of these products can be brought to market, it is essential to demonstrate, through rigorous, scientific review, that they do not pose a risk to America's agricultural and natural resources. USDA ensures new GE crops will not pose plant health risks when released into the environment. USDA's reviews and regulatory determinations support producers of new and innovative GE technologies in their efforts to enter commerce and the worldwide marketplace. These controls instill confidence in the public and in our trading partners that GE products produced in the United States are safe and of the highest quality. According to the USDA Economic Research Service, more than 90 percent of the soybeans, corn, and cotton grown by U.S. farmers are developed using biotechnology.

APHIS ensures that developers, growers, and others take the important steps to prevent unauthorized releases of GE organisms. Depending on the characteristics of the GE organism, the developer files an application in the form of either a permit or a notification. A permit is more restrictive than a notification, and is generally issued for GE organisms that may pose a greater plant pest risk. A notification is a streamlined permit for GE organisms that APHIS has familiarity with and are less likely to pose a plant pest risk. In FY 2016, APHIS authorized 1,767 notifications and permits throughout the United States.

When reviewing notifications and permit applications, APHIS requires that developers are in compliance, meaning they meet conditions to ensure the GE organisms are confined and do not persist in the environment when the field trial is completed. To ensure that GE organisms meet standards outlined in the permit or notification, APHIS inspects fields, equipment, and other facilities. In FY 2016, APHIS and the States (authorized by APHIS) conducted more than 800 site inspections; 55 of

which were unannounced inspections. Approximately 97 percent of those inspected were in compliance with APHIS biotechnology regulations.

Once a developer can demonstrate a GE plant does not pose a risk to plant health, the developer can seek determination of nonregulated status (also known as deregulation) of the plant. USDA review and deregulation of these GE crops are essential in making these products available in the marketplace. In FY 2016, USDA completed seven petitions or requests for determination of nonregulated status, surpassing its goal of five. These determinations of nonregulated status include a non-browning apple, five varieties of corn, and a low-acrylamide potato that has a reduced tendency for black spot bruising. In FY 2016, APHIS reached a cumulative total of 124 determinations. Determinations of nonregulated status have been an immense benefit to farmers, producers, and consumers. Agricultural biotechnology gives farmers and producers more tools to address pest, disease, and weed management issues, contributes to the adoption of no-till and low-till practices, and helps safeguard crops against disease. USDA expects the number of determinations of nonregulated status to increase from 124 in FY 2016 to 127 by the end of FY 2017.

In 2011, APHIS identified and implemented solutions to significantly improve the speed and predictability of the petition process without affecting the quality of decision-making. Through this process improvement, APHIS enabled more rapid and predictable availability of biotechnology products to farmers, ultimately providing technologies to growers sooner and more choices for consumers. In FY 2016, APHIS met its target timelines of 13-15 months for making a regulatory determination for petitions requiring an environmental assessment, as opposed to those requiring a more extensive environmental impact statement (EIS). In FY 2018, APHIS will continue to devote resources to petitions to meet target timelines and expects to continue to meet its improved target timelines for any petitions (not requiring an EIS) submitted during the fiscal year.

On January 19, 2017, APHIS published a proposed rule to revise the Agency's approach for regulating GE organisms. APHIS is proposing a regulatory program that will better enable the Agency to focus its resources on regulating GE organisms that may pose plant pest or noxious weed risks, and will enhance regulatory flexibilities that stimulate innovation and competitiveness. During the 152-day comment period, APHIS will hold public meetings, after which the Agency will decide how or whether to finalize the regulations based on our evaluation of public comments to the proposed revisions.

In addition to the petition process, APHIS' "Am I Regulated?" (AIR) process considers whether an organism is a regulated article under current APHIS biotechnology regulations. If developers are unsure whether their GE organism meets the definition of a regulated article, they can send a letter to APHIS. The letter must include scientific data, the method of transformation used, and other information about the GE organism. APHIS will evaluate the description of the product and inform the developer if the GE organism is or is not regulated by APHIS under the biotechnology regulations. APHIS publishes the company's incoming letter and our responses to AIR letters on its website. In FY 2016, APHIS responded to 13 AIR inquiries.

Under the Coordinated Framework for the Regulation of Biotechnology, USDA works with the Environmental Protection Agency and the Food and Drug Administration to ensure the safe development of products derived through genetic engineering.

APHIS partners with the National Plant Board to allow State inspectors to conduct inspections of field release sites. This partnership makes additional staff available for inspections and ensures cost-effective use of resources.

APHIS works with international partners to enhance the coordination of regulatory approaches for the safe use of GE organisms and provides capacity building assistance to developing countries for the regulation of GE crops. For example, in FY 2016, APHIS worked closely with Mexico and Canada on technical and regulatory biotechnology issues in bilateral, regional, and multi-lateral international venues. APHIS also meets with foreign visitors who are interested in understanding how the United States regulates the safe use of biotechnology derived crops. These interactions include foreign visitors

representing the press, politicians, government ministry officials, scientists, and consumer groups. In FY 2016, APHIS provided technical support to USDA's Foreign Agriculture Service, State, and other U.S. government agencies in outreach activities related to participation in the Meeting of the Parties to the Cartagena Protocol on Biosafety held in South Korea (currently 170 countries are Parties). This work is aimed at enhancing coordination of regulatory approaches and providing capacity building assistance for the regulation of GE crops. APHIS will continue to engage in activities that promote U.S. exports of GE products.

Overall, base funding for the BRS program currently supports salaries and benefits, contracts, and agreements, as well as other normal operating costs, such as travel, equipment, and supplies to conduct program activities.

Pay (+\$212,000)

An increase of \$212,000 for pay costs (\$57,000 for annualization of the 2017 pay increase and \$155,000 for the 2018 pay cost increase).

Program reduction (-\$212,000)

Operating costs for the program will be reduced by \$212,000.

Safeguarding and Emergency Preparedness/Response – Emergency Management

(v) Contingency Fund (\$469,000 and 5 staff years available in 2017).

The APHIS Contingency Fund provides the Agency with resources to implement emergency, short-term activities that are relatively small in scale and not otherwise supported by the Agency's commodity line items within the appropriation. The Agency can quickly access the resources needed for the control of outbreaks of animal and plant diseases, and for the control of insects, pest animals, and birds to the extent necessary to meet emergency conditions. For example, the Agency was able to initiate activities to effectively address outbreaks of the European grapevine moth, rabies, contagious equine metritis, giant African land snail, feral swine, and most recently, outbreaks of cattle fever ticks in Texas.

Overall, base funding for the Contingency Fund currently supports salaries and benefits, equipment, and agreements, as well as other normal operating expenses such as travel and supplies to conduct program activities.

Pay (+\$11,000)

An increase of \$11,000 for pay costs (\$3,000 for annualization of the 2017 pay increase and \$8,000 for the 2018 pay cost increase).

Program reduction (-\$11,000)

Operating costs for the program will be reduced by \$11,000.

(w) Emergency Preparedness and Response program (\$16,934,000 and 97 staff years available in 2017).

The Emergency Preparedness and Response (EPR) Program improves APHIS' capability to prevent, prepare for, respond to, and recover from animal and plant health emergencies. Its goal is to respond to animal health events within 24 hours from the time the Agency decides that it is appropriate to be involved in the response effort. Preparedness takes place on several levels – national, State, and local – requiring planning and coordination of all parties. APHIS' personnel develop strategies, policies, and procedures for incident management and response coordination that meet national and international standards, and make

guidance documents available to State officials and industry partners. They also coordinate investigations and disseminate information about animal health emergencies; and participate in joint Federal, State, and local animal health and all-hazards test exercises to improve response plans and capabilities. After exercises or actual incidents, they perform reviews to help States enhance their response plans. In addition, they work with major commodity groups to develop business continuity plans to ensure the continuous movement of livestock products during an animal health emergency. APHIS maintains an animal health emergency reserve corps of private veterinarians and animal health technicians, and veterinary students. Effective preparation for and response to animal health events requires advance and continuous preparation, followed by training and exercises to enable a rapid response. This program enables APHIS to achieve a high state of readiness to be able to respond rapidly and effectively to emergency events, thus lessening the impact of those events on producers, consumers, taxpayers, and the overall economy.

APHIS and the Centers for Disease Control and Prevention (CDC) jointly manage the Federal Select Agent Program (FSAP). The FSAP oversees the possession, use, and transfer of biological select agents and toxins that have the potential to pose a severe threat to public, animal or plant health or to animal or plant products. Pursuant to the *Public Health Security and Bioterrorism Preparedness Response Act of 2002*, any individuals or entities possessing, using, or transferring select agents or toxins must register them with APHIS or CDC. The FSAP administers the select agents regulations in coordination with the Federal Bureau of Investigation. Facilities must meet safety requirements, including biosecurity and physical security measures, to ensure the safety and security of the agents and prevent their release. APHIS and CDC inspect facilities that use or transfer these agents to ensure compliance. They also inspect each other's facilities to eliminate any potential conflicts. APHIS has primary responsibility for ensuring that all non-compliances identified at these facilities are addressed appropriately, and for initiating any further administrative or other enforcement actions that are needed. In addition, APHIS began meeting with the Department of Homeland Security in FY 2016 to plan the select agent registration of the National Bio and Agro-Defense Facility, which is being constructed in Manhattan, Kansas. This facility will be the largest laboratory working with large animals in the country and will require significant advance planning, inspection, and review of documentation until it is fully operational.

APHIS is actively engaged in broader preparedness and response efforts. For example, the Agency is involved in the National Response Framework, a government-wide guide for an all-hazards response. The Federal Emergency Management Agency (FEMA) is the lead Agency responsible for establishing a comprehensive approach to manage domestic incidents. The EPR program supports coordinators in each designated FEMA region for Emergency Support Function 11 (ESF#11): Agriculture and Natural Resources, as outlined in the Framework. These coordinators work with State, Tribal, and local authorities and other Federal agencies to address agricultural health issues and support animal and agricultural emergency management. In FY 2016, ESF #11 coordinators in the ten FEMA regions and at the national level participated in the planning and execution of FEMA and State exercises. APHIS also provides technical support to FEMA for the care of pets and service animals during disasters.

APHIS also participates on the Biosurveillance Indications and Warning Analytic Community steering committee to promote greater understanding of agricultural threats across the Federal government, providing context and characterization for threats that may also affect human health, and/or the U.S. economy. Through this interaction, APHIS leverages tools used by all partners to augment other APHIS global biosurveillance initiatives. The Agency's participation helps enhance international disease surveillance capabilities and analytic methods supporting trade decisions through information sharing, risk identification, risk analyses, and surveillance activities.

Overall, base funding for the Emergency Preparedness and Response Program currently supports salaries and benefits of personnel and contracts, as well as other normal operating costs such as travel, supplies, rent, and utilities to conduct program activities.

Pay (+\$214,000)

An increase of \$214,000 for pay costs (\$57,000 for annualization of the 2017 pay increase and \$157,000

for the 2018 pay cost increase).

Program reduction (-\$214,000)

Operating costs for the program will be reduced by \$214,000.

(2) Safe Trade and International Technical Assistance:

(a) Agriculture Import/Export program (\$15,070,000 and 80 staff years available in 2017).

APHIS works with other Federal agencies, States, foreign governments, industry, and academia to protect U.S. agriculture while facilitating the safe trade of animals and animal products. APHIS ensures that U.S. import requirements safeguard U.S. livestock health, and negotiate requirements for the export of U.S. animals and animal products worldwide. These requirements and negotiations are based on compliance with international standards, sound scientific principles, and fair trading practices. Moreover, APHIS sets quarantine, testing, and other requirements under which animals and animal products can be imported or exported. These requirements help ensure that global markets can be accessed, expanded, or maintained with little or no risk to U.S. animal production and human health.

APHIS also conducts activities related to the Lacey Act, as amended in the 2008 Farm Bill. The Lacey Act prohibits the importation of any plant - with limited exceptions - taken or traded in violation of domestic or international laws. The Act requires a declaration for imported shipments of most plants or plant products. A 2012 study by the United Nations Environmental Programme estimated the value of illegal logging, including processing, to be between \$30 to \$100 billion dollars, or 10 to 30 percent of the global wood trade. The Lacey Act amendments are designed to help combat this illegal logging, often connected to organized crime, by encouraging importers to research their supply chains and be aware of the laws governing products they purchase in other countries. APHIS is working with an interagency group to implement the provisions. This group represents the U.S. Forest Service, U.S. Department of Justice, U.S. Department of State, U.S. Fish and Wildlife Service, the Council on Environmental Quality, and the U.S. Department of Commerce. APHIS' role is to manage the declaration requirement, provide guidance to importers regarding the declaration, perform compliance checks, and provide enforcement agencies with information to assist their investigations. APHIS currently collects about 40,000 declarations per month but expects that number to increase 1 million per month when the declaration requirements are fully phased in.

Imports

To facilitate imports, APHIS evaluates the animal health status of regions that wish to export animals and/or animal products to the United States. This evaluation process minimizes the risk of introducing animal diseases through importations. APHIS publishes regulatory actions based on these evaluations in the *Federal Register*. APHIS' science-based review is consistent with international trade requirements. In addition to detailed risk analyses of the regions, the Agency conducts site visits to confirm that the regions' surveillance, prevention, and control measures are sufficient to minimize the likelihood of an introduction of classical swine fever, swine vesicular disease, bovine tuberculosis and bovine brucellosis into the United States. In FY 2016, APHIS issued 14,647 import permits for live animals, animal products, organisms, and vectors. These include new permits, renewals, and amendments. APHIS processed an additional 579 permits for animal products that were placed on hold at the port of entry. APHIS will continue to ensure that import regulations are effective and science-based, and to work with U.S. businesses and importers to facilitate safe trade.

Exports

In FY 2016, the value of new or maintained export markets for animals and animal products was more than \$2 billion (Foreign Agricultural Service). To open, re-open, and maintain U.S. access to worldwide export markets, APHIS negotiates science-based conditions with trading partners for various commodities that protect their country while also facilitating trade. In FY 2016, APHIS negotiated or re-negotiated 100

export protocols for animal products (5 new markets, 32 expanded markets, and 63 retained markets). This includes retaining market access for the export of pet food, chews and treats to Canada (valued at \$548 million annually) after new requirements were imposed by the Canadian Food Inspection Agency, and new market access for pork, beef, and poultry valued at \$75 million annually. APHIS negotiated 143 export protocols for live animals (49 new or reopened markets, 68 retained markets, and 26 expanded markets), including new markets for cattle to Colombia, India, Paraguay, and Venezuela. APHIS conducted voluntary inspections of more than 695 U.S. manufacturing facilities to maintain, expand, or open export markets in many countries, including Australia, Canada, China, the European Union, Indonesia, Malaysia, Mexico, Peru, and Turkey. APHIS participated in industry stakeholder meetings, provided technical support for World Trade Organization cases, and attended bilateral trade meetings with multiple countries. APHIS also developed information packages and questionnaire responses from various countries to maintain, expand, or open export markets. APHIS will continue to support agricultural exports by providing these services and activities.

Overall, base funding for the Agriculture Import/Export program currently supports salaries and benefits of personnel, contracts, and agreements, as well as other normal operating costs such as travel, supplies, rent, and utilities to support program activities.

Pay (+\$177,000)

An increase of \$177,000 for pay costs (\$47,000 for annualization of the 2017 pay increase and \$130,000 for the 2018 pay cost increase).

Program reduction (-\$177,000)

Operating costs for the program will be reduced by \$177,000.

(b) Overseas Technical and Trade Operations program (\$22,072,000 and 55 staff years available in 2017).

Agricultural trade continues to be a bright spot for the U.S. economy, with agricultural exports totaling approximately \$130 billion in FY 2016, according to USDA's Economic Research Service. APHIS plays a central role in resolving technical trade issues that affect export opportunities for U.S. producers, allowing U.S. companies to access new markets and be competitive in trade. APHIS officials – including headquarters personnel, field staff, and personnel stationed overseas – are critical to the success of these efforts. APHIS staff negotiates animal and plant health certification requirements, ensuring requirements are proportional to risk without being excessively restrictive; assist U.S. exporters in meeting foreign regulatory requirements; provide technical information to support the safety of U.S. agricultural products destined for foreign markets; and safeguard the U.S. borders from foreign agricultural pests and diseases.

Through the Overseas Technical and Trade Operations program, APHIS uses its technical expertise in animal and plant health to resolve sanitary and phytosanitary (SPS) issues and ensuring the fast and safe movement of agricultural exports. Specifically, the program opens, expands, and retains foreign markets for U.S. agriculture; monitors trading partners' SPS import conditions for U.S. agricultural products; ensures the smooth and safe movement of agricultural commodities to and from the United States; resolves technical issues affecting shipments of U.S. exports at foreign ports of entry by placing technical experts overseas; and monitors emerging pest and disease situations to prevent the introduction of exotic animals, plant pests, and diseases to the United States, among other responsibilities. For example, in FY 2016, APHIS' efforts led to the reopening of China's markets to certain U.S. poultry products worth \$98 million. These efforts help the U.S. poultry industry continue to rebound after the 2015 outbreak of notifiable avian influenza. APHIS also expanded beef exports to Colombia, increasing potential exports to that country to \$15-\$20 million per year and opened the Australian market to California apricots. APHIS' actions expanded international markets for U.S. exporters and helped to generate more than one million jobs around the country. Our officers overseas worked to secure the release of over 200 commodity shipments worth over \$22 million that foreign agriculture inspectors held for sanitary and phytosanitary reasons. In FY 2016, APHIS' efforts to eliminate trade barriers and to ensure that trade decisions are based on science,

results in retained, expanded, or opened markets worth an estimated total of \$2.6 billion for U.S. agricultural exports.

Working with other Federal partners, such as the U.S. Trade Representative's Office and USDA's Foreign Agricultural Service, APHIS provides the technical expertise to successfully address animal and plant health regulatory issues associated with trade negotiations. This technical support is vital to ensuring that animal and plant health issues are resolved without undermining protection for U.S. agriculture. APHIS' participation in trade negotiations ensures that SPS measures incorporated into agreements are compatible with U.S. animal and plant health policies, while promoting the export interests of U.S. agricultural producers.

Agricultural trade is subject to costly disruptions from animal and plant health barriers. APHIS' technical trade and capacity building activities support food security and export opportunities to U.S. producers. The activities also provide safe, nutritious products like fruits, vegetables, and animal protein sources to international markets. APHIS is monitoring shifts in global trade trends and is aligning overseas officials to critical areas. Without this program, APHIS' ability to efficiently and effectively respond to SPS issues, work with foreign counterparts and international organizations to protect the United States from foreign plant and animal pests and diseases, and support U.S. producers' exports would decrease. With continued resources, APHIS expects to retain, expand, and open markets worth at least \$2.6 billion for U.S. agricultural products in FY 2018, and facilitate the release of 250 shipments.

Overall, base funding for the Overseas Technical and Trade Operations currently supports salaries and benefits of personnel, and travel, as well as other normal operating expenses including rent, cooperative agreements, and rent. In addition, this program supports the mandatory cost share program with the Department of State for International Cooperative Administrative Support Services.

Pay (+\$121,000)

An increase of \$121,000 for pay costs (\$32,000 for annualization of the 2017 pay increase and \$89,000 for the 2018 pay cost increase).

Program reduction (-\$121,000)

Operating costs for the program will be reduced by \$121,000.

(3) Animal Welfare:

(a) Animal Welfare program (\$28,356,000 and 232 staff years available in 2017).

APHIS' Animal Welfare program has the unique Federal role of ensuring the humane care and treatment of the more than two million animals covered by the Animal Welfare Act (AWA). Through its on-site inspections, educational efforts, and enforcement actions, the program ensures facilities licensed and registered by the USDA are adhering to the Federal animal welfare standards. The program assures these animals receive adequate humane care and treatment by conducting unannounced inspections to monitor compliance.

Before obtaining a license or registration, APHIS provides tailored materials and guidance, and conducts pre-license inspections to applicants to ensure they can meet the expectations set forth in the regulations. During the inspection process, APHIS confirms that the animals are provided adequate housing, transport, veterinary care, and meet husbandry standards as described in the AWA. In FY 2016, the program either conducted, or attempted to conduct, 9,226 random-based inspections at approximately 10,730 facilities located across the United States. APHIS inspectors perform unannounced inspections to verify continued compliance with the AWA. During inspections, Agency officials examine and inspect all areas of animal care and treatment covered under the AWA. The Agency reviews the animals, premises, facilities, husbandry practices, program of veterinary care, records, and animal handling procedures.

APHIS also re-inspects animal welfare problem facilities, educates regulated entities, and provides detailed training for inspectors. In addressing the regulated facilities that are not in substantial compliance, APHIS' Risk Based Inspection System flags high risk entities and the Agency conducts re-inspections for repeat noncompliance within 90 days to assess the welfare of the affected animals. These efforts have yielded impressive results: on average 96 percent of regulated entities have maintained compliance with the AWA over the past five years.

In support of USDA Agricultural Research Service's (ARS) efforts to promote animal welfare and establish fully functioning Institutional Animal Care and Use Committees at its animal research facilities, APHIS has registered 36 ARS research facilities under the AWA, completed 35 pre-compliance visits to assess welfare conditions at ARS research facilities, and in FY 2016 conducted 1 unannounced inspection. In FY 2017, APHIS will continue to monitor the health and welfare of animals housed at ARS facilities through the use of our unannounced inspection process.

Whenever possible, APHIS takes a coordinated and collaborative approach to improving the welfare of animals. Working with State Departments of Agriculture, universities, industry groups, animal advocacy organizations, and noted experts from throughout the world, APHIS' Center for Animal Welfare conducts educational workshops, scientific seminars, and listening sessions to convey current, critical information regarding animal welfare. Because of the collaborations and the advancements being made at the Center for Animal Welfare, APHIS has been able to reduce inspection frequencies (while staying within legal requirements) for facilities that have implemented and documented strong animal welfare programs. This allows the Agency to remain focused on addressing the egregious violators of the AWA – who comprise five percent of all licensees/registrants. When necessary, APHIS exercises immediate deterrent options, such as letters of warning. In responding to serious noncompliance, APHIS uses enforcement procedures that range from civil penalties, the issuance of "cease and desist" orders, the confiscation of animals, or license suspension and revocation.

The welfare of animals nationwide is subject to significant media attention and passionate public engagement. The American public holds APHIS accountable for ensuring all regulated animals are healthy and treated humanely. Without the Animal Welfare program, the Agency will no longer be able to enforce the AWA, and the health and safety of more than two million animals would be severely compromised.

Overall, base funding for the Animal Welfare program currently supports salaries and benefits of personnel and travel, as well as other normal operating costs such as contracts, supplies, and equipment to support program activities.

Pay (+\$512,000)

An increase of \$512,000 for pay costs (\$137,000 for annualization of the 2017 pay increase and \$375,000 for the 2018 pay cost increase).

Program reduction (-\$512,000)

Operating costs for the program will be reduced by \$512,000.

(b) Horse Protection Program (\$696,000 and 6 staff years available in 2017).

APHIS' Horse Protection program strives to eliminate the cruel and inhumane practice of soring, which is a technique used to irritate or blister a horse's forelegs through the injection or application of chemicals or mechanical irritants. Soring changes the gait of a horse so that the animal steps higher, thereby allowing its rider to gain a competitive edge and improve his/her chances of winning at horse events. APHIS upholds the Horse Protection Act (HPA) that prohibits sore horses from being shown, exhibited, sold or auctioned.

There are an estimated 200,000 Tennessee Walking and Racking Horses in the United States, with potential show winnings reaching as high as \$2.5 million. Horse show sponsors and/or show management have statutory responsibility under the HPA to prevent unfair competition and must identify and disqualify sored horses prior to participating in HPA-covered events. The Agency's Horse Protection program works collaboratively with the twelve Horse Industry Organizations to train and license the Designated Qualified Persons (DQPs) used to inspect horses for soring at all events covered by the HPA. In FY 2016, DQPs conducted 45,523 inspections of horses, and identified 246 alleged violations at 256 horse show events.

APHIS' Horse Protection program employs its own inspectors to conduct unannounced inspections at horse shows, exhibitions, sales, and auctions, as well as evaluate the effectiveness of the DQPs. In FY 2016, APHIS inspected 11,348 horses at 69 horse events. Of those shows where APHIS was present, the Agency and the DQP's identified 922 instances of noncompliance with the HPA. In addition to physical inspection, APHIS uses diagnostic tools such as radiography and prohibited substance testing in support of the inspection process. APHIS' presence serves as a deterrent; without continued funding, the Agency would expect to see an increase in the abusive practice of soring.

Overall, base funding for the Horse Protection program currently supports salaries and benefits of personnel, and travel, as well as other normal operating expenses such as necessary contracts, agreements, and equipment for completing programmatic functions.

Pay (+\$13,000)

An increase of \$13,000 for pay costs (\$4,000 for annualization of the 2017 pay increase and \$9,000 for the 2018 pay cost increase).

Program reduction (-\$13,000)

Operating costs for the program will be reduced by \$13,000.

(4) Agency-Wide Programs:

(a) APHIS Information Technology Infrastructure program (\$4,243,000 and 0 staff years available in 2017).

The APHIS Information Technology Infrastructure (AITI) program provides funding for the hardware, software (including licensing and support costs) and telecommunications infrastructure that gives Agency employees office automation tools, Internet access, and access to mission-critical programs and administrative applications. The funding for this program supports the stable and secure information infrastructure for those mission-critical applications and the day-to-day business of APHIS. The AITI objectives and priorities are to: continually improve sharing of information across the Agency; improve coordination and accessibility of information, processes, and resources available to enable APHIS employees to provide day-to-day services, and support programs in emergencies; and improve APHIS' cyber-security.

APHIS works with USDA's Office of the Chief Information Officer to support the program goals and manage information technology in a manner consistent with both USDA and Federal requirements. APHIS also works with other Federal partners, including the Department of Homeland Security Customs and Border Protection and the Department of Health and Human Services Centers for Disease Control and Prevention to ensure that AITI provides interoperability and required availability for partner agencies, as needed for program delivery.

APHIS reviews system security patching rates for the APHIS Enterprise Infrastructure workstations and servers to determine the percentage of systems kept current with the latest security patches. In FY 2016, AITI updated to the latest version of the National Institute of Standards and Technology and Federal Information Security Management Act testing standards to enhance our cyber security and reduce

vulnerabilities of our systems. Updating these standards allows for a stronger defense against security breaches. These testing standards are based on cybersecurity guidelines required by Congressional legislation.

While security is important to APHIS, accessibility to information technology tools is vital to the operations of the Agency. In FY 2016, AITI maintained its 99.97 percent availability for its key computing systems as well as a 20.6 minute service-desk response time for the occasions when personnel experience difficulties accessing computing systems, making this the seventh consecutive year of high availability and quick response times. In addition, AITI re-emphasized the avoidance of misuse and/or abuse of IT systems to Agency employees in support of continued cyber security strengthening efforts.

AITI expenditures fund day-to-day operations for the Agency's IT infrastructure, including software license renewals and support, as well as other normal operating costs, such as supplies and equipment.

(b) Physical and Operational Security program (\$5,136,000 and 5 staff years available in 2017).

APHIS oversees and implements precautionary measures to ensure continued mission operations, and protection from disruption, degradation, or destruction of its facilities through the Physical and Operational Security (POS) program. These measures are essential for a safe and secure work environment. In addition, this program supports APHIS' contribution to the U.S. Department of State's continuing implementation of the Capital Security Cost Sharing (CSCS) program, which provides safe and secure workplaces for all U.S. government employees located overseas.

The POS program offers training to APHIS employees who engage with the public while conducting official business, locally and overseas, as well as simulated training that provides instruction on proper reaction procedures when faced with potentially dangerous situations. In FY 2016, the program provided 52 safety-related trainings for more than 1,750 Agency employees, including situational awareness and self-defense seminars. The program also provided one workplace violence training seminar and multiple security briefings for employees who work along the international border or in foreign countries. To enhance preparedness and response, APHIS requires Active Shooter training for all employees through on-line and classroom based training. Two live active shooter training exercises were planned and delivered at the Agency's Ames, Iowa and Fort Collins, Colorado facilities. These exercises involved over 500 employees and 100 law enforcement officers. The scenario-based shooter training exercises provided a dynamic, interactive exercise for APHIS employees, as well as law enforcement officers from multiple Federal, State, and local agencies. The program will continue to offer various safety-related trainings in FY 2018.

The POS program investigates, assesses, and mitigates all internal and external threats, directed at Agency facilities, programs and personnel. These threats include death threats, terrorist threats, and assaults, among others. In FY 2016, APHIS investigated 191 external threats to APHIS employees. The POS program also works to ensure the safety of employees working at or near the Mexican border, and throughout Mexico, Panama, and Guatemala. The program's security specialists investigate threats and respond to requests for protection throughout the country from APHIS employees such as veterinarians and inspectors who enforce regulations in challenging environments. For example, the program provided security during 32 inspections of regulated Animal Welfare Act entities in FY 2016.

The POS program also provides year-round security measures, such as physical security upgrades, alarms, badging and identification systems, guard services, security assessments, and safety and risk assessments. These measures protect employees, visitors, and stakeholders from violence and acts of terrorism. In FY 2016, the program completed physical security assessments at 266 facilities. Of those facilities assessed, 21 were upgraded to ensure that the buildings are compliant with the Interagency Security Committee standards. Additionally, the POS program was responsible for issuing, activating, or updating 8,296 personal identification verification (PIV) cards compliant with Homeland Security Directive - 12, bringing APHIS employees in compliance with PIV use policies. This directive created a government-wide standard for secure and reliable forms of identification to access Federally controlled facilities and networks.

The program also works with other USDA agencies, the U.S. Department of Justice, U.S. Department of Homeland Security, the U.S. Department of State, and local law enforcement agencies to ensure that the appropriate organization takes the lead, contributes to program costs, and integrates security where employees are co-located overseas. APHIS maintains a presence overseas to facilitate agricultural trade and monitor pest and disease threats. The Security Embassy Construction Counterterrorism Act's CSCS program requires the Agency to help fund the construction of New Embassy Compounds based on the number of authorized positions. In FY 2016, APHIS had 319 full-time employees based in countries around the world. This program provides safe and secure diplomatic facilities for the Agency's overseas personnel. If the program were not funded, these measures would continue to be implemented at the expense of other program operations because it is necessary to maintain a safe work environment.

Overall, base funding for the Physical and Operational Security program currently supports contracts, programmatic agreements, and personnel costs, as well as other normal operating expenses such as travel and supplies. In addition, this program supports the mandatory cost share with the Department of State for the CSCS program.

Pay (+\$11,000)

An increase of \$11,000 for pay costs (\$3,000 for annualization of the 2017 pay increase and \$8,000 for the 2018 pay cost increase).

Program reduction (-\$11,000)

Operating costs for the program will be reduced by \$11,000.

- (c) Rent and Department of Homeland Security (DHS) Security Payments (\$42,486,000 and 0 staff years available in 2017).

APHIS operates more than 700 facilities across the country in carrying out its mission of safeguarding the health and value of U.S. agriculture and natural resources. This funding currently supports rental payments associated with 237 General Services Administration (GSA) leases and DHS security payments at certain facilities. The funding for rental payments and DHS security costs ensures that APHIS programs can continue carrying out mission-related activities, including surveillance for animal and plant pests and diseases, pest and disease eradication programs, diagnostic and methods development work at laboratories, animal welfare inspections, and wildlife damage management activities. Without this funding, APHIS would have to reduce its program activities and levels of service to cover rental payments.

ANIMAL AND PLANT HEALTH INSPECTION SERVICE

Summary of Proposed Legislation

Program: Animal Welfare

Proposal: Establish a new user fee that would offset a portion of the appropriation for the enforcement of the Animal Welfare Act

Rationale: APHIS carries out activities designed to ensure the humane care and treatment of animals covered under the Animal Welfare Act. These activities include licensing, registration and inspection of certain establishments that handle animals intended for biomedical research, sold as pets, transported in commerce, or used for exhibition purposes. Regulated entities already pay minimal fees for licenses, but they do not cover the full cost of the activity or the cost of the inspections.

Goal: A mandatory user fee would allow fees collected from regulated entities to be used to finance activities related to the review and maintenance of licenses and registrations, and inspections conducted under the Act.

Budget Impact: (\$ in thousands)

	2017	2018	2019	2020	2021
Discretionary Budget Authority	\$0	\$9,000	\$9,100	\$9,220	\$9,350
Discretionary Outlays	0	8,550	8,600	8,650	8,700

Program: Biotechnology Regulatory Services

Proposal: Establish a new user fee that would supplement appropriations for the regulation of biotechnology derived products

Rationale: Under the authority of the Plant Protection Act, APHIS regulates the introduction—meaning the importation, interstate movement, and field-testing—of organisms derived through biotechnology that may pose a plant pest risk. APHIS reviews information and data, provided during an application process, to issue authorizations, to determine if the genetically engineered (GE) organism may pose a plant health risk during the requested activity. Following this review, APHIS may issue authorizations allowing the specific activity under appropriate confinement conditions to protect plant health. APHIS operates a compliance and inspection program to ensure developers meet conditions designed to confine GE organisms in the environment during field trials, importation and interstate movement subject to the issuance of an authorization.

Goal: The authority will allow fees collected from the application process to finance activities related to the compliance management and inspection of those regulated biotechnology products under Agency authorizations. APHIS would like to develop legislation using, as a guide, the authorities provided to other regulatory agencies.

Budget Impact: (\$ in thousands)

	2017	2018	2019	2020	2021
Discretionary Budget Authority	\$0	\$4,300	\$4,400	\$4,520	\$4,650
Discretionary Outlays	0	4,100	4,150	4,200	4,250

Program: Veterinary Biologics

Proposal: Establish a new user fee that would supplement appropriations for the regulation of veterinary biologics products

Rationale: Under the authority of the Virus-Serum-Toxin Act of 1913 (P.L. 430 of 1913, as amended by 21 U.S.C. Section 151-158), APHIS regulates veterinary biologics (vaccines, bacterins, antisera, diagnostic kits, and other products of biological origin) to ensure that those products produced in or imported into the United States are not “worthless, contaminated, dangerous, or harmful.” APHIS’ licensing activities allow manufacturers to market their products. APHIS reviews license applications for production facilities and biological products, and operates a compliance and inspection program to ensure that its regulations governing veterinary biologics are met. Under this proposal, APHIS would amend its current authority to allow the collection of a user fee.

Many government agencies have used user fees to address funding gaps. Through the Animal Drug User Fee Act, the Food and Drug Administration (FDA) addressed serious financial constraints and supplemented its appropriated funding. APHIS would like to amend its current authority and develop legislation similar to FDA’s Act to allow the collection of such a user fee. This fee would enable APHIS to continually adjust its resources invested in veterinary biologics licensing to the workload generated by the industry, which has steadily increased production and product development.

The industry would directly benefit as reductions in the time required to receive a license would enable the industry to recover the cost of product development faster. Consumers, who rely on veterinary biologics for animal health, whether in animal agriculture or the general public, would also benefit through decreased loss of animals from disease. In addition, the fee would better position APHIS to approve biologics during an animal health emergency.

Goal: APHIS seeks to ensure that veterinary biologic manufacturers comply with all laws, regulations, and policies. The user fee would act as a fee-for-service, where the industry would invest in APHIS to increase its ability to more quickly review product license requests. Additional performance enhancements may be achieved in areas such as licensing, testing, and product release turnaround times.

Budget Impact: (\$ in thousands)

	2017	2018	2019	2020	2021
Discretionary Budget Authority	\$0	\$7,300	\$7,400	\$7,520	\$7,650
Discretionary Outlays	0	6,950	7,000	7,050	7,100

ANIMAL AND PLANT HEALTH INSPECTION SERVICE

Salaries and ExpensesGeographic Breakdown of Obligations and Staff Years
(Dollars in thousands and Staff years (SYs))

State/Territory	<u>2015 Actual</u>		<u>2016 Actual</u>		<u>2017 Estimate</u>		<u>2018 President's Budget</u>	
	Amount	SYs	Amount	SYs	Amount	SYs	Amount	SYs
<u>UNITED STATES:</u>								
Alabama.....	\$3,925	22	\$4,629	35	\$4,629	35	\$4,070	31
Alaska.....	525	2	516	1	516	1	493	1
Arizona.....	9,662	73	9,721	56	9,643	57	7,698	57
Arkansas.....	4,809	24	4,517	33	4,102	32	3,774	30
California.....	83,578	125	80,871	139	81,154	144	71,961	131
Colorado.....	62,116	331	61,566	380	60,335	406	56,677	367
Connecticut.....	1,539	7	1,423	7	1,421	7	1,420	7
Delaware.....	1,079	3	1,014	3	961	3	958	3
Florida.....	51,722	251	42,226	262	42,895	277	41,351	275
Georgia.....	5,791	32	6,409	52	5,947	49	5,487	46
Hawaii.....	23,305	264	24,841	275	24,839	286	24,679	285
Idaho.....	9,355	87	10,613	70	10,512	72	7,379	53
Illinois.....	3,238	23	3,489	28	3,336	28	3,127	27
Indiana.....	3,972	22	22,802	31	10,051	29	9,898	28
Iowa.....	467,373	373	89,650	333	74,418	359	74,336	358
Kansas.....	4,821	30	4,177	31	3,977	31	3,704	29
Kentucky.....	6,083	31	5,326	34	5,326	34	5,138	33
Louisiana.....	3,497	24	3,287	25	3,144	26	2,731	24
Maine.....	1,320	11	1,337	11	1,293	17	1,079	16
Maryland.....	489,035	914	278,105	808	259,094	859	253,284	800
Massachusetts.....	19,393	109	18,133	105	17,809	113	10,599	103
Michigan.....	8,781	51	8,377	56	7,206	59	6,213	52
Minnesota.....	150,511	157	27,057	161	25,528	162	25,251	160
Mississippi.....	6,205	39	8,370	51	8,034	52	6,557	44
Missouri.....	10,691	59	12,115	58	10,695	61	10,254	58
Montana.....	6,210	40	6,505	41	6,383	44	5,645	40
Nebraska.....	25,546	24	3,760	25	3,622	27	3,307	26
Nevada.....	2,449	21	2,401	21	2,401	24	1,676	20
New Hampshire.....	15,318	16	15,397	19	15,375	22	7,685	11
New Jersey.....	3,385	18	3,132	20	2,988	19	2,806	18
New Mexico.....	4,364	35	4,800	41	4,569	45	3,469	39
New York.....	23,887	117	24,108	119	24,015	138	16,770	117
North Carolina.....	35,660	188	40,076	179	39,912	191	37,521	174
North Dakota.....	4,637	20	3,136	18	2,978	20	2,414	17
Ohio.....	14,965	66	16,984	76	16,758	86	9,480	65
Oklahoma.....	4,414	30	4,518	42	4,104	43	3,540	40
Oregon.....	6,164	28	7,133	27	7,036	30	6,347	26
Pennsylvania.....	9,219	43	9,537	49	9,315	50	8,822	46
Rhode Island.....	333	1	361	1	361	1	359	1
South Carolina.....	3,185	20	4,030	32	3,545	28	3,273	27
South Dakota.....	12,344	16	5,518	18	3,310	18	3,205	17
Tennessee.....	6,082	34	5,962	44	5,962	44	4,951	38
Texas.....	58,293	287	66,547	357	58,746	390	54,102	376
Utah.....	6,084	41	11,794	45	11,641	48	6,247	45
Vermont.....	1,222	9	1,302	10	1,301	11	1,002	10
Virginia.....	10,047	25	7,616	34	7,285	33	6,607	29
Washington.....	7,953	29	9,545	29	9,208	27	8,747	25
West Virginia.....	2,360	18	2,536	21	2,432	22	1,883	19
Wisconsin.....	17,568	27	4,614	26	3,861	27	3,408	25
Wyoming.....	3,773	29	3,832	32	3,718	33	3,012	30

State/Territory	<u>2015 Actual</u>		<u>2016 Actual</u>		<u>2017 Estimate</u>		<u>2018 President's Budget</u>	
	Amount	SYs	Amount	SYs	Amount	SYs	Amount	SYs
U.S. TERRITORIES:								
District of Columbia.....	15,251	81	17,693	76	17,693	82	14,974	69
Guam.....	459	-	614	1	614	4	614	4
Puerto Rico.....	9,878	104	9,813	127	9,455	129	9,371	129
Virgin Islands.....	98	-	127	1	127	2	127	2
INTERNATIONAL REGIONS								
AFRICA:								
South Africa.....	616	1	488	1	513	1	513	1
Senegal.....	468	-	821	1	871	1	871	1
Other.....	559	1	504	1	554	1	554	1
ASIA/PACIFIC:								
China.....	1,469	3	1,104	1	1,204	2	1,204	2
Japan.....	881	1	897	1	947	2	947	2
South Korea.....	316	-	427	1	477	2	477	2
Other.....	1,771	3	1,976	2	1,976	2	1,976	2
CARIBBEAN:								
Dominican Republic.....	664	1	658	-	658	-	658	-
Other.....	326	-	443	1	543	2	543	2
CENTRAL AMERICA:								
Guatemala.....	22,738	2	22,009	2	22,009	2	22,009	2
Panama.....	15,039	7	14,054	4	14,054	4	14,054	4
Other.....	976	1	956	1	1,056	2	1,056	2
EUROPE/NEAR EAST:								
Austria.....	294	-	292	-	292	-	292	-
Belgium.....	1,636	2	1,507	2	1,632	3	1,632	3
Other.....	790	2	811	2	811	2	811	2
NORTH AMERICA:								
Canada.....	25	-	165	-	165	-	165	-
Mexico.....	5,855	2	7,002	3	7,127	4	7,127	4
SOUTH AMERICA:								
Brazil.....	736	1	619	1	694	2	694	2
Chile.....	327	-	369	-	369	-	369	-
Other.....	2,488	2	1,980	2	2,105	4	2,105	4
Total direct obligations:	1,801,449	4,460	1,081,044	4,602	1,013,634	4,869	927,536	4,533

Note: Total direct obligations; does not include advances and reimbursements or Agricultural Quarantine Inspection User Fees.

ANIMAL AND PLANT HEALTH INSPECTION SERVICE

Salaries and Expenses

Classification by Objects
(Dollars in thousands)

		2015 Actual*	2016 Actual*	2017 Estimate	2018 President's Budget
<u>Personnel Compensation:</u>					
	Washington, DC.....	\$82,818	\$81,289	\$82,426	\$75,432
	Field.....	248,455	272,143	275,949	267,439
11	Total personnel compensation.....	331,273	353,432	358,375	342,871
12	Personnel benefits.....	108,013	113,953	119,922	117,625
13	Benefits for former personnel.....	732	738	738	738
	Total, personnel comp. & benefits.....	440,018	468,123	479,035	461,234
<u>Other Objects:</u>					
21	Travel and transportation of personnel.....	30,148	30,442	29,859	26,986
22	Transportation of things.....	1,132	1,295	1,198	695
23	Rent payments, Comm. and Utilities.....	65,793	65,735	65,705	65,027
24	Printing and reproduction.....	1,099	970	966	966
25.0	Other contractual services.....	492,817	18,326	15,335	6,620
25.1	Contractual Services Performed by				
	Other Federal Agencies.....	60,603	55,769	53,468	43,975
25.2	Related Expenditures.....	4,067	3,850	3,830	3,830
25.3	Repair, Alteration or Maintenance of				
	Equipment, Furniture or Structure.....	10,822	6,698	6,588	6,588
25.4	Contractual Services - Other.....	61,033	57,281	45,550	32,606
25.5	Agreements.....	346,069	237,653	224,922	206,081
25.6	IT Services and Supplies.....	2,425	4,153	4,153	4,153
25.7	Operation and maintenance of equipment.....	10,001	12,798	8,544	8,544
25.8	Subsistence and support of persons.....	959	800	793	793
26	Supplies and materials.....	45,607	62,468	44,170	37,396
31	Equipment.....	26,279	25,085	24,454	16,978
32	Land and Structure.....	240	564	564	564
41	Grants, subsidies and contributions.....	1,051	1,204	1,204	1,204
42	Insurance claims and indemnities.....	201,261	26,927	2,413	2,413
43	Interest and Dividends.....	25	903	883	883
	Total, other objects.....	1,361,431	612,921	534,599	466,302
99.9	Total direct obligations.....	1,801,449	1,081,044	1,013,634	927,536
	DHS Building Security Payments (included in 25).....	2,018	2,024	2,031	2,031
<u>Position Data:</u>					
	Average Salary, ES positions.....	\$175,942	\$178,019	\$180,942	\$184,380
	Average Salary, GS positions.....	\$67,945	\$69,208	\$71,344	\$72,700
	Average Grade, GS positions.....	9.20	9.30	9.40	9.40

Note: Total direct obligations does not include advances and reimbursements or Agricultural Quarantine Inspection User Fees.

*Fiscal Years 2015 and 2016, the actuals include obligations from the transfer of emergency funding from the Commodity Credit Corporation to address Avian Influenza.

ANIMAL AND PLANT HEALTH INSPECTION SERVICE

Shared Funding Projects
(Dollars in thousands)

	2015 Actual	2016 Actual	2017 Estimate	2018 President's Budget
Working Capital Fund:				
Administration:				
HR Enterprise System Management.....	-	\$86	\$86	\$105
Integrated Procurement Systems.....	\$1,524	1,618	1,619	1,654
Mail and Reproduction Services.....	143	140	212	208
Material Management Service Center (Beltsville Center).....	935	943	934	840
Procurement Operations Division.....	479	29	27	40
Subtotal.....	3,081	2,815	2,878	2,847
Communications:				
Creative Media and Broadcast Center.....	1,127	207	81	678
Correspondence Management:				
Correspondence Management.....	804	772	1,059	953
Finance and Management:				
Financial Management Services.....	7,941	6,412	7,254	6,800
Internal Control support Services.....	119	123	177	152
National Finance Center/USDA.....	2,054	2,128	2,212	1,999
Subtotal.....	10,114	8,663	9,643	8,950
Information Technology:				
Client Technology Services.....	406	198	3,853	3,588
National Information Technology Center/USDA.....	6,749	7,344	12,716	12,393
Enterprise Network Services.....	1,069	1,275	1,236	1,285
Subtotal.....	8,225	8,817	17,805	17,266
Total, Working Capital Fund.....	23,350	21,275	31,466	30,695
Department-Wide Reimbursable Program:				
1890's USDA Initiatives.....	203	229	293	264
Advisory committee Liaison Services.....	5	6	6	5
Classified National Security Information.....	73	82	89	80
Continuity of Operations Planning.....	155	145	165	148
Emergency Operations Center.....	165	169	183	164
Facility and Infrastructure Review and Assessment.....	33	31	35	32
Faith-Based Initiatives and Neighborhood Partnerships.....	28	28	31	28
Hispanic-Serving Institutions National Program.....	133	127	154	139
Honor Awards.....	6	5	6	5
Human Resources Transformation (Inc. Diversity Council).....	125	111	137	123
Identity & Access Management (HSPD-12).....	493	490	525	473
Medical Services.....	12	12	14	13
People's Garden	53	47	51	46
Personnel and document Security.....	152	120	134	121
Pre-authorizing Funding.....	277	269	289	260
Retirement Processor/Web Application.....	44	42	47	42
TARGET Center.....	102	104	113	102
USDA 1994 Program.....	53	50	61	55
Virtual University.....	145	144	155	139
Total, Department Shared Cost Programs.....	2,258	2,212	2,487	2,239

	2015 Actual	2016 Actual	2017 Estimate	2018 President's Budget
E-Gov:				
Budget Formulation and Execution Line of Business.....	7	6	6	6
Enterprise Human Resources Integration.....	154	142	152	152
E-Rulemaking.....	58	45	55	69
E-Training*.....	203	195	-	-
Financial Management Line of Business.....	12	11	10	10
Geospatial Line of Business.....	-	16	13	13
Grants.gov.....	-	28	1	1
Human Resources Line of Business.....	20	20	20	22
Integrated Acquisition Environment - Loans and Grants.....	138	-	-	-
Integrated Acquisition Environment.....	49	138	135	138
Total, E-Gov.....	642	602	392	411
Agency Total.....	26,250	24,089	34,345	33,345

* Moved to Working Capital Fund in FY 2017

ANIMAL AND PLANT HEALTH INSPECTION SERVICE

Status of Programs

Salaries and Expenses

SAFEGUARDING AND EMERGENCY PREPAREDNESS/RESPONSE

Current activities: Together with its stakeholders, APHIS promotes the health of animal and plant resources to ensure abundant agricultural products and services for U.S. customers. APHIS monitors and responds to potential diseases of livestock and wildlife, invasive species, suspected acts of agricultural bio-terrorism, and conflicts between humans and wildlife as it strives to assure its stakeholders that it is on guard against the introduction or re-emergence of animal and plant pests and diseases that could limit agricultural production.

When a pest or disease is detected in the United States, APHIS works cooperatively with other Federal, State, Tribal and industry partners to conduct plant and animal health monitoring programs to rapidly diagnose them and determine if there is a need to establish new pest or disease management programs. APHIS, in conjunction with States, Tribes, industry, and other stakeholders, protects American agriculture by eradicating harmful pests and diseases or, where eradication is not feasible, by minimizing their economic impact. The Agency monitors endemic pests and diseases through surveys to detect their location and through inspection to prevent their spread into non-infested parts of the country.

The Agency maintains a cadre of trained professionals prepared to respond immediately to potential animal and plant health emergencies. Program personnel investigate reports of suspected exotic pests and diseases and take emergency action if necessary. To facilitate these efforts, APHIS develops pathway studies and thoroughly investigates the progression of outbreaks to determine the origin of plant and animal pests and diseases. APHIS also actively engages State, Tribal, and local governments, and industries to advance their emergency preparedness and response capabilities.

APHIS protects agriculture from detrimental animal predators through identification, demonstration, and application of the most appropriate methods of control. APHIS also develops methods to control animals and pests that are detrimental to agriculture, wildlife, and public safety. The Agency's regulatory structure brings the benefits of genetic research to the marketplace, while protecting against the release of potentially harmful organisms into the environment. APHIS also conducts diagnostic laboratory activities that support the Agency's veterinary disease prevention, detection, control, and eradication programs. The Agency also provides and directs technology development in coordination with other groups in APHIS to support plant protection programs of the Agency and its cooperators at the State, national, and international levels.

Selected Examples of Recent Progress - Animal Health:

1. Animal Health Technical Services

APHIS' Animal Health Technical Services Program enhances the tools available for acquiring and managing information vital for maintaining and improving global market access. Incorporating national surveillance data standards into data management applications enables animal health information, which Federal, State, Tribal, and private individuals enter in multiple systems, to be compiled nationally, thus leveraging the work of animal health professionals nationwide to meet local, State, and national veterinary health objectives. Accredited, private veterinarians, trained by APHIS, help producers meet both export requirements and disease program standards. This allows U.S. animals and animal products to compete in the global economy. Disease transmission and spread models, developed and shared by the Agency, allow improved planning and management of animal health incidents.

Animal Disease Traceability (ADT)

The national ADT framework allows Federal, State, Tribal, and private animal health professionals to work together to identify diseased animals, quickly trace their movements, and control disease spread to protect the livestock industry, whose production value was approximately \$79 billion in 2015 (National Agricultural Statistics Service,

USDA). Knowing where diseased and at-risk animals are located helps preserve animal health; reduce animal illnesses and deaths if outbreaks occur; ensure a rapid response in case of an animal disease event; and decrease the cost to producers, consumers, and the government. Such a system also assures our trading partners that USDA is committed and able to rapidly contain an animal disease event.

This program continues to progress toward developing a system that is effective, flexible, and increases the timeliness of retrieving traceability data. Each year, APHIS provides cooperative agreement funds to States to help them establish and maintain their own ADT programs. At the end of FY 2016, 100 percent of States receiving cooperative agreement funds had an ADT strategic plan in place. In addition, in FY 2016, APHIS continued to work with States and industries to increase the availability of electronic interstate certificates of veterinary inspection (ICVI), which are the primary documents, used to obtain animal movement information. This practice minimizes the regulatory burden on producers when they ship livestock to other States. Electronically stored ICVIs are easier to search than paper documents and increase the efficiency of animal health officials.

APHIS measures success based on the ADT Program's ability to trace animals during disease events. The Agency has established a national baseline tracing capability by evaluating activities, referred to as Traceability Performance Measures (TPM), which animal health officials typically conduct during an investigation of livestock that have moved interstate. These activities measure a State's ability to properly administer record and retrieve documents pertaining to official livestock identification and interstate movement.

The table below provides a comparison of results starting in FY 2014, when the national baseline tracing capability was established, to FY 2016. Two values are measured for each TPM. The "Percent Successful" value represents the percentage of time the information was successfully retrieved for each activity, while the "Time" value reflects the average lapsed time it took the State to complete each activity. The lapsed time decreased for all four TPMs in both FY 2015 and FY 2016. For example, for TPM 2 the time decreased from 88 hours in FY 2014, to 35 hours and 29 hours respectively in FY 2015 and FY 2016.

In addition, the total number of trace records assigned, or initiated, and the number of traces completed are used to reflect the frequency with which information was successfully retrieved to answer the question posed by each TPM. Since FY 2014, we have seen progress in reducing the amount of time to trace information in all of the four TPMs.

Two-Year Comparison to National Baseline Values

Performance Activity Description	FY 2014 National Baseline		FY 2015 1 st Year Comparison		FY 2016 2 nd Year Comparison	
	Percent Successful	Time to Retrieve Information	Percent Successful	Time to Retrieve Information	Percent Successful	Time to Retrieve Information
1. In what State was an imported animal officially identified?	N/A	N/A	88%	39 hr.	97%	20 hr.
2. Where in the State was the animal officially identified?	69%	88 hr.	88%	35 hr.	87%	29 hr.
3. From what State was an animal shipped?	58%	138 hr.	85%	42 hr.	86%	32 hr.
4. From what location was an exported animal shipped?	76%	264 hr.	88%	46 hr.	91%	41 hr.

The emphasis placed on record keeping systems, particularly electronic systems, to retrieve data associated with the TPMs has resulted in a favorable trend demonstrating improved traceability completion time and, for the most part, a greater number of TPMs successfully completed. It is important to acknowledge that the data used for the national baseline values reflects time to retrieve information prior to the implementation of the ADT program.

In 2016, the Agency supported electronic identification demonstration projects utilizing ultra-high frequency (UHF) radio frequency technology through eight cooperative agreements with the States of California and Hawaii (joint agreement), Colorado, Florida, Michigan, Montana, Oklahoma, Tennessee and Wisconsin. The objective of these demonstration projects was to document the potential merit using UHF technology for the collection of official livestock identification and animal health information to support disease traceability and animal disease control programs. Overall, the UHF tags and technology worked well and as expected. Ultimately, the industry will drive the successful utilization of UHF tags for management and marketing purposes. The utilization of UHF technology is likely to advance and grow as more fine-tuning of the equipment and tags is achieved.

Information Management

APHIS develops new information management systems, while maintaining and improving existing data systems and applications. APHIS makes these systems available to States and Tribal Nations, who then use them to support their traceability plans and other animal health activities. The following are examples of how APHIS maintained and improved applications and data systems in FY 2016.

The Surveillance Collaboration Services (SCS) collects cattle and swine program data and provides it to program managers in a standardized format. Federal and State animal health officials working in partnership to collect program specific data such as bovine tuberculosis test results to support APHIS' animal health surveillance and disease program activities. The data collected through SCS provides the capability to achieve State and National goals for animal disease prevention, detection, and early response for protection of the national herd. In FY 2016, the program implemented the Advanced Demand Management system.

The Laboratory Messaging Service (LMS) is a centralized repository for laboratory test results. LMS accepts properly formatted test result messages for any disease with only a slight configuration change to add the laboratory identifier or the program identifier for the disease. Surveillance analysts and emergency response programs use the LMS repository in decision-making. In FY 2016, APHIS:

- Improved the test environment by making it easier for labs to test message LMS and make it more consistent with the other test environments;
- Added a server repository that provides the LMS with increased availability, flexibility, and adaptability as programs need change when managing test results; and,
- Developed an Export Test result report that will be used to replace a paper-intensive process involving faxed test results.

In FY 2016, APHIS began to develop the Comprehensive Laboratory Submission Module (CLSM) that will provide a prototype system with multiple modules for various program units across APHIS to use. The system is intended to: 1) provide a robust means of collecting and integrating standardized collection site sampling, test order, and epidemiological information with the lab test results for the samples; 2) integrate with the LMS; and, 3) allow flexibility and dynamic changes for critical information. This system will maximize efficiency, improve business processes, and facilitate Comprehensive and Integrated Surveillance. In FY 2016, the CLSM was able to build and deploy a mobile application to support a pilot project led by the Center for Epidemiology and Animal Health-Risk Identification team for enhanced passive surveillance using data collected at slaughter plants in Texas. In addition, the CLSM analyzed scrapie data flow from analysts to modernize, validate, and improve analytical reporting for the Scrapie program.

Modeling

APHIS uses models to improve the understanding of historical events, estimate future consequences, and inform strategic, logistical, and budgetary decisions by evaluating the effectiveness of varying interventions. In FY 2016, the Agency focused on development of a hybrid equation and agent-based model for disease spread as well as a predictive tick species distribution model. Ohio State University created the hybrid model to investigate the effects of index premises' production type, overall producer behavior, and the clustering of behaviors on outbreak size, makeup, and duration.

In addition, APHIS developed a collaborative relationship with the Agricultural Research Service's Foreign Animal Disease Research Unit at the Plum Island Animal Disease Center to improve our ability to accurately model foreign animal diseases such as foot-and-mouth disease, African swine fever, and classical swine fever through targeted analysis of previous clinical studies, studies of endemic FMD epidemiology and ecology, and prospective (targeted) animal experiments. This effort will help fill identified knowledge gaps related to modeling these diseases and alternative control strategies. Oklahoma State University also supported model parameter development with their data collection on stocker cattle sources, movements, and marketing as well as quantification of direct and indirect contacts between and among cervid and domestic cattle by the University of Wyoming.

National Veterinary Accreditation Program (NVAP)

More than 66,000 highly trained accredited veterinarians act as the first line of defense for reportable domestic and foreign animal diseases. The voluntary NVAP authorizes private veterinary practitioners to work cooperatively with Federal veterinarians and State animal health officials to report when these diseases are suspected. This provides the first step in rapid diagnosis, quarantine, and other control measures to safeguard our nation's animal and human health. Accredited veterinarians also provide official animal, flock, and herd health certifications, disease testing, and traceability practices for billions of animals each year. Three-year training and renewal requirements, which began in 2011, provide increased knowledge of animal disease surveillance, prevention, zoonosis, judicious use of antimicrobials, animal welfare, and disaster preparedness. Since 2011, more than 60,000 veterinarians successfully renewed their accreditation. APHIS now hosts 28 web-based supplemental training modules for accredited veterinarians. Since FY 2011, accredited veterinarians have completed more than 370,000 web modules, with more than 22,000 modules completed at veterinary conferences nationwide. In FY 2016, NVAP entered into a cooperative agreement with Iowa State University's Center for Food Security and Public Health to obtain Registry of Continuing Education (RACE) approval of its web-based training modules, which will greatly enhance the program's outreach. Offering no-cost RACE-approved continuing education will expand the program's audience from 66,000 to more than 200,000 users by including non-accredited veterinarians, veterinary technicians, and veterinary students.

2. Aquatic Animal Health

The Aquatic Animal Health Program provides guidance, support, and standards that aim to protect the health and marketability of U.S. farm raised aquatic animals and natural resources. This program's guidance and standards allow for attestations (witnessing signatures to ensure that a document is properly signed) and certifications of aquatic animal health for domestic and international trade, valued at \$1.5 billion in 2015 (National Agricultural Statistics Service). The program carries out activities consistent with the National Aquatic Animal Health Plan (NAAHP) and continues dialogue with the National Oceanic and Atmospheric Administration (NOAA), the U.S. Fish and Wildlife Service (FWS), and NAAHP partners on issues related to implementation of the plan.

This program relies on collaborations with Federal, State, and commercial entities to protect the health and value of U.S. farm raised aquatic animals. In FY 2016, APHIS collaborated with the National Aquaculture Association to continue work on the Commercial Aquaculture Health Program Standards (CAHPS). The CAHPS establishes a non-regulatory framework for the improvement and verification of the health of farm raised aquatic animals produced in the United States. This effort positions commercial producers in domestic and international trade markets, and helps the commercial aquaculture industry demonstrate adherence to sound practices for aquatic animal health. The goal of CAHPS is to support various business objectives, including improved health management, protection and expansion of aquaculture business opportunities, promotion and facilitation of trade, and improved resource protection. In FY 2016, APHIS developed three pilot programs to evaluate CAHPS principles and determine how CAHPS could best be administered in different aquatic production operations and States. One CAHPS pilot is being conducted in North Carolina with an indoor tilapia grower cooperative. The other two pilot projects are with Atlantic salmon cultured in Washington and Maine. Also in FY 2016, APHIS supported pilot projects with Maine and Rhode Island to evaluate the efficiency and feasibility of conducting surveillance for molluscan pathogens by zoning, which models one of the health designations offered through CAHPS.

Infectious salmon anemia virus (ISAV) is a highly infectious disease causing mortality, primarily in Atlantic salmon. The State of Maine, in partnership with APHIS, assists with ISAV surveillance for Maine producers. There

were no positive findings in FY 2016, and this effort is continuing in FY 2017. In FY 2016, APHIS completed a three-year surveillance study involving wild and farm raised salmon in Alaska and Washington State. As part of this study, the Agency worked with NOAA, FWS, the U.S. Geological Survey, the States of Washington and Alaska, and the Northwest Indian Fisheries Commission to assess the probability of its occurrence in this region. Almost 5,000 samples from cultured and wild fish were submitted for ISAV testing and all tested samples were negative. APHIS released an updated ISAV Factsheet on its website in August 2016, and is working with the collaborating agencies to produce a manuscript for submission to a peer-reviewed journal. Also in FY 2016, APHIS partnered with collaborators to conduct a survey on the trout and salmon sector to determine the current and projected regulatory costs and challenges. Results from this project support the need to harmonize existing regulations and demonstrate how a CAHPS program, when recognized by States, could facilitate this process. This project adds to the economic data collected in FY 2015 for the bait and sport fish sector.

Historically, this program has relied on various institutions for conducting aquatic animal diagnostic testing with limited oversight of testing accuracy. In FY 2016, the program added spring viremia of carp virus (SVCV) to the National Animal Health Laboratory Network (NAHLN) repertoire of standardized testing. In conjunction with this standardized testing, APHIS developed and administered protocols and proficiency tests for ISAV, SVCV, and viral hemorrhagic septicemia virus. Incorporating these pathogens into the NAHLN will help standardize aquatic animal pathogen testing and build our Nation's capacity to respond to aquatic animal disease outbreaks, support surveillance, and maintain/expand U.S. export markets and other regulatory purposes that are accessible, timely, accurate, and consistent. Also in FY 2016, APHIS initiated proficiency testing panels for USDA-approved laboratories performing export testing. These panels will be delivered to the participating labs in FY 2017.

In FY 2016, the program worked on incorporating aquaculture and aquatic animal health activities into the Agency's core animal health surveillance database. The database supports routine animal health surveillance and program management, and fulfills an Agency goal of providing comprehensive, coordinated, and integrated animal health surveillance and program management software that serves as the foundation for animal health, public health, food safety, and environmental health. In addition, it supports the function of managing data related to animal health surveillance and response to animal health events. Well-managed surveillance data is the foundation for animal health activities that include domestic disease control and eradication programs, support of emergency preparedness and response, and international trade.

In FY 2016, the program completed a new aquatic animal health module for APHIS' National Veterinary Accreditation Program to cover significant diseases in koi carp and goldfish. This module should help private veterinary practitioners identify high-consequence diseases affecting these popular pet fish species. In addition, APHIS hosted a mollusk export training course for APHIS personnel. Further, the Agency began initial planning for the first aquatic foreign animal disease training which will be held in FY 2017.

3. Avian Health

The Avian Health Program protects the U.S. poultry industry, valued at \$48 billion in 2015 (USDA, National Agricultural Statistics Service), while facilitating agricultural trade in poultry and poultry products. This program consists of the surveillance, prevention, and control of avian diseases; disease threat planning and response; international avian health activities; and modeling activities. APHIS' surveillance programs detect foreign, zoonotic, and domestic diseases that could substantially impact domestic production and the economy. Surveillance information can facilitate trade and protect public health by demonstrating that certain diseases do not exist in the poultry populations. Prevention and control programs minimize the threat of disease introductions and protect the value of poultry markets. The Agency also maintains regulations and national program standards and guidelines that direct avian health activities at the Federal, State, and Tribal levels. Maintaining these standards supports interstate and international commerce by providing assurances regarding the health of avian species and products being moved or traded. In addition, this program initiates emergency response activities when cases of highly pathogenic avian influenza (HPAI) are detected. Lastly, APHIS uses models to improve the understanding of historical events, estimate future consequences, and inform strategic, logistical, and budgetary decisions by evaluating the effectiveness of varying interventions.

Surveillance, Prevention, and Control of Avian Diseases

The National Poultry Improvement Plan (NPIP) is a cooperative Federal-State-industry program through which participants can use diagnostic technology to guard against disease incursion and enhance the marketability of poultry and poultry products. The NPIP has 49 States participating in the avian influenza (AI) prevention and control program, with participation from more than 95 percent of commercial broiler, turkey, and egg industries and the entire poultry breeding industry. In addition, the NPIP has approximately 100 authorized laboratories with trained technicians approved to provide diagnostic testing. The number of NPIP-authorized laboratories can change each year or multiple times during the year. The NPIP hosted three diagnostic laboratory training workshops in FY 2016 for mycoplasma, *Salmonella*, and AI. To safeguard against future AI outbreaks, APHIS requested the poultry industry strengthen its biosecurity plans. As one of the first steps to improving biosecurity, the 2016 NPIP Biennial Conference delegation unanimously adopted Biosecurity Principles Management to be part of the NPIP. The delegation is comprised of representatives from the poultry industry, State health entities, and USDA. The practices and principles in the Biosecurity Principles Management Plan are designed to prevent the introduction and spread of infectious diseases. The NPIP General Conference Committee proposed an oversight system for the implementation of biosecurity principles that includes an auditing component under the NPIP. APHIS plans to finalize an audit instrument and training plans by the spring of 2017. Training and implementation will begin in the summer of 2017.

The Live Bird Marketing System (LBMS) is a marketing strategy used to supply fresh poultry meat to consumers. It has 38 States and the U.S. Virgin Islands participating in the AI prevention and control program. In most cases, live poultry are delivered to LBMS establishments and consumers select the bird(s) of their choice. State cooperators help conduct surveillance and diagnostic activities for the LBMS. LBMS testing is vital to prevent and control the disease in markets, but also among production premises and poultry distributors that supply those markets. In FY 2016, the States and the U.S. Virgin Islands conducted approximately 60,000 tests for AI surveillance in the LBMS, based on data received as of September 30, 2016. Complete FY 2016 data will not be available until after the cooperative agreements with States conclude on March 31, 2017. When these tests yield a presumptive positive result, APHIS' National Veterinary Services Laboratories (NVSL) will confirm the presence of H5/H7 low pathogenic avian influenza (LPAI) or HPAI.

APHIS conducts surveillance for AI in commercial poultry under the National H5 and H7 LPAI Control Program. Although most of the testing is performed locally, the NVSL provides reagents for some tests and performs confirmation and identification testing of presumptive positive specimens. As of September 30, 2016, APHIS performed approximately 990,000 tests for AI surveillance through the NPIP in FY 2016. Complete data for FY 2016 will be available after the cooperative agreements with States conclude on March 31, 2017. Since the H5/H7 LPAI LBMS prevention and control program began in 2004, the number of LBMS H5 and H7 AI positive premises has decreased steadily. In FY 2016, APHIS confirmed LPAI H5 in two live bird markets (LBMs), one each in Pennsylvania and New York. Both markets received birds from the same distributor in New York, which had sourced the birds from a supplier in Ontario, Canada. The Canadian Food Inspection Agency found this supplier to be positive for H5N2 LPAI. APHIS worked with States to test or quarantine all LBMs in the northeastern United States that received birds from the distributor. Epidemiological investigations showed that 58 markets in New York, 18 markets in New Jersey, and 8 markets in Pennsylvania received birds from this distributor during the relevant time period. Seventeen of those markets – nine in New Jersey, seven in New York, and one in Pennsylvania – tested positive for LPAI H5. APHIS characterized these viruses as LPAI H5N2 originating from 'native' North American LPAI. They did not appear to be related to the Eurasian H5 viruses from 2014-15. APHIS demonstrated that the virus associated with the Canadian supplier was the same virus associated with the spread in the U.S. LBMs. The positive markets were allowed to sell down for up to five days and then depopulated, cleaned, and disinfected according to established standards. All markets were approved to restock by the end of July 2016.

In FY 2016, the primary focus of the Avian Health surveillance program was the early detection of HPAI in wild birds. APHIS coordinated the collection and laboratory analysis of more than 42,000 wild bird samples to assess the potential risk of HPAI to birds of conservation concern. Most of these samples were taken from waterfowl, and several hundred samples were collected from raptors. In addition, the Agency worked with researchers in Canada and China on HPAI surveillance and at Mississippi State University on ecological-genetic studies. APHIS tested 2,350 serum samples for exposure to Newcastle disease virus, and cultured 660 bird tissues for *Salmonella* infection.

in birds associated with agricultural feedlots. The Agency also cooperated with the University of Texas to test more than 600 wild bird serum samples for exposure to Eastern equine encephalitis virus, West Nile virus, St. Louis encephalitis virus, and Turlock virus. Other projects include providing avian swab samples from the Wild Bird Tissue Archive to Texas A&M University for Bornavirus research, and to University of Connecticut researchers to validate a rapid, pen-side diagnostic test for AI.

Also in FY 2016, APHIS worked to prevent and deter the entry of HPAI by initiating four cases involving avian health issues. In one case, APHIS conducted a fact-finding investigation and, through interviews, educated an ostrich breeder about ostrich importation requirements. In three cases, after conducting investigations, APHIS issued Official Warnings to importers of hatching eggs without veterinary health certificates to formally educate the importers about the risks and requirements of hatching egg importation.

Disease Threat Planning and Response

APHIS also continues to ensure that proper equipment is available in the event of an AI outbreak. In FY 2016, the Agency trained 24 employees and fit-tested 420 personnel for appropriate respiratory protection for use in responding to an outbreak. In addition, APHIS purchased four fit-test kits for use in fit testing, and maintained and calibrated the 32 fit-testing units to ensure they are consistently available to support the Agency's requirements.

In FY 2016, APHIS continued working intensively with primary breeders in the United States to establish the U.S. H5/H7 AI Clean Compartment Classification (AICCC) for defined subpopulations of primary breeding turkeys and modified AICCCs for defined subpopulations of primary egg-type breeding chickens and primary meat-type breeding chickens. These classifications are based on OIE compartmentalization guidelines. These classifications add an option for producers to ensure uninterrupted trade in breeding establishment flocks and products in case of an AI outbreak. In FY 2016, the NPIP held several meetings with the primary breeders to draft compartmentalization management guidelines, audit checklists, auditor requirements, and associated applications. APHIS published compartmentalization management guidelines in the *Federal Register* in FY 2016 and received several favorable comments from the poultry industry. APHIS also published these guidelines in the NPIP Program Standards. The Agency, in collaboration with the primary breeding industry, is in the planning stages for the first compartmentalization auditor training workshop.

To ensure the poultry industry maintains worldwide competitiveness, it is essential to quickly detect and address endemic, emerging, and foreign disease threats. To address these threats, APHIS is developing comprehensive surveillance activities to optimize sampling strategies and minimize the costs to achieve surveillance goals. In FY 2016, APHIS funded State efforts to address significant poultry diseases of economic and zoonotic concern including *Mycoplasmosis*, infectious bronchitis, *Salmonellosis*, very virulent infectious bursal disease, and infectious laryngotracheitis. These activities enable the United States to certify to our trading partners that many classes of poultry originate from flocks that are monitored or free of diseases.

International Avian Health Activities

Overseas, APHIS facilitates agricultural trade, works with agricultural officials, monitors agricultural health, and supports efforts in sanitary and phytosanitary standard setting. In addition, the Agency works with the USDA Foreign Agricultural Service and the U.S. Trade Representative's Office to maintain a coordinated, strategic approach to resolving avian health issues that affect U.S. exports. Further, APHIS coordinated with the World Organisation for Animal Health (OIE) and other international organizations to assist with disease prevention, management, and eradication activities in regions affected with HPAI. In FY 2016, APHIS delivered more than 15 capacity building activities in the areas of biosecurity, poultry disease diagnostics, quality assurance in the laboratory, poultry and wildlife surveillance, and sampling collection. Assisting other countries reduces the risk of the disease spreading from overseas to the United States. To open markets for U.S. poultry, APHIS negotiates protocols for trade of poultry and related products. When markets close to certain States or regions in response to LPAI detections, APHIS provides science-based rationales to reopen markets, coordinates informational visits and exchanges, facilitates the U.S. industry's access to foreign decision-makers, and participates in negotiations.

Each year, APHIS sponsors and staffs the Crisis Management Center for Animal Health at the Food and Agriculture Organization (FAO) of the United Nations, in Rome, Italy. APHIS provides two full-time veterinarians for this Center, which helps countries respond to and contain animal disease threats. It provides assessments, guidance, and resources to enable rapid response to animal disease outbreaks in countries where the United States would have difficulties placing personnel or responding bilaterally. This approach reduces the threat of disease outbreaks from becoming widespread and evolving into pandemics. In addition, APHIS ensures that U.S. trading partners adhere to the Sanitary and Phytosanitary rules of the World Trade Organization, as well as the other relevant international standard-setting organizations, as the United States and FAO-Rome expand their cooperating relationships and establish new partnerships.

Modeling

In FY 2016, the Agency purchased data from a company that provides customers in the avian industries with statistical services to identify efficiency opportunities and to facilitate informed decisions. APHIS used this data to update the cost estimates in models determining egg layer, turkey, and broiler indemnity values for breeder and meat birds. In addition, APHIS advanced the functionality of the Animal Disease Spread Model (ADSM) by creating a production version of it, providing a user-friendly installation package for the application. The Agency also made available a beta version of ADSM that provides an environment that can be used for testing and quick turnaround on correcting system flaws. APHIS completed a separate beta version of ADSM with Vaccination Rings and Vaccination Priorities, and will be piloting ADSM in FY 2017 to aid State-level planning for potential HPAI outbreaks in Kansas. Having vaccination rings and different priorities for species vaccinated in the model allows the program to explore different implementation strategies for vaccination in the event of an outbreak. The rings are geographic boundaries within which vaccination is applied. The ADSM upgrades allow APHIS to place vaccination rings of varying sizes around infected farms. The priorities piece of the model allows the Agency to select which species or farm types get vaccinated first, second, third, etc. until the supply is exhausted. APHIS can then test the effect of modifying ring size or prioritization on outbreak size and severity.

The Agency's applied work focused on designing modeling scenarios, constructing model configurations, and presenting statistical analysis of outputs for the HPAI/LPAI outbreak in Indiana, as well as follow up work on current and proposed surveillance. In addition, the flat rates that APHIS estimated and paid to producers for on-farm HPAI virus elimination activities after bird depopulation underwent successful initial application in the Indiana outbreak, as did the application of the outbreak stockpile antiviral and personal protective equipment dashboard for the National Veterinary Stockpile. Finally, the Agency collaborated with Kansas State University and Colorado State University on export recovery quantity work, which provided additional information for input into models to estimate the economic impact of poultry disease outbreaks.

4. Cattle Health

The Cattle Health Program protects cattle health and improves the quality, productivity, and economic viability of the \$115 billion U.S. cattle industry, which includes cattle sales and milk production (National Agricultural Statistics Service, 2015). The Cattle Health Program has two major goals. One, to rapidly detect and respond to diseases that could significantly affect the U.S. cattle and bison population. Two, to prevent the spread of any newly detected disease in the United States as well as endemic domestic cattle and bison diseases of concern.

APHIS activities in the Cattle Health Program include surveillance and monitoring, disease prevention, disease investigation, and outbreak response actions. In addition, APHIS maintains regulations, national program standards, and guidelines that direct activities at the Federal, State, and Tribal level. Establishing and maintaining these standards is a vital Federal responsibility that supports interstate and international commerce by providing assurances about the health of animals and products being moved or traded.

In FY 2016, APHIS conducted surveillance for foreign, emerging, and endemic diseases, including bovine tuberculosis (TB), brucellosis, and bovine spongiform encephalopathy (BSE). In addition, the Agency conducted surveillance for disease vectors, such as the cattle fever tick (CFT). The Agency conducts surveillance through cattle testing at slaughter facilities, livestock markets, shows, sales, buying stations (first point testing), on-farm, and rendering facilities (operations that collect dead, dying, disabled, and diseased animals). APHIS also continued

working with neighboring countries to exclude foot-and-mouth disease (FMD), screwworm, and other cattle diseases. The following are examples of the Agency's efforts to protect cattle health during FY 2016.

Bovine tuberculosis

Bovine TB primarily affects cattle, but has the potential to affect other animal species and humans as well. APHIS' surveillance for this disease includes testing live cattle and using slaughter surveillance data from the USDA's Food Safety and Inspection Service. Since the bovine TB program began in 1917, it has significantly decreased the prevalence of the disease in U.S. livestock. Today the prevalence rate in cattle herds is at less than 0.001 percent. For FY 2016, 143 Federal and State-inspected slaughter establishments submitted 6,401 samples for program testing. Through this surveillance, the program detected TB in 15 animals: one adult cow of Canadian origin, six beef steers tracing to a single affected herd in Indiana, and eight other cases in feeder cattle.

In FY 2016, APHIS identified five TB affected beef herds in the United States: four in Michigan and one in Indiana. APHIS uses a mix of depopulation and test-and-removal strategies to address bovine TB-affected herds that considers herd size, potential indemnity costs, State and owner preferences, genetics, and the probability of removing infection. One Michigan herd was depopulated with State funds while three are under a test-and-remove protocol. The Indiana herd was depopulated with Federal funds that included appropriated funding as well as emergency funds transferred from the Commodity Credit Corporation in late FY 2015. The Cattle Health Program has five State bovine TB classifications. A higher prevalence rate results in more restrictive movement requirements. The classifications are, in descending order: accredited free, modified accredited advanced, modified accredited, accreditation preparatory, and non-accredited. Michigan is currently composed of two classification zones: accredited free and modified accredited status. California was classified as modified accredited advanced but regained TB accredited free status in FY 2016. At the end of FY 2016, 49 States, two Territories (Puerto Rico and the U.S. Virgin Islands), and one zone were TB accredited free.

Bovine brucellosis

Bovine brucellosis is an infectious disease that can cause decreased milk production, weight loss, abortions, infertility, and lameness, and negatively impact the livelihood of cattle producers and the supply of meat and dairy products. All 50 States, the District of Columbia, Puerto Rico, and the U.S. Virgin Islands have been Class-Free since July 2009, because of the Federal and State brucellosis eradication efforts. Class-Free States with brucellosis in wildlife work with APHIS to implement a State brucellosis management plan (BMP). Each BMP explains the basis for the area identified; describes the epidemiologic assessment and surveillance activities to determine if wildlife populations are affected; and describes surveillance activities and mitigation activities for cattle, bison, and wildlife. In FY 2016, APHIS tested approximately two million head of cattle under the Market Cattle Identification slaughter surveillance program and cattle at livestock markets. The Agency, in conjunction with the States, also tests cattle and domestic bison on farms or ranches for movement, private sale, issue of herd certification, and for show or exhibition purposes. In FY 2016, approximately four million calves and 127,348 adult cattle were vaccinated for brucellosis, and approximately 914 herds were certified as brucellosis-free cattle herds (compared to 513 herds in FY 2015). Since many producers no longer have to incur the cost of maintaining annual whole herd testing for certification, the number of certified-free herds varies year to year based on the producers' need for livestock movement. Accredited veterinarians perform most of the vaccinations and the collection of samples, with APHIS performing the rest. State laboratories test the samples.

In FY 2016, Idaho and Wyoming released one beef herd each from quarantine that were detected with brucellosis in FY 2015, leaving only one Montana herd still under quarantine. However, in FY 2016, Wyoming found two additional affected beef herds with one being released after three negative whole herd tests and the other still under quarantine. There is no indication that brucellosis has spread outside the Greater Yellowstone Area. This area is APHIS' main focus for brucellosis in livestock because the disease is endemic there in wild elk and bison. The Agency continued carrying out the national bovine brucellosis slaughter surveillance plan.

In December of 2015, APHIS published a proposed comprehensive brucellosis and bovine TB rule in the *Federal Register* and public comments were accepted until May 2016. This rule is designed to modernize program regulations and reduce administrative burdens placed on producers while maintaining cattle health, consumer

confidence, and trade opportunities. The documents are predicated on: the regulatory framework developed by a joint TB and Brucellosis Regulatory Working Group published in the *Federal Register* in May 2011; the comments received regarding the proposed rule; and, FY 2011 and FY 2012 stakeholder feedback. The Agency is reviewing and responding to FY 2016 comments.

Bovine spongiform encephalopathy

APHIS reduced the BSE surveillance-sampling target from 40,000 to 25,000 cattle. The Agency tested 26,538 cattle in FY 2016. The modified surveillance efforts reduce the overall cost while maintaining surveillance at levels that continue to exceed international standards. The current contract for sampling is up for renewal in 2017. To prepare for the next solicitation for sampling contracts, program and contracting staff are considering options to reduce the number of sampling contractors while improving the distribution and quality of samples collected. All options considered will continue to exceed the World Organisation for Animal Health's international surveillance standards.

Cattle fever tick

Cattle fever is a disease transmitted by ticks that caused losses to the 1906 cattle industry equivalent to more than \$3.5 billion in today's dollars. The Agency focuses on controlling the spread of tick species that transmit the infectious agent through the inspection of livestock before they leave quarantined areas, surveillance at local markets, inspection of hunter-killed white-tailed deer and other exotic ungulates, and horseback river trail patrols to capture stray and smuggled Mexican livestock who may carry ticks into the United States. In FY 2016, APHIS conducted 16,657 inspections of individual premises for ticks, including 5,142 river trail patrols. A premise is considered infested when fever ticks have been found on livestock or wildlife that have been on the premises for more than 14 days. In FY 2016, APHIS identified 42 newly infested premises inside the buffer zone, 13 more than in FY 2015. A premise is considered affected when there has been probable cause to investigate a quarantine zone for fever ticks. Probable cause for investigation includes adjacent premises bordering an exposed or infested premises; or premises separated by roads, double fences, or fordable streams. There were 44 newly affected premises at the end of FY 2016 outside the border, 16 more than FY 2015. In addition, 33 of 60 stray cattle captured along the border were infested with CFT, and 8 of the 30 stray horses/mules were infested.

The United States remains free of cattle fever. There is a permanent quarantine buffer zone established between Texas and Mexico. Bordering Mexican states harbor tick species, which carry the disease, and tick-infested white-tailed deer and exotic hoofed mammals near the U.S./Mexico border can bring the ticks into the United States. APHIS controls CFT along the quarantine line using a partial tick control barrier fence, livestock movement quarantines, and tick treatments for cattle and deer. To prevent the spread and re-establishment of the tick vectors, the program designated a permanent quarantine area along 500 miles of the Mexican border from the Gulf of Mexico to Del Rio, Texas, and established a cooperative Federal-State program. To release a quarantine area, every infested premise must have all cattle treated for at least nine months, including inspections and treatments every two weeks. As a result, APHIS conducted 124,112 individual animal inspections and 51,940 treatments throughout South Texas. In FY 2016, the quarantine buffer zone and the free area of Texas contained 86 newly quarantined premises, compared to 57 in FY 2015.

In 2014, the Texas Animal Health Commission (TAHC) and the USDA confirmed the presence of CFT on Cameron County premises located outside of the permanent quarantine zone. To protect the premises and animals from exposure to CFT, the TAHC created a temporary preventative quarantine area in Cameron County. Surveillance efforts have been ongoing since the temporary preventative quarantine area went into effect. Additional infested premises were identified outside of the permanent quarantine zone in FY 2016. APHIS released \$1.7 million from the Agency's contingency fund in FY 2016 to address the additional infestations and control the spread of CFT. In addition, APHIS is working with the TAHC, the Agricultural Research Service, and a major veterinary pharmaceutical company to evaluate an anti-tick vaccine for cattle within the permanent quarantine buffer zone in South Texas with a plan to expand to a larger population.

Screwworm

APHIS and its cooperators have eradicated screwworm from the United States, Mexico, Belize, Guatemala, Honduras, El Salvador, Nicaragua, Costa Rica, and Panama. APHIS' international efforts prevent the reestablishment of screwworm in the United States by leading efforts with Colombia, Panama, Mexico, and Central American countries to maintain a biological barrier zone in the Darien Gap, a narrow 102-mile stretch of jungle along the border of Colombia and Panama. The program relies on field operations and sterile insect technique, a process where APHIS produces and sterilizes insects at a joint facility in Panama and releases them into the wild to mate with wild insects, thereby preventing reproduction. This is a proven method to reduce insect populations. The United States also has access to those sterile flies in the event of an outbreak in U.S. territory. APHIS produces approximately 20 million sterile flies per week at its Panama rearing facility. In FY 2016, there were 64 positive cases out of 142 field samples in the barrier zone, a significant increase over the 19 detections in FY 2015. In response, the program increased epidemiological trace-back and trace-forward investigations of all positive cases and increased the number of field inspectors and inspections at animal movement control stations. Additionally, the program increased animal health education activities and implemented ground releases of sterile flies to supplement the aerial release of sterile insects at focus areas of cases. The program will continue increased surveillance activities in FY 2017, in the screwworm barrier zone.

To address threats of potential introduction of other cattle diseases from overseas, APHIS maintains offices in foreign countries staffed with veterinarians and other agricultural specialists to monitor the presence of those diseases. They actively seek and maintain relationships with veterinary staff in other countries that are charged with making determinations on the movement of commodities to the United States. APHIS personnel also work with countries to build capacity and offer assistance to foreign counterparts experiencing outbreaks. For example, APHIS cooperates with the International Regional Organization for Agricultural Health (OIRSA) to conduct cattle health surveillance in Central America, targeting screwworm and vesicular diseases, including FMD. In FY 2016, APHIS provided manuals for emergency response to animal disease outbreaks, helped establish animal health education programs focused on screwworm and FMD for producers in Central American countries, participated in efforts to develop methods for tracking suspected screwworm and vesicular disease detections in Central American countries, and provided support to OIRSA's diagnostic laboratory.

On September 30, 2016, APHIS confirmed the presence of New World Screwworm in Key deer from the National Key Deer Refuge in Big Pine Key, Florida. Subsequent infestations of the disease were confirmed in 12 additional neighboring islands in the Florida Keys. These detections mark the first local screwworm infestations in the United States in more than 30 years. There have been no confirmed infestations on Florida's mainland. APHIS is partnering with animal health and wildlife officials at the State and Federal levels to address these findings. Program response efforts include fly trapping to determine the extent of the infestation, release of sterile flies to prevent reproduction, and disease surveillance to look for additional cases in animals.

5. Equine, Cervid and Small Ruminant Health

The Equine, Cervid, and Small Ruminant Health (ECSRH) program protects the health and improves the quality, productivity, and economic viability of the equine, cervid, sheep, and goat industries. APHIS activities include monitoring and surveillance, investigation and response, and disease prevention and preparedness actions taken when health issues are identified. The Agency's monitoring and surveillance activities detect foreign, emerging, zoonotic, and domestic diseases that could substantially impact the economy. APHIS also works with international and domestic trading partners to facilitate safe trade in equine, cervids, and small ruminants and their products and ensure that cases of diseases of trade concern are reported to the World Organisation for Animal Health. In 2016, the ECSRH Program conducted disease surveillance and/or monitoring for the following diseases: scrapie, bovine tuberculosis (TB), chronic wasting disease (CWD), vesicular stomatitis virus (VSV), contagious equine metritis, Eastern equine encephalitis, Western equine encephalitis, equine herpes virus, equine piroplasmiasis, equine infectious anemia, and West Nile virus.

The National Scrapie Eradication Program (NSEP) focuses on improving the health of the national sheep flock and goat herd, relieving sheep and goat producers of scrapie-associated economic losses and increasing international

marketing opportunities. Since 2003, the percentage of cull sheep sampled at slaughter that tested positive for classical scrapie has decreased by 99 percent. In FY 2016, APHIS collected samples from 39,978 cull sheep and goats for scrapie testing. As of September 30, 2016, the percent of cull sheep tested that were found positive at slaughter and adjusted for face color was 0.001 percent, compared to 0.004 percent in FY 2015. Based on the goats sampled at slaughter since FY 2003 and tested as of September 30, 2016, the prevalence of scrapie in U.S. cull goats is 0.003 percent.

Sheep and Goats

In FY 2016, the program identified one flock infected with classical scrapie and one infected with Nor98-like scrapie through slaughter surveillance, and two flocks infected with classical scrapie through on-farm surveillance. Two of these classical scrapie infected flocks, as well as one identified in FY 2015, completed flock cleanup plans in FY 2016. The other classical scrapie infected flock completed depopulation of high-risk exposed animals with disinfection to be completed in the first quarter of FY 2017. An additional 10 sheep were confirmed with classical scrapie through testing of sheep depopulated from these infected flocks as part of flock clean-up activities conducted in FY 2016. The Nor98-like scrapie affected flock will be placed on a 5-year monitoring plan.

The NSEP has a voluntary flock certification component, the Scrapie Free Flock Certification Program (SFCP). Participation in the SFCP enables producers to enhance the marketability of their animals by protecting them from scrapie and provides participants an avenue to export sheep and goats. At the end of FY 2016, 409 flocks were enrolled in the SFCP. Of these, 34 were export certified (scrapie-free), 98 were export monitored (working toward scrapie freedom), and 277 were select monitored (reduced scrapie risk).

On September 10, 2015, APHIS published a proposed rule in the *Federal Register* to amend NSEP regulations. The main changes include aligning similar identification and recordkeeping requirements for sheep and goat owners; formalizing the use of genetic testing to assign risk levels to sheep; and providing the APHIS Administrator with the authority to relieve requirements for sheep and goats exposed to scrapie types that do not pose a significant risk of transmission. APHIS took comments on the proposed rule through December 9, 2015. The Agency anticipates that a more flexible approach to disease investigations and affected flock management, and more consistent animal identification and recordkeeping requirements, will increase the effectiveness of the eradication program. APHIS also took comments on the draft NSEP standards through December 9, 2015. These standards contain cooperative procedures and standards that APHIS has adopted for eradicating classical scrapie from the United States. They are intended to help State and Federal animal health personnel implement the NSEP consistently and equitably. APHIS has reviewed the comments and is in the process of developing the final rule.

Cervids

To aid in the eradication of TB, APHIS provides a voluntary herd accreditation program for captive cervids and requires testing of cervids before interstate movement. In FY 2016, the program tested an estimated 10,750 animals and identified 18 TB suspects. Five of these animals were classified as TB reactors upon follow-up testing. The program necropsied all five reactors without significant findings and four were culture negative for TB, while one culture is still pending.

APHIS drafted a proposed TB/brucellosis rule that includes interstate testing requirements for captive cervids, and provides a comprehensive, flexible, and risk-based approach for managing TB and brucellosis. The proposed rule was published in the *Federal Register* for comment until May 15, 2016. The comments are currently under review.

APHIS' voluntary national CWD Herd Certification Plan (HCP) helps States, Tribes, and the cervid industry control CWD in farmed cervids by allowing the interstate movement only from certified herds considered to be low risk. Currently, 29 States participate in the national CWD HCP. In FY 2016, the program tested 14,503 farmed cervids for CWD and identified seven new CWD positive farmed cervid herds – two white-tail deer herds in Texas, three white-tail deer herds in Wisconsin, one elk herd in Colorado and one elk herd in Iowa. The elk herd in Colorado was depopulated without Federal indemnity and the rest of the herds are under State quarantines. One Texas herd used Federal indemnity to remove and test select animals to inform the epidemiological investigation and to evaluate

the performance of ante-mortem tests. The use of Federal indemnities within the CWD program is determined on a case-by-case basis.

APHIS is also conducting several pilot projects related to new technologies. In FY 2016, the Agency sponsored a pilot project in Ohio to evaluate the use of a new method for ante-mortem testing in whitetail deer known as rectoanal mucosa associated lymphoid tissue or RAMALT testing. A proof-of-concept pilot project was also performed by APHIS' National Veterinary Services Laboratories (NVSL) to evaluate ante-mortem biopsies of the medial retropharyngeal lymph node biopsy or MRPLN biopsy. APHIS anticipates implementing both types of ante-mortem testing in the future.

Beginning early September 2014, APHIS, in cooperation with the National Agricultural Statistics Service, conducted the first national study of the U.S. farmed cervid industry. The study surveyed 3,000 producers from all States that have farmed cervids. The study provides baseline industry statistics, a description of current production practices and challenges, producer-reported disease occurrences, and an overview of health management and biosecurity practices. A report from the study is now available in electronic and printed formats at: <http://www.aphis.usda.gov/nahms>.

Equines

APHIS protects the equine industry by helping State animal health officials monitor equine diseases that threaten animal and human health. In FY 2016, positive detections identified during routine surveillance for equine infectious anemia, and equine piroplasmiasis led to investigations and responses to those diseases in all cases identified. APHIS provided laboratory certification and annual proficiency testing for 452 equine infectious anemia laboratories and approval for 22 equine viral arteritis laboratories, 12 equine piroplasmiasis laboratories, and 13 contagious equine metritis laboratories. In addition, APHIS continued surveillance activities in all States for VSV. In FY 2015, APHIS confirmed a VSV outbreak in eight States across the mid-west. A total of 823 premises were reported as being affected by the disease. In FY 2016, all VSV-affected premises had been released from quarantine. During the outbreak, APHIS submitted 1,356 VSV samples to NVSL with an additional several hundred sent to activated National Animal Health Laboratory Network labs. APHIS also assisted in the reporting of equine cases of arboviral (i.e., virus transmitted via mosquitoes or fleas) diseases, including Eastern equine encephalitis, Western equine encephalitis and West Nile virus.

In December 2015, APHIS issued VS Guidance document, 15202.1, Approval of and Requirements for Laboratories to Conduct Tests for Contagious Equine Metritis. This document updated the procedures for approval and maintenance of approval of laboratories to conduct tests for contagious equine metritis biennially. This guidance document also expanded the inspection checklist requirements for those laboratories when performing the tests.

6. National Veterinary Stockpile

The National Veterinary Stockpile (NVS) is a component of APHIS' Surveillance Preparedness and Response Services Logistics Center and serves as the primary source of materials, supplies, and equipment for the response to, control of, and containment of significant domestic and foreign animal disease outbreaks. NVS has two primary objectives. One, within 24 hours of approval, deploy countermeasures against the most damaging animal diseases, including Highly Pathogenic Avian Influenza, Foot-and-Mouth Disease, Exotic Newcastle Disease, and Classical Swine Fever. Two, assist States, Tribes, and Territories with planning, training, and exercising the rapid request, receipt, processing, and distribution of NVS countermeasures during an event. In preparation for the response to an incident, the NVS works with States and tribes to develop their logistical plans, conduct logistical training, and conduct full-scale logistical exercises.

In FY 2016, the NVS procured the Rift Valley Fever vaccine, Classical Swine Fever vaccine, and additional poultry depopulation equipment. In addition, the USDA awarded multiple contracts in order to establish an emergency avian influenza vaccine stockpile. The NVS continuously evaluates on hand supplies and replaces expired inventory. Such was the case in FY 2016, with the 24 hour Push Packs. Push Packs contain personal protective equipment and decontamination supplies that precede other items needed to support an on-going emergency

response effort. Additional efforts were made to reconfigure these 24 hour Push Packs to better support responders at the outset of emergency response operations.

The NVS Program sought opportunities to lead, support, or coordinate activities with several States in FY 2016. The program focused its activities on State preparedness and conducting them with Hawaii, Idaho, Maryland, New Mexico, North Dakota, Ohio, Puerto Rico, Virginia, and Washington. The NVS personnel facilitated planning and training exercises to identify resource gaps and improve State National Veterinary Stockpile plans. As a result, more Federal, State, Tribe, and Territory officials are better prepared to respond logistically to animal disease outbreaks. For example, in FY 2016, the NVS partnered with the Commonwealth of Puerto Rico to conduct the Puerto Rico Hands-On NVS Logistics Warehouse Training. The purpose of the training was to support Puerto Rico in their efforts to complete their NVS plan, specifically as it relates to logistics warehouse activities; and to provide applicable hands-on assistance to help them enhance their logistics response capabilities. This marked the first NVS training event conducted in a U.S. territory outside of the contiguous United States. In addition to outreach activities, the NVS partnered with other Agency personnel to conduct training to improve communication, collaboration, and integration during a logistics emergency response. These activities enabled the Agency, as well as participating stakeholders and partners, to refine their preparedness procedures.

7. Swine Health

APHIS' Swine Health Program protects the health and improves the quality, productivity, and economic viability of the swine industry. The 2015 production value of the swine industry was approximately \$19 billion (based on preliminary estimates by the National Agricultural Statistics Service). In addition, the program facilitates trade in swine and pork products, and addresses swine health issues at the human-swine interface and between wildlife and domestic swine. APHIS activities include: 1) comprehensive and integrated swine surveillance, 2) emergency preparedness and response planning, 3) disease investigation and control activities, 4) zoonotic disease prevention and response, 5) swine health studies and special projects, 6) collaborations on emerging issues, and 7) outreach and communication with stakeholders. In addition, the Agency maintains regulatory and programmatic guidelines that direct activities at the Federal, State, and Tribal levels. Establishing and maintaining national standards support interstate and international commerce by ensuring the health of animals and products being moved or traded.

APHIS conducts surveillance activities to detect foreign, emerging, zoonotic, and domestic swine diseases that could substantially affect domestic producers and the national economy. The Agency collects swine samples from various surveillance streams for multiple diseases as part of comprehensive integrated surveillance. In FY 2016, APHIS collected samples for pseudorabies virus (PRV), swine brucellosis, and classical swine fever (CSF). In addition, the Agency continued testing swine samples for influenzas submitted to diagnostic laboratories. In FY 2016, APHIS performed 289 investigations in swine for foreign animal diseases (FAD), of which all were negative. Surveillance testing supports the swine industry by assuring trading partners and other stakeholders of the status of swine diseases in the United States and demonstrates that the United States is free from and can rapidly detect FADs. This comprehensive, integrated approach enabled APHIS to maintain surveillance with a risk-based approach that targeted high-risk samples and reduce surveillance costs.

Comprehensive integrated surveillance includes: 1) field work and epidemiological investigations, 2) designated surveillance streams to collect biologic samples, 3) a veterinary diagnostic laboratory infrastructure, 4) data management systems, and 5) methodologies for data analysis and reporting. APHIS collects samples and data from the following surveillance streams: veterinary diagnostic laboratories, slaughter plants, high-risk producer premises, livestock markets, and feral swine during population elimination projects. In FY 2016, APHIS tested 192,505 samples for PRV, 169,061 for swine brucellosis, 14,958 for IAV-S, and 11,158 for CSF. Of the samples tested for CSF, 8,463 were tested at the Agency's Foreign Animal Disease Diagnostic Laboratory on Plum Island, New York, and 2,695 were tested through the National Animal Health Laboratories Network. This testing continued to confirm that all commercial swine herds were free from swine brucellosis and PRV, and that CSF remains eradicated from the United States. IAV-S is common in the swine industry, and APHIS conducts tests to help the swine industry by reporting on antigenic drifts and determining the types and influenza that affect swine. Antigenic drift is a mechanism for determining the variation in viruses. APHIS expects complete FY 2016 data to be available in January 2017.

APHIS has the responsibility under the Swine Health Protection Act to license and inspect swine production facilities that feed cooked garbage to swine, and to conduct searches for unlicensed facilities that may feed raw garbage to swine. This practice could transmit infectious diseases such as African swine fever, foot-and-mouth disease (FMD), or CSF to swine. Data received as of October 1, 2016, for FY 2016 indicates that APHIS supported 4,399 inspections of licensed premises and 19,062 searches for non-licensed facilities. Through these searches, the Agency identified 78 non-licensed feeders. APHIS worked with States to either bring these facilities into compliance or force them to cease their illegal activities. Complete FY 2016 data will be available in January 2017, once States report it under the terms of their cooperative agreements.

Also in FY 2016, APHIS worked with industry regarding communication of Senecavirus A detections and the importance of reporting this virus, whose clinical signs mimic FADs such as FMD.

In FY 2016, no commercial herds were identified as having PRV or swine brucellosis. However, on occasion some non-commercial herds were identified following exposure to feral swine. Multiple cases of swine brucellosis were identified in transitional herds located in Northeastern States, and PRV and swine brucellosis were identified in other States as well. In all test-positive cases, APHIS and State partners investigate and quarantine infected herds, conduct routine testing to determine prevalence in the herd, and perform whole herd depopulation or removal of infected animals through a test-and-removal strategy to eliminate the disease from these herds. These response efforts protect commercial herds that may be exposed to infected backyard herds. Because APHIS has eliminated PRV and swine brucellosis from all U.S. commercial swine herds, the Agency continues to modernize the existing regulatory framework and surveillance activities to reflect a comprehensive, risk-based, and science-based monitoring/swine surveillance program as necessary to support trade efforts while reducing the burden on States and producers.

In FY 2016, public health officials reported 23 human variant influenza cases linked to swine exposure in multiple States. State public health and animal health officials, with support from APHIS and the Centers for Disease Control and Prevention, investigated all outbreaks. The Agency offers assistance to States and industry to identify the isolates from the swine associated with these outbreaks, if warranted. Joint animal health and public health investigations have supported the One Health concept and strengthen APHIS's ability to respond when both animal and human health might be compromised. Genetic sequences from these samples and other swine isolates are entered into GenBank (a publicly accessible genomic database). This database provides the scientific community with updated, comprehensive DNA sequence information to support diagnostic test and vaccine development.

Zoonotic diseases account for more than 60 percent of the infectious diseases that pose a public human health threat. Approximately 75 percent of the new diseases that have affected humans over the past 10 years have originated from animals or products of animal origin. Swine can harbor several zoonotic disease agents - influenza A virus, swine brucellosis, trichinellosis, and toxoplasmosis are a few examples. In FY 2016, APHIS worked with the swine industry to further evaluate the development of a negligible risk compartment for trichinella to expand international trade opportunities for the pork industry.

In FY 2016, APHIS supported multiple special projects to advance scientific knowledge, situational awareness, rapid disease detection, advance information technology to support comprehensive surveillance and to advance diagnostic tests that are critical to the Agency's ability to respond to swine and human health events. In addition, APHIS evaluated existing programs for effectiveness such as the sow-boar slaughter and market swine slaughter surveillance program for PRV and swine brucellosis. Further, APHIS and industry stakeholders collaborated to discuss and identify the use and effectiveness of oral fluids in swine FAD diagnostics.

8. Veterinary Biologics

APHIS' Center for Veterinary Biologics (CVB) regulates veterinary biological products under the Virus-Serum-Toxin Act to ensure that these products are pure, safe, potent, and effective. Organizations develop these products, which include vaccines, bacterins, antisera, diagnostic test kits, and analogous products, to diagnose, prevent, and treat animal diseases. The CVB develops regulations concerning the production and licensing of veterinary biologics, evaluates pre-licensing dossiers and issuance of licenses and permits, tests products submitted for licensure, conducts facility and product inspections, approves product certifications, conducts investigations of non-

compliance, and conducts post-marketing surveillance. This comprehensive regulatory approach is the most effective way to ensure that only quality, Federally licensed veterinary biological products are available to U.S. consumers, and plays an essential role in the protection of animal health and agriculture.

Licensed Products and Inspections

APHIS licenses and inspects facilities to ensure that all veterinary biological products produced and distributed in, or imported into, the United States are of the highest quality, and are not worthless, contaminated, dangerous, or harmful. Before the Agency began regulating veterinary biologics, farmers and animal health officials found products to be ineffective or contaminated with harmful diseases, including foreign animal diseases (FADs). While most of the time required in the licensing process is in the control of the potential licensee in developing manufacturing processes and conducting required studies, the CVB analyzes data and conducts confirmatory testing before issuing licenses. To reduce the burden on the regulated industry, CVB has expedited turnaround times and decreased the amount of information required under specific circumstances.

In FY 2016, APHIS received 111 applications for new and renewal licenses and issued 40 licenses/permits for the prevention, diagnosis, management, or cure of existing or new/emerging animal diseases. In addition, the Agency licensed 96 manufacturers for approximately 1,680 active veterinary biological product licenses/permits for the control of 223 animal diseases. These products are critical for protecting American agriculture, facilitating trade, and enhancing agricultural economic opportunities. For example, the United States experienced a large outbreak of highly pathogenic avian influenza in FY 2015. Since then, CVB has issued three conditional licenses for vaccines to help control the virus that could be used if APHIS determines their use is warranted.

In FY 2016, APHIS published two final rules in the *Federal Register* that announced the implementation of the Single Label Claim for Veterinary Biological Products, as well as Labeling and Packaging guidance to vaccine manufacturers. The Single Label Claim rule provides a simpler labeling format that better communicates product performance to the user. It also requires the publication of a standardized summary of the efficacy and safety data submitted to APHIS in support of product licensure. It applies to vaccines, bacterins, toxoids, and immunomodulators. However, it does not apply to antibody products, diagnostic test kits, autogenous or prescription products, or allergenic extracts. The Labeling and Packaging rule updates numerous requirements for label content and packaging requirements. This rule applies to all veterinary biologics products.

Also in FY 2016, APHIS has proposed a rule that will significantly shorten licensing times for live veterinary biological products that use recombinant DNA (genetic modification) technology. The rule will exclude products that use similar technology from the lengthy National Environmental Policy Act requirements. The comment period closed in September 2016; APHIS will review the comments received.

APHIS conducted a rollout of the National Centers for Animal Health (NCAH) Portal, an external web portal that allows real-time communication and data exchange between APHIS and biologics manufacturers, eliminating the time and additional costs of courier or mail delivery. The Agency made the first implementation of the NCAH Portal available to stakeholders in June 2016. By early August of 2016, the number of submissions via the NCAH Portal surpassed the documents received by mail. By the end of FY 2016, 43 percent of licensed firms were using the NCAH Portal. This resulted in 74 percent of marketing documents and 80 percent of biographical summaries received via the NCAH Portal. In September 2016, APHIS expanded the submission types that could be received via the NCAH Portal. The regulated industry has provided favorable feedback regarding the ease of use, design, and efficiency of the NCAH Portal.

APHIS inspects manufacturing facilities to ensure that they produce biologics according to regulations. In FY 2016, APHIS conducted 62 on-site inspections, 37 percent of which supported a new establishment/facility or product license for the industry. Licensed veterinary biologics are vital since they can be used to manufacture products to diagnose, prevent, or treat animal diseases, or improve existing biologics. Also in FY 2016, APHIS performed 83 regulatory actions, issued 51 violation notices, and conducted 22 investigations of possible regulation violations. In addition, the Agency received 314 adverse event reports regarding veterinary biological products. These events, which may or may not be caused by the product, occur after the product is used. APHIS gathers this information to

better learn how products are used in field conditions and applied to the evaluation process to assure that pure, safe, potent, and efficacious products are available.

The United States and foreign countries require import and export certificates to certify that products are prepared in accordance with the Virus-Serum-Toxin Act. In FY 2016, APHIS reviewed/processed 3,811 Certificates of Licensing and Inspection, and reviewed/processed 1,040 export certificates for veterinary biological products. The Agency processed 100 percent of all export certificates within 4 days or less, and processed 100 percent of all certificates of licensing and inspection within 28 days. Timely processing helps ensure that markets are accessible for manufacturers who export their product. APHIS helped to ensure there were no FAD events related to the importation of 138 million biologics doses.

Collaborative Efforts

In FY 2016, APHIS provided expertise and training at a joint Institute for International Cooperation in Animal Biologics education program. More than 147 delegates from 13 countries (including the United States) participated in this course to educate industry personnel and foreign officials on U.S. regulatory processes. The program promotes U.S. policy as a regulatory model for both established and developing markets, and it improves worldwide marketability of USDA-licensed biologics. APHIS also participated in harmonization efforts with major trading partners including Japan and the European Union through the International Cooperation on Harmonisation of Technical Requirements for Registration of Veterinary Medicinal Products.

Vaccination of companion animals with inactivated veterinary rabies vaccines is a first line of defense in protecting the public from the rabies virus. Each lot of rabies vaccine is tested for potency using the standard animal testing protocol. In FY 2016, APHIS continued working with industry to produce well-characterized reagents for an *in vitro* test (non-animal test). The Agency expects that this new test will yield more consistent results than the current test, reduce the number of mice that need to be tested, and limit the laboratory staff's exposure to the virus.

9. Veterinary Diagnostics

Laboratory and diagnostic services are essential components of the U.S. animal health infrastructure. The Veterinary Diagnostics line item provides partial funding for the National Veterinary Services Laboratories (NVSL), which consists of laboratories in Ames, Iowa, and at Plum Island, New York. The NVSL is recognized by the World Organisation for Animal Health and the Food and Agriculture Organization as an international reference laboratory for significant animal diseases such as highly pathogenic avian influenza (HPAI) and foot-and-mouth disease (FMD). The NVSL provides diagnostic test services ranging from a single laboratory test to comprehensive laboratory services covering many pathogens for suspected outbreaks of domestic and foreign animal diseases (FADs).

This line item also supports the National Animal Health Laboratory Network (NAHLN). The NAHLN is a coordinated animal disease surveillance and monitoring system that integrates and interconnects Federal and State laboratory resources and uses standardized diagnostic protocols and procedures to improve the security of the nation's livestock by providing disease diagnostics both daily and during outbreaks. It serves as a vital early warning system for foreign and emerging animal diseases. Currently, NAHLN consists of 58 State and university veterinary diagnostic laboratories and four Federal laboratories in 42 States. These laboratories work with the NVSL to test for several economically devastating and/or potentially zoonotic diseases such as FMD, influenza in avian and swine species, bovine spongiform encephalopathy, and swine enteric coronavirus diseases.

NVSL

Diagnostic testing and confirmation of surveillance samples improves the security of the nation's livestock. In addition, NVSL is often on the forefront of emerging and re-emerging diseases including porcine epidemic diarrhea, Seneca Valley A virus (senecavirus A), bluetongue, and equine encephalitic diseases such as West Nile virus. In FY 2016, the NVSL managed more than 402,500 diagnostic tests and 43,100 accessions (one or more diagnostic samples received from the same submitter on the same day). The laboratories produced and provided more than 106,300 reagents representing more than 600 different types of products used in veterinary diagnostic testing. Many

of these products are only available to stakeholders through APHIS. In support of diagnostic testing as well as the development of vaccines for use in the prevention of animal diseases, NVSL produced more than 540,000 milliliters of cell culture material, representing a broad spectrum of 31 cell culture lines. The Agency also validated new test methods and platforms, and provided training and assistance to domestic and international laboratories.

This program funds FAD investigations through NVSL's Foreign Animal Disease Diagnostic Laboratory (FADDL). In FY 2016, NVSL participated in 1,124 FAD investigations and supported international capacity building activities in Honduras, El Salvador, Cuba, Canada, Argentina, France, Mexico, Panama, Denmark, Uganda, Uruguay, and Tanzania. There was a significant increase in the number of investigations because of an outbreak of Seneca Valley virus A (SVA); 165 SVA positive accessions in swine. SVA is an infectious but non-fatal disease that primarily affects pigs - causing blisters on their snouts and feet, as well as lameness - but it also affects cattle. The biggest problem with this disease is that its symptoms mimic FMD. Therefore, APHIS tested many samples from the outbreak as FAD investigations, especially as new regions or locations were identified. The program received and tested 11,158 classical swine fever (CSF) surveillance samples in FY 2016. Of this total, 8,463 were tested at the FADDL and 2,695 were tested at NAHLN laboratories. This represents an increase of approximately 2,000 samples tested from FY 2015. The increase was due to a backlog of CSF cases from August and September 2015, that were delayed due to the high FAD investigation caseload.

APHIS conducts proficiency testing of Federal, State, and university sponsored laboratories to ensure that they use standardized, rapid diagnostic techniques and to maintain the credibility of U.S. diagnostic test results in the international marketplace. In FY 2016, APHIS provided 32 types of proficiency panels to international, Federal, State, and private laboratories. These are laboratories both within and outside the NAHLN network. APHIS made the necessary controls and reference strains available for approximately 200 diseases, including FADs, to help other laboratories develop and validate diagnostic tests. User fees cover the cost of some reagents and proficiency panels.

NAHLN

The Veterinary Diagnostics appropriation also provides support for limited infrastructure in NAHLN laboratories; NAHLN program staff and infrastructure costs; the NAHLN portal (a secure means of communication for NAHLN laboratories), and personnel to provide information management system support; and online quality management training the NAHLN labs use to maintain qualifications for participating in the network. The NVSL trains NAHLN laboratory personnel to ensure proficiency and standardization for performing diagnostic tests. In FY 2016, the network laboratories performed approximately 688,000 diagnostic tests to support APHIS' animal health surveillance and response programs. The NAHLN program staff provides annual quality management training to NAHLN laboratories. The NAHLN program staff also conduct exercises and drills to prepare participating laboratories for animal disease outbreak scenarios; this enables the laboratories to remain proficient in animal disease testing. It also enables them to generate a rapid, local preliminary diagnostic result while confirmatory testing is performed at the NVSL. In FY 2016, NAHLN laboratories continued to support response to avian influenza (AI) outbreaks, including an HPAI outbreak in turkeys in Indiana, a low pathogenic AI (LPAI) outbreak in turkeys in Missouri, and an LPAI outbreak in live bird markets in New York and New Jersey. Eight NAHLN laboratories also supported wild bird avian influenza surveillance.

APHIS shares NAHLN laboratory results with State and Federal animal health officials, who then communicate with local veterinarians. The Agency has also established various communication mechanisms that enable the NAHLN coordination office to efficiently exchange information between and among member laboratories, and State and Federal officials. This includes the NAHLN Coordinating Council, which is comprised of NAHLN laboratory directors, State animal health officials, and officials from APHIS and the National Institutes of Food and Agriculture. In FY 2016, the NAHLN implemented a new structure in accordance with planning and recommendations from the NAHLN Coordinating Council. This restructure represents a significant milestone for NAHLN and has been the result of dedication and input from many groups over several years. The new structure preserves its current oversight, leadership, administrative structure, and roles and responsibilities as outlined in the approved NAHLN charter. Specifically, the USDA will provide Federal oversight, with APHIS being responsible for operational aspects. An Executive Committee composed of USDA staff will continue to review and implement the NAHLN strategic and operational plans. The Coordinating Council, composed of USDA staff, NAHLN laboratory directors, and State animal health officials, will continue to provide a forum to discuss the NAHLN's

current and future needs. To maintain a NAHLN laboratory designation, qualifying laboratories must undergo annual reviews to demonstrate adherence to established NAHLN policies and procedures, and adjust levels accordingly. In addition, the new structure provides for a mechanism to conduct a full network assessment every three years. In FY 2016, the NAHLN received approximately \$5 million under the Veterinary Diagnostics appropriation. Based on input from the NAHLN Coordinating Council and other stakeholders, nearly all of the additional funds were allocated directly to the NAHLN laboratories through their individual infrastructure support agreements. Laboratories were directed to use the one-year increased funding to address specific NAHLN priority areas such as: support for their quality management systems, support or enhancement of their capability to electronically message test results; or technical support to increase foreign animal disease and/or emerging disease capabilities and capacity through advanced training, equipment purchase or undiagnosed case work-up.

National Bio and Agro-Defense Facility (NBAF)

Also in FY 2016, APHIS continued to work with the Department of Homeland Security and USDA's Agricultural Research Service to plan for a transition from the aging Plum Island Animal Disease Center at Orient Point, New York, to the state-of-the-art NBAF currently being built in Manhattan, Kansas. The Plum Island Animal Disease Center, home to the FADDL, is the only U.S. laboratory that is permitted to work with FMD. FADDL also is the custodian of the North American FMD Vaccine Bank. The NBAF will be a key national asset to protect the U.S. animal agriculture industry. USDA and DHS have developed five working groups to address transition planning: 1) Facility Advisory; 2) Operational Standup; 3) Partnership Development; 4) Research & Training; and 5) Budget Formulation for equipment, personnel, and other transitions costs. Planning efforts will continue until the facility is online and fully operational.

10. Zoonotic Disease Management

The Zoonotic Disease Management Program enhances State, national, and international collaborative efforts to promote healthy animals, people, and ecosystems. This integrated approach is known as "One Health." Zoonotic diseases are those that pass between animals and people; the majority of human pathogens are zoonotic. Most newly emerging pathogens are of animal origin and the majority of these originate in wildlife. These statistics support the value of a One Health approach. APHIS provides national leadership in addressing the animal health component of One Health by contributing animal health expertise, infrastructure, and networks in combination with those of human and environmental health to provide holistic solutions to complex One Health problems. The Agency collaboratively develops strategies, policies, and training to help animal health stakeholders effectively engage with public health counterparts, provide guidance, facilitate information exchange, and enhance responses to One Health issues. By enhancing APHIS' efforts to address the animal health component of One Health, the program protects public health and directly benefits animal health and marketability.

Zoonotic Disease Engagement, Investigation, and Response

APHIS works with numerous international, national, State, and industry partners to address zoonotic diseases, such as *Salmonella*. *Salmonella* bacteria cause an estimated 1.2 million human illnesses, 19,000 hospitalizations, and 370 deaths annually in the United States. USDA's Economic Research Service estimates that *Salmonella* costs the U.S. economy approximately \$2.5 billion annually. A 2011 study conducted by the Centers for Disease Control and Prevention (CDC) estimated 11 percent of human *Salmonella* infections are attributed to animal exposure annually.

In FY 2016, APHIS collaborated with public health, veterinary, and agriculture officials in 45 States to investigate eight *Salmonella* outbreaks associated with live poultry; a total of 611 people were infected. To prevent these outbreaks, a multi-partner approach was required to identify and implement targeted interventions and educational efforts at all levels of the complex poultry mail-order system. APHIS worked with CDC and State Departments of Public and Animal Health to investigate outbreaks of human *Salmonella* infections linked to contact with live poultry, especially chicks and ducklings. APHIS provided epidemiologic and laboratory support to CDC outbreak investigations, and reviewed educational and outreach materials directed to the consumer, backyard flock owner, feed stores, and State/local hatcheries. APHIS continues to assist this segment of the industry through a voluntary poultry monitoring program and publication of best management practices.

Most influenza A viruses of swine do not cause disease in humans. Influenza viruses that normally circulate in pigs are called “variant” viruses when they are found in people, such as H1N1 and H3N2. Because of its complex ecology and risk of interspecies transmission, influenza requires a One Health approach. In FY 2016, CDC confirmed 17 H3N2 cases - 12 cases in Michigan and 5 in Ohio. APHIS continues to work with CDC, State public and animal health officials, and academia to investigate these detections. Diagnostic sequence findings are rapidly shared between Agency and State laboratories.

Antimicrobial Resistance

Antimicrobial resistance (AMR) requires a One Health approach involving multidisciplinary coordination from both the public health and animal health sectors. APHIS is working with State and Federal partners, veterinarians, and producers to promote the judicious use of antimicrobials, which will support a strong, healthy, and thriving U.S. animal-agriculture system as well as public health.

APHIS continued working with other USDA agencies to develop practical mitigation strategies to limit or reduce AMR prevalence. This strategy covers a broad array of efforts to address AMR in human and animal health, including AMR surveillance at the farm level, collection of antimicrobial drug use data, and efforts to promote stewardship of antimicrobial drugs by animal owners and veterinarians. In FY 2016, APHIS continued to consult with the Food and Drug Administration (FDA) to develop policies regarding the use of antimicrobial drugs in food-producing animals. The Agency also worked with FDA to assess the impacts of policy actions related to antimicrobial drug use in livestock and poultry. APHIS also collaborated with other agencies on several initiatives. These include providing updates on activities to partner agencies to measure progress in completing activities included in the Public Health Action Plan to Combat AMR, and participating in efforts to revise the reporting mechanisms for the National Antimicrobial Resistance Monitoring System to facilitate the timely reporting of AMR data to a broad community of stakeholders. In addition, the National Animal Health Laboratory Network, in conjunction with FDA and other organizations developed a pilot plan for collection of antimicrobial susceptibility data from veterinary diagnostic laboratories.

APHIS participated in several international AMR activities as well. For example, the Agency provided comments on chapters of the World Organisation for Animal Health (OIE) Terrestrial Animal Health Code related to AMR. In addition, APHIS and FDA provided input to the OIE ad hoc group developing a global database on antimicrobial drug use.

Pandemic and Animal Disease Preparedness

APHIS participates in and provides animal health subject matter expertise to the North American Plan for Animal and Pandemic Influenza, strengthening trilateral preparedness and response capabilities for human and animal health in Mexico, Canada, and the United States. Collaborations this fiscal year have included cross sector meetings and conference calls to discuss methods to improve data sharing and emergency and risk communications.

The One Health Systems Mapping and Analysis Resource Toolkit (OH-SMART) is a valuable tool that can be used to strengthen processes for communication, joint investigation and response, and build partnerships that maximize resource and effort, provide mutual benefit, and deepen understanding and respect across sectors and disciplines. The OH-SMART tool allowed discussion around creating a risk-based approach to Influenza Like Illness (ILI) monitoring and the reasons for delays in exchange of information. Participants prioritized ideas and specific actions within three main themes: protocols and guidance documents, monitoring implementation, and outreach to response partners. The tool was utilized in both the Highly Pathogenic Avian Influenza (HPAI) After Action Review in Minnesota and on the ILI Monitoring After Action Review. The ILI After Action Review included animal health and public health partners from the Federal and State level. States most affected by the HPAI outbreak that had implemented ILI Monitoring—Iowa, Minnesota, Wisconsin and Indiana—participated in the ILI After Action Review. There were three main objectives of the ILI After Action Review Workshop. One objective was to identify best practices for successful monitoring of people exposed to avian influenza viruses during animal outbreak responses in the United States. Another objective was to determine gaps in current monitoring policies, procedures, and practices for people exposed to avian influenza viruses during animal outbreak responses in the United States.

In addition, the group sought to revise current protocols to reflect the lessons learned and outcomes from the workshop review.

A report from the ILI After Action Review workshop is currently being finalized. APHIS plans to re-convene the workshop participants to discuss the suggested action items in FY 2017, and prioritize the actions. We will also discuss how to best communicate the suggested actions with the larger network of partners, including the National Assembly of State Animal Health Officials and the National Association of State Public Health Veterinarians.

Global Health Security

Coordination and collaboration across all levels of the human, livestock and wildlife health sectors are vital to meet the Global Health Security Agenda (GHSA) vision for “a world safe and secure from global health threats posed by infectious diseases.” APHIS works domestically and internationally to protect the United States from global health threats posed by infectious diseases.

APHIS continues to coordinate USDA efforts related to antimicrobial resistance, zoonotic disease, biosafety and biosecurity, national laboratory systems, real time surveillance, and workforce development. In FY 2016, the Joint External Evaluation (JEE) assessment was conducted for the United States. The JEE tool assesses the progress of a country in meeting GHSA goals and the capacity of that country to address public and animal health threats, whether they are naturally occurring, deliberate, or accidental. The assessment combines the GHSA objectives with the all-hazards approach to public health preparedness and response required for implementing the international health regulations. APHIS collaborated with other Federal agencies to compile the data necessary for an external review team to look at the U.S. Government’s adherence to the principals of the GHSA domestically. The review team identified a few areas for improvement; many of them are of a One Health or multiagency collaborative nature. APHIS continues to monitor the recommendations that were obtained from that process and will be organizing USDA’s response to the recommendations. The full report is available at: <https://ghsagenda.org/assessments.html>.

Selected Examples of Recent Progress - Plant Health:

1. Agricultural Quarantine Inspection

Through the Agricultural Quarantine Inspection (AQI) program, APHIS and the Department of Homeland Security's (DHS) Bureau of Customs and Border Protection (CBP) safeguard U.S. agricultural and natural resources from the introduction of invasive pests and diseases. To exclude foreign pests and diseases, APHIS assesses the risks associated with international trade and specific imported agricultural products and develops import regulations to protect agricultural health. In addition, the Agency conducts off-shore pest risk reduction activities including pre-departure inspections of passenger baggage and cargo destined for the continental United States from Hawaii and Puerto Rico and foreign commodity pre-clearance programs; trains agricultural inspectors and detector dog teams to work at U.S. ports of entry; inspects and takes action as necessary on imported plant propagative materials; monitors the fumigation of arriving containers and cargo where necessary to mitigate pest risks; conducts trade compliance activities to detect and prevent smuggling; and provides the scientific support necessary to carry out these activities and those carried out by CBP.

APHIS receives appropriated funding for pre-departure inspections of passengers and cargo traveling from Hawaii and Puerto Rico to the continental United States to prevent the introduction of non-native agricultural pests and diseases into the continental United States while facilitating the movement of travelers and agricultural goods. Because of the high volume of travelers from these islands to the continental United States, along with the risks associated with numerous fruits, vegetables, and animal products associated with these areas, APHIS inspects all passenger baggage leaving these islands. When inspectors identify an item that poses a specific risk, they take immediate action to prevent the entry of materials that could harbor the pest or disease in question. This action prevents damage to the country’s agricultural industry and negates the need for costly control and eradication programs. APHIS also partners with industry groups and State and Commonwealth counterparts to facilitate the safe movement of cargo. In Hawaii, the State Department of Agriculture conducts nursery inspections and certifies nursery stock for shipment to the continental United States.

In addition to the appropriated funding, APHIS collects AQI User Fees under the authority of The Food, Agriculture, Conservation, and Trade Act of 1990 to recover costs for services provided by APHIS and CBP associated with preclearance inspections of passengers and the port-of-entry arrival of commercial vessels, trucks, loaded railroad cars, aircraft, and passengers entering the United States from a foreign destination. APHIS inspectors oversee the preclearance of commodities by inspection or treatment; trust fund agreements with the exporting country and exporter or exporter groups fund this activity. Trust funds cover all costs incurred by APHIS inspectors when they are engaged in preclearance activities. In most cases, exporters of the precleared commodity cover the costs of this APHIS service.

Cooperative Program Management

APHIS works with CBP to protect America's agricultural resources and food supply through inspecting international passenger baggage, cargo, and conveyances. APHIS and CBP share management of the program through several working groups, including the Joint Agency Task Force (JATF) and the Joint Agency Quality Assurance Program. Through the JATF, both agencies coordinate their efforts in priority areas of enhancing security, clear and balanced decision-making, streamlining effective outreach and communication, and improving organizational structure and leadership to support the shared work in the agriculture safeguarding mission. In calendar year 2016, APHIS and CBP conducted quality assurance port reviews at nine air and maritime ports in the United States and at three pre-clearance ports (in Bermuda, Freeport and Nassau). These reviews ensure that agricultural regulations and inspection policies are implemented consistently across the country. They also help identify potential issues or training needs at specific locations. APHIS also trained 80 new CBP agriculture specialists and also conducted basic agricultural threat training for 1,375 first-line CBP officers and provided agriculture fundamentals training for 72 CBP import specialists. Additionally, APHIS trained 28 canine teams, 23 Agriculture Field Trainers, and 19 Agriculture Canine Team Supervisors for CBP.

Pre-Clearance Inspections

APHIS conducts commodity pre-clearance programs in 26 countries with 52 commodities to minimize pest and disease risks outside the United States and allow perishable products to reach markets promptly. APHIS pre-cleared approximately 61 million boxes of fruit and other products in FY 2016.

APHIS also works with the U.S. Department of Defense (DOD) and DHS to inspect military passenger baggage and equipment before it returns from overseas. This work is necessary to prevent the entry into the United States of foreign animal and plant pests and diseases in returning military cargo, equipment, and vehicles. In FY 2016, APHIS recertified 91 preclearance programs for DOD's European Command (which includes Europe and Africa). Designated APHIS personnel delivered agricultural preclearance training and certification to military personnel, Stateside and in locations in the Middle East, Central Asia, Europe, South America, and Africa. In FY 2016, APHIS trained more than 2,300 personnel in the United States alone.

Offshore Risk Reduction

To ensure that treatments of commodities being shipped to the United States meet APHIS' standards and regulatory requirements designed to protect U.S. plant health, APHIS certifies certain overseas treatment or production facilities. In FY 2016, APHIS certified 3 niger seed facilities and 14 *Pelargonium* facilities. Niger seed, primarily used for bird seed, is produced in Asia and Africa. While niger seed is not a noxious weed, shipments of the seed may be contaminated with noxious weed seeds and imported shipments must be treated to prevent the noxious weed seeds from germinating. The genus *Pelargonium* includes popular geranium plants, which can carry serious plant diseases. Additionally, APHIS is cooperating with Australia on a pilot program for irradiated mangoes. In FY 2016, the first year of the 3-year pilot program, the Australian mango pilot program shipped 15,661 irradiated mangos through this program that allows small shipments of irradiated mangos from approved facilities in Australia. During the pilot, the mangoes must be inspected at export and at the U.S. port of entry. These efforts provide assurances that these desirable imported commodities will not harm U.S. plant health.

APHIS and partner countries in the Caribbean region also conduct the Greater Caribbean Safeguarding Initiative to protect the region, including Florida and Puerto Rico, from the introduction and establishment of high-risk plant pests. In FY 2016, APHIS funded 31 projects with 169 participants that support plant health safeguarding activities in the Greater Caribbean Region such as technical working group meetings, regional pest prioritization processes, and pest surveys. Additionally, the number of countries participating in the Don't Pack a Pest traveler outreach program increased from four to six. This program promotes increased awareness for passengers to declare agricultural goods when traveling.

Pre-Departure Inspections

APHIS inspected the baggage of approximately 11.9 million passengers before they left Hawaii and Puerto Rico and intercepted 290,238 prohibited items and 5,728 quarantine-significant pests in FY 2016. APHIS evaluates the effectiveness of its pre-departure program by measuring the percentage of passengers destined for the continental United States from Hawaii and Puerto Rico that comply with agriculture quarantine regulations. In FY 2016, more than 97 percent of passengers were in compliance (calculated by determining how many passengers are carrying prohibited items through random sampling and comparing it to the actual number of prohibited items intercepted through inspections). To facilitate interstate trade between Hawaii and Puerto Rico and the continental United States, APHIS conducts commodity certification and inspection programs. In FY 2016, the program conducted 65,121 inspections of regulated agricultural commodities shipped from Hawaii and approximately 15,209 inspections of regulated agricultural commodities shipped from Puerto Rico. In addition, the program oversaw or conducted 4,593 cargo treatments in Hawaii and 3,311 cargo treatments in Puerto Rico. APHIS continues to conduct methods development activities that expand the treatments available to allow additional fruits and vegetables to be shipped from these islands to the continental United States.

Port-of-Entry Inspections and Pest Interceptions

In FY 2016, nearly 178 million passengers and pedestrians entered the United States by air, bus, ship, train, or on foot. CBP agriculture specialists inspected the baggage of 23.2 million of these travelers for agricultural risks through manual inspection, x-ray technology, or detector dogs. Also in FY 2016, the program conducted secondary agricultural inspections of 518,938 of the 96 million passenger vehicles entering the United States from Canada and Mexico. Inspectors also cleared 31,435 ships and 1.2 million cargo, mail, and express carrier shipments, intercepting 102,798 pests. Of the travelers inspected, approximately 96.6 percent of international air passengers, 97.1 percent of southern border vehicles, and 92.6 percent of northern border vehicles were found to be in compliance with agriculture quarantine regulations.

Plant Inspection Stations

Importations of nursery stock, and other propagative plant materials, can serve as significant pathways for invasive pests and diseases. To reduce the risks associated with such imports, APHIS requires that certain imported plant materials enter the United States through plant inspection stations, which are located at ports-of-entry throughout the country at major international airports and seaports, and at major crossings along the U.S.-Mexican border. Specialists at these stations inspect shipments to ensure that imported plants and seeds do not contain pests and diseases of regulatory significance. In addition, they enforce the regulations that apply to the import and export of plant species protected by the Endangered Species Act and the Convention on International Trade in Endangered Species of Wild Fauna and Flora. In FY 2016, inspectors cleared more than 16,683 imported shipments containing over 1.54 billion plant units (cuttings, whole plants, or other propagative materials) and approximately over 1.27 million kilograms of seeds. Through these inspections, APHIS employees intercepted 690 quarantine significant pests at the plant inspection stations. In addition, the stations treated 653 treatments remediating pests on more than 4 million plant units and 2,931 kilograms of seed. During FY 2016, all plant inspection stations utilized risk-based sampling protocols to sample product for inspection. APHIS piloted the new process in FY 2014 and implemented it at all plant inspection stations in FY 2015. This protocol is designed to maximize the effectiveness of inspections by incorporating statistically sound sampling for shipments based on the type and origin of the plant material. As the inspection results are analyzed, APHIS will be able to begin to identify the risk level of some commodity/country combinations.

Plant Germplasm Quarantine

APHIS' Plant Germplasm Quarantine Program (PGQP) provides quarantine services for importing plant cultivars and germplasm safely to prevent foreign pathogens from entering our agricultural production areas and environment. In FY 2016, PGQP released from quarantine 10 bamboo clones, 86 grass clones, 7 kiwis, 24 pome fruits, 52 potato clones, 33 potato true seed lots, 75 rice seed lots, 28 stone fruit clones, 229 stone fruit seedlings, 15 sugarcane clones, 9 sweet potatoes, and 22 woody ornamentals. Thirteen of the 52 potato clones, 14 of the 28 stone fruit clones, 6 of the 9 sweet potatoes, and 15 of the 24 pome clones released this year resulted from therapy performed on the infected imported plants. New crops imported in FY 2016 included oak seedlings, hibiscus cuttings, and *Tilia* plants. Notable shipments included 26 Japanese Sakura cherry seedlings to Disney, 17 Japanese weeping cherry seedlings to New York City Parks, 75 rice seed lots to Mississippi, 179 almond seedlings to the ARS Prunus Repository in California, and 70 kiwi plants to nurseries in California and Oregon. These high-risk crops are prohibited entry into the United States in commercial quantities, but importers can bring in small quantities through an APHIS-approved plant quarantine program, like the one at PGQP. PGQP scientists are evaluating a new pathogen detection procedure, known as next generation sequencing, to improve the speed and accuracy of pathogen detection in our programs. They are collaborating with scientists in ARS and the other quarantine programs to implement this new technology.

Pest Identification

When pests are detected in cargo, they must be identified to determine whether they are considered quarantine significant under APHIS regulations (i.e., they are exotic and could pose a significant threat to U.S. plant health, therefore they are regulated by APHIS as a result) and whether the cargo can be allowed entry (and what, if any, mitigation measures would be required). In FY 2016, APHIS National Identification Services processed and identified 162,224 pests, with 73,687 being quarantine significant pests. To reduce the pests that CBP must submit to APHIS for identification, APHIS and CBP established the Cargo Release Authority (CRA) program in 2006. Through the CRA program, APHIS provides training and job aids that allow CBP agriculture specialists to recognize frequently intercepted, easily identifiable, low-risk organisms and release the cargo if the organism is not a quarantine significant pest. CRA is granted after the agriculture inspector has successfully identified a particular pest a certain number of times and submitted documentation to APHIS. Since the inception of the CRA program, APHIS has provided CRA training to 1,571 CBP Agriculture Inspectors. Of these, approximately 1,122 Agriculture Inspectors have earned CRA and have applied it toward 12,939 CRA-eligible organisms.

Risk Analysis

APHIS' Plant Epidemiology and Risk Analysis Laboratory (PERAL) develops pest risk analyses and epidemiological approaches to pest exclusion. In FY 2016, PERAL personnel completed 250 risk analyses associated with imports, exports, invasive pest threats, and programmatic requirements. This total includes 40 analyses to open, expand, or maintain export markets for U.S. producers. The laboratory's work also included evaluations of 162 new or exotic pests for potential risk to U.S. agriculture, 23 risk analyses, and 9 pest lists for import requests from foreign countries.

Smuggling Interdiction and Trade Compliance (SITC)

SITC officials analyze and identify potential smuggling pathways, conduct product traces, and coordinate with investigative organizations to increase compliance with APHIS' regulatory requirements. SITC also notifies CBP about potential agricultural risks at the ports of entry. In FY 2016, APHIS seized 755 prohibited agricultural items in retail commercial locations, 635 items from internet sales and 382 from courier surveys. Those seizures totaled 94,176 pounds of prohibited and/or restricted plants and plant products and meat and meat products valued at \$450,914. The Agency conducted five recalls due to finds of high-risk material, such as unprocessed whole kernel corn, which posed a risk for exotic plant diseases, untreated bamboo garden stakes, which were infested with exotic plant pests, and untreated whole lentils, which posed a risk for exotic seed weevils. Total seizures as a result of recalls weighed 34,168 pounds and were worth an estimated value of \$157,651. In conjunction with CBP, APHIS conducted 30 port-of-entry Special Operations, which involve focused inspection efforts on particular pathways, type of commodities, or point of origin. In FY 2016, examples include an operation focused on prohibited spice

seeds from countries in the Middle East and the United Kingdom and an operation focused around holidays on prohibited meat products from Europe.

Phytosanitary Export Certification

APHIS facilitates the export of agricultural shipments by tracking plant health import requirements for approximately 200 countries, and provides certifications to U.S. exporters to help ensure that U.S. products meet other countries' requirements. More than 2,300 Authorized Certification Officials at the Federal, State, and county levels can access countries' certification requirements on-line and conduct inspections to issue phytosanitary certificates. These certificates facilitate the entry of commodities into foreign markets. The program employs a web-based Phytosanitary Export Database. This database, which is free to exporters, enables them to research requirements and better prepare for shipping. In addition, this program uses a Phytosanitary Certificate Issuance and Tracking (PCIT) database, which allows exporters to apply for certificates, schedule inspections, and pay certification fees. PCIT also collects State and county cooperator fees in addition to the USDA fees for phytosanitary certificates. In FY 2016, APHIS collected \$18.5 million for certificates the Agency issues and remitted more than \$18 million to State and County cooperators for certificates they issued. Currently, 33 States and 31 counties use this feature. PCIT also enables APHIS to capture export application information, document inspection and certification information, print an original phytosanitary certificate on secure paper, and generate export reports. In order to increase consistency across the country, APHIS added two new modules to PCIT. These modules allow for random assignment of phytosanitary certificates for review and categorization of the results to identify areas to monitor quality control. The other module is designed to improve tracking and follow-up on notices of non-compliance from foreign countries related to U.S. exports and allows APHIS to identify areas for improvement in issuing export certificates. Additionally, the Agency is continuing its effort with international counterparts to begin exchanging phytosanitary certificates electronically. The United States began accepting electronic phytosanitary certificates from Australia and the Netherlands in FY 2014. The program is developing this capability with Mexico and Peru and is close to having working exchange mechanisms with those countries. In FY 2016, APHIS, State, and county officials issued more than 650,000 Federal export certificates for agricultural shipments.

2. Cotton Pests

The Cotton Pests program works with growers, the cotton industry, States, and Mexico to eradicate the boll weevil (BW) and pink bollworm (PBW) from all cotton-producing areas of the United States and northern Mexico. Collectively, the BW and PBW are the most destructive pests of cotton worldwide. The Cotton Pests program also maintains preparedness capabilities to address other cotton pests that could enter the United States. APHIS provides national coordination, operational oversight, and technology development (such as sterile moth production for PBW eradication), while program partners have provided more than two-thirds of the funding for the BW eradication effort and most of the operational funds for PBW eradication. APHIS also provides technical advice on trapping and treatment protocols to its partners in Mexico for their eradication efforts.

The BW has cost cotton growers more than \$13 billion since it entered the United States in the late 19th century. APHIS began an area-wide BW eradication program in 1983. The BW eradication effort involves mapping cotton fields, using pheromone traps to evaluate weevil presence, and applying pesticides. PBW eradication uses PBW-resistant cotton, mating disruption techniques, insecticide treatments, and sterile moth releases. Once these pests are eradicated, the programs will conduct long-term surveillance to guard against re-infestation and take action if re-infestation occurs. After the BW and PBW are eradicated from an area, cotton growers rely far less on insecticides, thus reducing their production costs. Over the course of the eradication effort, the program has increased these growers' global competitiveness, primarily through reduced production costs and increasing yields. In the 2016 season, the industry produced approximately 9.8 million bales worth approximately \$3.8 billion.

To date, APHIS and cooperators have eradicated BW from 99.5 percent of the 16 million acres of U.S. cotton. The Lower Rio Grande Valley (LRGV) is the last zone within the United States where active eradication efforts continue. The LRGV is impacted by the neighboring Mexican cotton producing State of Tamaulipas and the area's security issues. Inclement tropical weather also hindered progress in the LRGV region by providing a yearlong growing season favoring volunteer cotton plants, which are cotton plants growing outside the intended planted and cultivated field. While there was decreased cotton acreage planted in the LRGV in FY 2015, detections of BW

increased threefold due to frequent rains, flooding, and windy conditions. The bad conditions also affected the Tamaulipas' program significantly. In FY 2016, APHIS looked to others for additional help in overcoming these challenges. The Agency entered into a cooperative agreement with the North American Plant Protection Organization to assist the Tamaulipas BW Eradication Program by funding ultra-low volume (ULV) Malathion and aerial treatments expenses. The Tamaulipas program has been hindered by a lack of funds to pay for these critical resources in recent years. Additionally, the Texas Boll Weevil Eradication Foundation (TX-BWEEF) provided technical assistance using their smart device application for trapping and treatment activities. Tamaulipas employees running this application on their smart phones will allow TX-BWEEF managers to monitor trap deployment, trap servicing and treatment activities in real time. This BW smart phone application has improved data flow and the ability to assist with TX-BWEEF management and treatment decisions. These actions have improved the timeliness of treatments and help mitigate the late season migration of BWs from Tamaulipas to the LRGV and beyond. The FY 2015 captures of BWs in the Batesville, Texas area, increased to more than 6,000 total BW captures in FY 2016. The TX-BWEEF program initiated intense trapping and treatment activities to help conquer this threat. As a result, a year round trapping concept will be instituted in Tamaulipas. This concept will assist with understanding BW population dynamics and conducting an eradication program in a sub-tropical environment.

Due to the number of captures in FY 2016, the program put a hold on its goal to fully eradicate BW from all cotton-producing areas of the United States and adjacent areas of northern Mexico. The program will continue monitoring for BW to ensure the program quickly detects any reintroductions while continuing to fully eradicate the pest in the upcoming years.

Another challenge the BW program faces is with the ability to continue to register and use Malathion for program operations. The U.S. Environmental Protection Agency (EPA) has undertaken review of all Organophosphate pesticides, which will include ULV Malathion. Malathion is particularly effective against BW and, when used properly, poses low environmental risk. APHIS has managed concerns through environmental monitoring and careful adherence to the product's label requirements. APHIS keeps EPA current on the status of the BW program and our need for the continued availability of Malathion. APHIS will continue working with EPA on this issue.

In the United States, although the volume of acreage planted with cotton varies from year to year, the PBW commonly causes cotton losses of 20 percent or more in affected areas. The PBW control program began in 1967, and APHIS, along with cooperative program partners, have eradicated the PBW from Southern California, Arizona, large areas of New Mexico, and the El Paso/Trans Pecos region of Texas. The southwestern growing areas within the United States are completing their fourth and final year of "confirmation of eradication" phase. To date, the program maintains its fully eradicated status and additional cotton growing areas of Texas outside the formal PBW eradication program have been surveyed in FY 2015 and FY 2016, without detecting a single native PBW moth. APHIS anticipates that PBW eradication can be declared within all commercial cotton growing areas within the United States by the end of FY 2017.

By controlling and eventually eradicating these two devastating cotton pests, APHIS protects continued export opportunities for U.S. cotton growers and significantly lowers production costs. Through these activities, the program protects \$66 worth of cotton production per appropriated dollar spent.

In FY 2017, APHIS will continue to reduce the BW population in the LRGV and partner with the U.S. cotton industry on BW surveillance efforts for all U.S. cotton production. APHIS will also partner with the Mexican BW eradication program in Tamaulipas and La Laguna region of Coahuila and Durango, to provide technical assistance and funding for their parallel program to the LRGV program. The Agency also plans to continue working with the U.S. cotton industry on the PBW eradication efforts in the Southwest part of the United States, currently in the final year of a four-year confirmation of eradication plan.

3. Field Crop & Rangeland Ecosystems Pests

The Field Crop and Rangeland Ecosystem Pests (FCREP) program protects U.S. agricultural crops and rangelands from the establishment or spread of invasive or economically significant pests, facilitates safe international trade and domestic commerce, preserves economic opportunities for U.S. farmers, and fosters healthy ecosystems in

rangelands and natural lands. To accomplish these goals, APHIS provides national coordination, threat assessment, and strategies to prevent pests and diseases such as Karnal bunt and witchweed from spreading and impacting export markets for U.S. farmers. The program also works to prevent the imported fire ant from spreading through interstate commerce and helps Western rangeland managers respond to cyclical outbreaks of grasshoppers and Mormon crickets. These programs help protect resources that small, rural communities depend on for income.

Grasshoppers and Mormon crickets (GMC)

Through the FCREP program, APHIS cooperates with Federal, State, Tribal, and local agencies, organizations, and institutions to conduct survey and suppression activities in western States to reduce damage that GMC outbreaks cause, protecting resources valued at more than \$8.7 billion (according to a 2012 Economic Analysis prepared by University of Wyoming through a cooperative agreement with APHIS). Uncontrolled GMC infestations could cause significant economic losses for U.S. livestock producers by reducing animal food supply in rangeland and therefore forcing producers to buy supplemental feed or sell their livestock at reduced prices. Besides feeding on grass, they can also devastate cultivated crops such as alfalfa, wheat, barley, and corn. Infestations often cover vast acreage, and landowners may need Federal support to control them. The program helps land managers by providing population information, helping to predict where grasshopper populations could develop into outbreaks, and providing technical assistance about options for dealing with problem-level populations. By providing ongoing information, and advice to land managers and conducting control treatments where necessary and possible, this program helps protect 661 million acres of rangeland across the western United States.

In FY 2016, APHIS conducted surveys in 17 States for GMC, collecting data at nearly 26,000 survey points. Based on the results of the surveys and needs of land managers, the program treated 218,329 acres of rangeland, which protected rangeland forage and wildlife habitat on approximately 370,419 acres. While grasshopper populations remained well below outbreak levels in many areas, areas of Montana continued to experience very high populations. APHIS treated areas on tribal lands belonging to the Northern Cheyenne, Crow, and Flathead Tribes and 27 private ranches. The program also treated 3,400 acres in New Mexico. Smaller ground treatment occurred in Arizona, Washington, Utah and Idaho. Before conducting any treatments, APHIS confirms the species of the grasshopper, as some do not cause damage to rangeland and others can provide ecological benefits by eating weeds (leaving grasses for grazing livestock). Over the past several years, the program has been preparing a programmatic environmental assessment that covers all 17 States that could experience GMC outbreaks, updating the last programmatic assessment that was completed in 1987. This document is expected to facilitate treatments and help APHIS ensure that it is taking appropriate action to prevent grasshopper treatment impacts on wildlife habitat and wetlands, among other things.

Imported Fire Ant (IFA)

FCREP activities also prevented the spread of IFA into new areas. This pest is a public nuisance and causes approximately \$6.3 billion in annual damage to homeowners, industry, and agricultural commodities, such as corn and soybean (according to a 2006 Texas A&M University study). IFA infests more than 366 million acres in Puerto Rico and 14 States: Alabama, Arkansas, California, Florida, Georgia, Louisiana, Mississippi, New Mexico, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, and Virginia. Each of these States/territories is under Federal quarantine. The program provides treatments for land managers to help them remove IFA from their products and prevent the human-assisted spread of IFA on regulated articles. To do so, the program evaluates the efficacy of regulatory treatments for preventing IFA spread and works with States, industry, and other Federal agencies to develop insecticides and biological control agents. In FY 2016, APHIS continued work on the development of an interactive IFA quarantine map with features that display the quarantine boundaries to assist nursery owners in determining if they are located in the quarantine area. APHIS met the program's performance target of no IFA infestations established outside of regulated areas that could be attributed to the movement of regulated articles infested with fire ants. Two infestations occurred in Virginia in FY 2016. These were within a mile of the quarantine border and are related to natural movement of the ants. APHIS expects to maintain this level of performance.

APHIS and cooperators also continued a biological control project using several species of phorid flies to target IFA. Since the spring of 2002, the program has conducted more than 165 releases involving four species of phorid

flies, with several releases in each of the States/territories under Federal quarantine. The four fly species are established in the southeastern States, with one species (*Pseudacteon curvatus*) spread throughout most of the southeastern IFA regulated area (excluding California and Arizona IFA areas), and one (*P. tricusps*) spread throughout more than 65 percent of the southeastern regulated area, primarily in the southern range. The other two species are established in small areas, *P. obtusus* in four States including California and *P. cultellatus* in Florida. The program is continuing releases of the two less established species of flies to supplement their current population levels. Reducing IFA populations will allow native ants to compete for resources, thus helping to restore ecological balance.

Karnal bunt

The FCREP program also addresses Karnal bunt, a fungal disease of wheat that was first detected in the United States in 1996. Many U.S. trading partners will not accept U.S. wheat unless it is certified to originate from areas where Karnal bunt is known not to exist. The program prevents the disease from entering the grain market system, spreading beyond the areas of Arizona where it is currently found, and directly affecting most other States. In 2015, farmers across the country planted 54.6 million acres of wheat and harvested more than two billion bushels of wheat with a value of \$10.2 billion (National Agricultural Statistics Service, Crop Values 2015 Summary). By keeping Karnal bunt contained to portions of one State, the program protects this wheat production across the country. USDA's Economic Research Service estimated in 2010 that, without the program's efforts, there would be a cumulative reduction of national net farm income of \$8 billion over the next eight years. In 2016, 34 wheat-producing States participated in the Karnal bunt national survey. The program anticipates testing more than 1,000 samples for the year, with no positive samples reported as of October 2016. Based on this national survey, the program certifies wheat exports free of Karnal bunt, assuring trading partners about the safety of U.S. wheat exports, retaining export markets, and facilitating wheat movement into domestic and international markets. In 2015, the United States exported 775 million bushels of wheat with a value of \$5.6 billion (National Agricultural Statistics Service, Crop Values 2015 Summary). Without the Karnal bunt program to certify these exports, wheat trade would be disrupted.

Witchweed

Another concern for the FCREP program is witchweed, a parasitic plant that can significantly damage corn, sorghum, and sugarcane. If witchweed were to spread throughout the Corn Belt, crop yields for corn and sorghum could decrease by 10 percent and trade in commodities from these areas could be negatively impacted. Since program activities began in 1957, APHIS and cooperators have successfully eradicated witchweed from 99 percent of the infested areas in North Carolina and South Carolina. These activities consist of frequent field inspections, treatment of infested acres (tillage, ethylene injections to stimulate seeds to sprout, and hand-pulling and herbicide application), conducting post-eradication surveys, and addressing any new infestations. Annual APHIS surveys last into November each year. For South Carolina, there were 130.3 acres in the infested category (including new acreage). The program surveyed a total of 9,814 acres and treated 148 acres for witchweed and presence of host plants. New witchweed finds occurred on 4.3 acres. For North Carolina, APHIS and cooperators surveyed more than 57,200 acres and treated 1,873 acres. At the end of the 2015 growing season, there were 1,140 infested acres, a reduction of 132 acres from 2014. Because witchweed seeds can remain viable in the soil for up to 14 years, and a host plant must be present for witchweed germination, year-to-year fluctuations in the number of acres infested are common. The total number of infested acres may increase slightly at the end of the 2016 growing season. Efforts to contain and eradicate witchweed directly protect approximately 2,100 acres of corn worth \$1.5 million in the area immediately impacted (Purdue, 2012). By preventing the spread of this damaging weed, the program indirectly protects nearly 88 million acres of corn valued at \$49 billion in 2015 (National Agricultural Statistics Service, Crop Values 2015 Summary).

4. Pest Detection

The goal of the Pest Detection Program is to document the presence or absence of plant pests and diseases of Federal regulatory significance in the United States. This documented information serves as the basis of APHIS' regulatory efforts and pest management programs that preserve economic opportunities for farmers (i.e., interstate commerce and international trade) and safeguard U.S. agricultural and natural resources. The program works with

Federal agencies, State departments of agriculture, Tribes, academic institutions, and industry partners in all 50 States and several U.S. Territories to conduct these program activities.

APHIS and its State cooperators carry out plant pest surveys through the Cooperative Agricultural Pest Survey (CAPS) Program. APHIS provides national coordination for the program and develops policies and procedures for commodity- and resource-based surveys. These surveys enable APHIS and cooperators to target high-risk hosts and commodities, gather data about pests specific to a commodity, and provide accurate assessments of pest distribution, including pest-free areas. Early pest detection is important to avert economic and environmental damage; once a pest becomes established or spreads significantly, the mitigation costs can reach millions of dollars. This is in addition to lost farm revenues and damage to ecosystems. Additionally, while many entities are involved in protecting crops and resources, APHIS verifies that U.S. products do not pose risks to other countries. Pest surveys conducted through the program demonstrate absence of a pest, and are used in some cases to help address importing countries' phytosanitary requirements and retain access to many foreign markets.

In FY 2016, APHIS and cooperators conducted a total of 262 commodity- and taxon-based surveys in 50 States and 3 territories (with 118 surveys conducted by States and 144 by APHIS). The program targeted 136 high-risk pests of national concern for survey in corn, oak, pine, small grains, soybean, and nursery crop commodities, as well as exotic wood boring bark beetles and cyst nematodes, among others, representing 92 percent of the target pests suggested for survey in the 2016 Pest Surveillance Guidelines. Including pests of State priority, the program targeted 250 unique pests for survey in FY 2016, surpassing its performance target of 220. Surveys consisted of multiple pests for efficiency and economy of survey, with an average of 5.5 pests per survey, 22.5 pests per State, and 2-3 surveys per State. Along with surveys conducted through the FY 2016 Farm Bill Plant Pest and Disease Management and Disaster Prevention program, APHIS and cooperators added 87 additional taxon and specialty crop commodity surveys, and targeted 330 unique pests overall.

Sixteen new species in the United States were detected and confirmed through Pest Detection surveys, or otherwise reported to APHIS through entry in the National Agricultural Pest Information System database, as new or re-introduced to the United States. All 16 new plant pests were significant and listed as quarantine significant pests at the time of detection, where action would be taken if detected on conveyance at a port of entry. Examples include *Phytophthora quercina* (root rot of oaks) in California, *Setoidium murrayae* (a powdery mildew) in Hawaii, *Phytomyza gymnostoma* (Allium leafminer) in Pennsylvania, *Copidothrips octarticulatus* (a thrips) in Florida, *Cercospora coniogrammes* and *Colletotrichum cordylinicola* (anthracnose and leaf-spotting fungi) in California, *Meloidogyne mali* (root-knot nematode) in New York, *Agrilus smaragdifrons* (a buprestid beetle) in New Jersey, and the invasive weed *Philydrum lanuginosum* (wooly frogs mouth) in North Carolina. Having information about these detections allows State and local authorities to take action to prevent the spread of the pests.

The program also developed an effective non-regulatory response after detections of a new *Xanthomonas* pathovar (Xvv) were found to cause disease symptoms in corn in the United States. The response protected an export market worth more than \$6 billion through timely survey, a coordinated response across States, including the Cooperative Extension Service, and the collaborative input from industry. Growers, working with their State departments of agriculture and the National Institute of Food and Agriculture's Cooperative Extension Service, have now implemented safeguards, best management practices, and other tools to reduce risk of establishment of the disease in plants. Additionally, by remaining in close communication with domestic and foreign trading partners regarding APHIS' evaluation of the pest, the Agency was able to keep open the U.S. export market for corn.

The program's target for FY 2016 was to detect, through the surveys, 82 percent of the significant pest introductions before they spread from the area of original colonization and caused significant economic or environmental damage. The program detected 93.8 percent. Only one of these pests (*Phytophthora quercina* in California) was a high-risk pest of national concern specifically targeted for survey through the two programs; in effect, demonstrating freedom from high-risk pests nationally.

5. Plant Protection Methods Development

The goal of the Plant Protection Methods Development (PPMD) program is to develop scientifically viable and practical tools for exotic plant pest exclusion, detection, and management. These tools preserve economic

opportunities for farmers and industries that engage in interstate commerce and international trade, and safeguard U.S. agricultural and natural resources from invasive plant pests. The program plays an essential role in APHIS' mission by developing tools for detecting exotic pests in survey programs; developing molecular diagnostic tests and identification tools for pest identification; developing integrated pest management methods, including biological control, to help eliminate or manage invasive pests; and developing phytosanitary treatments to support interstate and international trade. A major focus of this program is to develop and implement biological control technologies that allow for the use of natural enemies alone, or in combination with other control tactics, to effectively mitigate the impacts of introduced, invasive insect pests, weeds, and plant pathogens, while minimizing impacts to the environment.

The PPMD program aims to develop new, or improve existing, tools each year to enhance APHIS' safeguarding capabilities. For pest identification, the program continues to design, develop, and deliver digital, media-rich, identification tools for APHIS to support trade and domestic, port, and offshore pest identification responsibilities. In FY 2016, APHIS developed a web-based identification tool, Bee Mite ID, for pollinator mites covering more than 85 species. The program enhanced the *imageID* tool to assist with identification of pests intercepted at ports by adding 15,000 images, with more than 75,000 images now available. In addition, APHIS released a significant update to enhance the customer interface on the IDPic website, which provides pest images specifically to stakeholders and the public. This update added more than 4,000 images for a current total of more than 27,000 images. PPMD has also improved molecular analysis of recent fruit fly detections to determine possible pathways of introduction, and has been able to exclude several introduction scenarios to improve safeguarding. In the area of phytosanitary treatments, APHIS conducted research to support five new treatments for pests in commodities, including two species of fruit flies, snails, khapra beetle, and European grapevine moth, to support safer trade and a reduction in methyl bromide fumigation.

The program also develops pest management techniques used to manage or eradicate invasive pest threats. In FY 2016, the program developed several improvements in fruit fly rearing for sterile insect eradication programs that will improve quality and reduce costs. These improvements include modifying the larval rearing diet for Mediterranean fruit fly, the development of liquid diets to replace agar diets to feed adults, and the transfer of new black pupae sexing strain of Mexican fruit fly to the Texas eradication program, resulting in a reduction in diet costs and in equipment and space requirements.

The program made advances in major technology initiatives for applications of unmanned aerial vehicles (UAV) and detector dogs for domestic pest detection. In FY 2016, the program developed the accurate size load in which one can safely operate equipment without causing tipping or nose diving for UAV release of sterile pink bollworm for eradication programs and demonstrated successful pilots for the use of UAVs in surveys for Asian longhorned beetle (ALB), as well as safer sampling of grains from silos at ports. In FY 2016, the program provided oversight of pilot projects on the use of detector dogs for citrus greening, citrus canker, plum pox, Asian longhorned beetle and coordinated with partners on giant African snail and laurel wilt, demonstrating detection rates of more than 90 percent for a variety of pests. The program also provides conventional and molecular diagnostics for plant pathogens detected during domestic surveys and emergency programs, including diagnostic support for the plant pathogens that cause huanglongbing (HLB) or citrus greening, citrus Canker, sweet orange scab, and sudden oak death, among others. During the summer/fall of 2016, the bacterial pathogen *Xanthomonas vasicola* *pv. vasculorum* was first identified in the United States, and the program performed molecular diagnostic testing on more than 570 corn samples from 12 States over six weeks to support the emergency survey response.

In FY 2016, the program continued to advance area-wide pest management and biological control methods for the Asian citrus psyllid (ACP), the vector for HLB. The program provided methods support to California program partners for two promising biological control agents – *Tamarixia radiata* and *Diaphorencyrtus aligarhensis* ectoparasitoids. These agents attach to ACP and ultimately kill in the process. Our methods support increased production of these agents by 31 percent. Agency evaluations show *Tamarixia radiata* establishment at 92 percent of release sites in California and 44 percent in Arizona. *Diaphorencyrtus aligarhensis* shows establishment at 66 percent of release sites in California. APHIS also used psyllid diagnostic data analyses to update survey protocols in California, leading to additional disease detections.

The PPMD program also maintains its own quarantine and/or rearing facilities for biological control agents in Arizona, California, Colorado, Massachusetts, Michigan, Texas and Guatemala. APHIS partners with USDA's Agricultural Research Service, the U.S. Fish and Wildlife Service, State departments of agriculture, universities in 30 States and territories, and two Native American Tribes to evaluate and establish biological control agents for invasive plants, pests and diseases. Some key program targets included Asian citrus psyllid, brown marmorated stink bug, emerald ash borer, ALB, hemlock woolly adelgid, spotted wing drosophila, mile-a-minute-weed, Dalmatian toadflax and Russian knapweed. In FY 2016, APHIS worked with partners to conduct an exploration in China for biological control agents for ALB, which resulted in the discovery of a parasitic beetle of ALB, and six parasitoids that attack ALB eggs and larvae. The Agency is currently testing for the potential use of the biological control agent in the domestic ALB program. In addition, a new egg parasitoid was identified for spotted lanternfly and is now being tested in quarantine.

In FY 2016, the program released a new biological control agent, *Parafreutreta regalis*, to combat cape ivy. Cape ivy climbs over most vegetation, forming a solid cover that blocks light and smothers other vegetation. The weight of the ivy mass sometimes causes trees to fall. Habitats for both plants and animals in protected natural reserves have been rendered worthless when large portions are occupied exclusively by cape ivy. This new biological control agent is the first to successfully go through the review and environmental compliance process in five years. By the end of FY 2016, the new biological control agent has been introduced into the following 14 States: Colorado, Connecticut, Illinois, Indiana, Iowa, Massachusetts, Michigan, Minnesota, New York, Ohio, Pennsylvania, Tennessee, Virginia, and Wyoming. The program plans to continue releases of the agent in additional areas in FY 2017.

In FY 2016, the program met its performance measure target of 78 for the cumulative number of biological control projects that APHIS develops, implements, or transfers to States and other stakeholders.

6. Specialty Crop Pests

The goal of the Specialty Crop Pests (SCP) Program is to protect U.S. fruits and vegetables, tree nuts, horticulture, and nursery crops from adverse impacts associated with invasive pests, such as crop damage or threats to international trade and interstate commerce. APHIS works with State, Tribal, university, and industry partners to develop and implement practices, policies, and regulations that prevent or mitigate impacts for invasive pests of Federal regulatory significance. These activities include verifying pest distribution, identifying and mitigating risk pathways to prevent long distance spread of the pests, developing and implementing diagnostic tools and pest mitigation strategies, and communicating with the public to gain support for program strategies. These efforts promote the ability of U.S. farmers to export their products, prevent damage to specialty crop production (helping to ensure the availability of fresh fruits and vegetables), and protect natural resources, including forests and residential landscapes. Among the pests and diseases the program currently addresses are exotic fruit flies, a variety of citrus pests and diseases, the glassy-winged sharpshooter (GWSS), pale cyst nematode (PCN), the light brown apple moth (LBAM) and the European grapevine moth (EGVM). Overall, the program directly protects specialty crop production worth approximately \$9.4 billion in 2015 [based on APHIS analysis using National Agricultural Statistics Service (NASS) data]. The program indirectly protects additional specialty crop production worth nearly \$20 billion by preventing the spread of these damaging pests and diseases to new areas. Without the SCP program, U.S. trading partners might not accept a variety of U.S. fruits and vegetables. The value of trade in specialty crops that could potentially be disrupted each year is \$8.8 billion, according to an internal APHIS report using data from the Global Trade Atlas.

Grapes

The SCP program targets several devastating pests and diseases that could affect grape production and impact export markets, including GWSS and EGVM. Thirteen States produce grapes commercially, with California accounting for more than 83 percent of the total acres in production in 2015 (NASS Noncitrus Fruits and Nuts 2015 Summary). In August 2016, APHIS declared that EGVM has been eradicated from California and lifted quarantine regulations from the remaining 446 square miles of Napa and Sonoma Counties. In FY 2016, APHIS and the California Department of Food and Agriculture (CDFA), along with industry partners, continued surveillance efforts for EGVM and did not detect a single moth during the year. APHIS and program partners had not detected a moth

since FY 2014, when only one moth was detected. For the six-year eradication effort, APHIS partnered closely with CDFA, affected counties, industry, and the University of California Cooperative Extension Service to conduct intensive survey and treatment activities. The EGVM program is transitioning to a post-eradication surveillance and response plan to continue surveys for at least three years to ensure that any moths present would be detected quickly.

APHIS also continued the successful, cooperative GWSS program designed to suppress populations of this pest where established in grapes, citrus, and nursery stock. GWSS is a vector for Pierce's disease (lethal to grapevines), and the program's suppression and regulatory activities work to prevent the spread of the vector and disease across California. Higher pest populations associated with warmer temperatures and dry conditions in the State have challenged the GWSS program over the last several years. In FY 2016, the program continued to conduct surveys and other regulatory activities (including inspections of nursery stock and bulk citrus) for the pest in 49 California counties, and continued area-wide suppression activities in affected agricultural production areas of four California counties. With citrus growers' voluntary suppression treatments, the program covered more than 40,000 acres, an increase of approximately 11,000 over FY 2015. Of the more than 33,000 shipments of nursery stock from infested areas, only eight were rejected due to GWSS. In FY 2016, the program adjusted its schedule for treatments and other activities based on earlier GWSS egg-laying activity. Program officials continue to evaluate what other adjustments will be necessary to continue mitigating the effects of this pest with changing weather patterns, but the increase in suppression treatments helped reduce GWSS populations. Together, the EGVM and GWSS programs directly protected grape production worth \$4.9 billion in 2015, in the State of California (NASS Non-Citrus Fruits 2015 Summary).

Citrus

Citrus fruits are high-value specialty crops and a nutritious food for consumers across the world. The United States is the sixth largest exporter of citrus by volume and fourth largest in terms of value, according to the Global Trade Atlas. APHIS supports the citrus industry's continued ability to produce, harvest, process, and ship citrus fruits and nursery stock despite the presence of diseases such as citrus canker, citrus greening or huanglongbing (HLB), and citrus blackspot. In FY 2016, APHIS and cooperators in citrus-producing States surveyed nearly 619,000 acres of citrus across the country, providing timely information about the presence of pests and diseases to growers and State government partners. This information allows growers to take necessary actions to manage their groves and allows APHIS and States to update quarantine boundaries and regulations to prevent the spread of serious citrus pests and diseases through the movement of regulated materials. Based on the results of surveys during FY 2016, APHIS adjusted quarantine boundaries in Arizona, California, Nevada, Louisiana, and Texas for citrus greening, Asian citrus psyllid, citrus blackspot, or citrus canker. APHIS has continued to engage the public through the Save our Citrus Campaign, helping to expand outreach in residential areas of Arizona and Texas. In Texas, a resident reported one of the new citrus canker detections. In areas affected by these pests and diseases, APHIS' flexible regulatory protocols have minimized the impact of the quarantines on growers, who can move citrus out of quarantined areas to packinghouses if they follow mitigation procedures to prevent the disease or its insect vector from spreading. More than 11,400 businesses were able to move regulated host materials such as citrus fruit and nursery stock under compliance agreements with APHIS in FY 2016. In Florida, in FY 2016, APHIS and cooperators continued extensive surveys that provide citrus canker and citrus blackspot free production units for export packing to the European Union, supporting the export of \$35.5 million worth of citrus from these areas. APHIS also continued to support area-wide management of the ACP, an insect vector that spreads HLB, in Florida by providing survey data every three weeks to the growers participating in Citrus Health Management Areas (CHMAs). Citrus growers participating in CHMAs, which are managed by the Florida Department of Agriculture and Consumer Services, coordinate the applications of pesticides to suppress ACP populations in commercial citrus groves. The CHMAs in Florida continue to represent approximately 93 percent of the State's citrus acres in production. ACP counts are significantly lower when ACP management is coordinated. APHIS also supports area-wide management efforts in Texas with the Texas Department of Agriculture and provides assistance to the California Department of Food and Agriculture, which is developing similar efforts in that State. In FY 2016, APHIS continued a biological control program targeting ACP. This program, which employs a predatory wasp against ACP, augments current management methods, especially in residential areas in California, Arizona, and Texas, where use of chemical pesticides is undesirable. Biological control efforts in Texas have reduced the ACP population by more than 50 percent. Louisiana also began releasing biological control agents to suppress ACP in FY 2015. With the HLB Multi-Agency Coordination Group, the program funded projects with the goal of

increasing production of biological control agents from approximately 4 million in FY 2014 to 10 million by FY 2016. The projects exceeded the targets, producing 8.5 million in FY 2015 and an estimated 12 million in FY 2016. APHIS also releases biological control agents in areas of Mexico (Baja California and Tamaulipas) adjacent to citrus production areas in California and Texas to suppress ACP populations and prevent them from spreading into the United States. These citrus health activities directly protect citrus production on approximately 737,800 acres in the United States worth more than \$3.3 billion for the 2015-2016 growing season (NASS 2016 Citrus Fruits Summary). Without APHIS' activities, citrus exports could be at risk each year. In 2015, the value of U.S. citrus exports totaled \$956 million (NASS).

Tree Fruit and Nursery Stock

APHIS protects a wide variety of specialty crops (especially tree fruit and citrus) through exotic fruit fly exclusion and detection activities. One of our key strategies is maintaining a barrier against the spread of the Mediterranean fruit fly (Medfly) northward from Central America. Medfly is one of the most destructive agricultural pests in the world, attacking more than 300 cultivated and wild fruits and vegetables. APHIS and cooperators produced 1.04 billion sterile Medflies per week in FY 2016, to maintain the barrier in Mexico, Guatemala, and Belize and to release on a preventive basis in high-risk areas of California and Florida. In FY 2016, the international, cooperative program faced a spike in the number of Medfly outbreaks in the area due to El Nino weather patterns. As expected, the number of detections in the free areas of Mexico and Guatemala increased significantly, from 31 in FY 2015, to 335 in FY 2016. The program implemented response protocols for eradication and even slightly expanded the Medfly free area in Mexico, Guatemala, and Belize from 149,000 square kilometers in FY 2015, to 149,110 square kilometers in FY 2016. The international program will continue detection and control activities in FY 2017.

Domestically, APHIS and State cooperators maintain the cooperative Preventive Release Program, which releases sterile fruit flies in high-risk areas to prevent any introduced Medflies or Mexican fruit flies (Mexflies) from reproducing and establishing a population in the United States. APHIS and cooperators also maintain a detection network of approximately 150,000 traps in California, Florida, Puerto Rico, and Texas. When outbreaks occur, APHIS and cooperators implement immediate emergency response activities to eradicate them. While there were no Medfly outbreaks in the continental United States during FY 2016, the program faced increased outbreaks of Mexfly in Texas. In addition to the three counties in the Lower Rio Grande Valley that may typically experience Mexfly incursions, outbreaks occurred in two new counties (Webb and Zapata Counties). These increased outbreaks are likely related to security concerns in northern Mexico, where Mexfly is endemic, that have impacted the cooperative U.S.-Mexico program's ability to conduct detection and control activities on the Mexico side of the border. APHIS eradicated four of the eight Mexfly outbreaks in FY 2016, and expects to complete response activities for the remaining four in FY 2017. APHIS will continue enhanced Mexfly surveillance in FY 2017.

Additionally in FY 2016, APHIS responded to an outbreak of the Malaysian fruit fly in the Los Angeles area of California, the first time this species has been detected in the United States, and completed the response using ground treatments and traps with attractants. During the year, APHIS and cooperators managed quarantines covering 2,411 square miles. As the program completed operations, many of these areas were released from quarantine. At the end of the fiscal year, 797 square miles remain under quarantine and will be released in FY 2017. Due to Medfly outbreaks in the Dominican Republic and Puerto Rico in FY 2015, APHIS and cooperating countries in the Caribbean increased surveillance for exotic fruit flies, especially Medfly. In FY 2016, 15 Caribbean countries participated in these efforts, and APHIS anticipates that 19 countries will participate in FY 2017, providing an early warning network for the occurrence of this damaging pest close to U.S. shores. APHIS' exotic fruit fly prevention and eradication activities protect producers of citrus, stone fruits, vegetables, and a variety of other specialty crops from damages associated with the pests, increased production costs, and export restrictions.

APHIS and cooperators also work to address plum pox virus (PPV) and Light Brown Apple Moth (LBAM) to protect producers of tree fruit and other specialty crops. APHIS is monitoring areas along the Niagara River that border an area in Canada with a PPV infestation. In September 2015, a single PPV-positive tree was detected in Ulster County, New York, which is more than 200 miles away from previously affected areas. In FY 2016, APHIS and cooperators conducted surveys in the Hudson Valley, Adirondack, and Niagara regions of New York with no positive finds. APHIS has established a quarantine in a one mile area surrounding the positive detection that encompasses portions of Ulster and Orange Counties. APHIS, New York cooperators, and an orchard

owner/operator cooperated to remove the affected tree and trees in a buffer zone, and APHIS and New York have compensated the impacted grower based on the program's compensation regulations. Trace-back investigations are underway to determine the origin of the introduction. With funding from the Pest Detection's Cooperative Agriculture Pest Survey program and Farm Bill, APHIS continues to support yearly PPV detection surveys throughout the United States to ensure that this disease is not present in other areas. Currently, 36 States with commercial stone fruit production participate in the national stone fruit commodity survey, which is conducted on a rotating basis among participating States.

In FY 2016, APHIS and the State of California continued to monitor LBAM and found that the pest had spread to one new county, for a total of 22 counties in California. APHIS continues to evaluate pathways through which LBAM could spread and ensure that California products can be moved safely. In August, 2016, two LBAM were found in traps in the Willamette Valley (Polk County). APHIS is working with the Oregon Department of Agriculture to further delimit the extent of the incipient infestation and evaluate the possible pathways and most effective response actions.

APHIS protects natural resources and nursery stock production and trade by limiting the spread of *Phytophthora ramorum* from quarantine areas and affected nurseries through regulatory strategies and adoption of mitigations and changes to cultural practices. *P. ramorum*, which causes sudden oak death, can be moved through host nursery stock and can affect a variety of forest trees. APHIS and State efforts have kept the disease from impacting natural resources, outside of 15 counties in California and a small area in Curry County, Oregon, for more than 10 years. Over the last several years, APHIS has streamlined the *P. ramorum* regulatory framework for nurseries shipping host nursery stock interstate through two Federal Orders that relieved regulatory requirements on 2,800 low-risk nurseries. Since March 2014, for nurseries outside the quarantine areas, the program is only regulating those that are positive within the preceding three years and that ship host nursery stock interstate. Because of the presence of *P. ramorum* in the surrounding environment, nurseries within the quarantine area that ship interstate must meet annual certification survey and sampling requirements to prevent the movement of potentially infested material. Any interstate shipping nurseries that test positive must participate in a compliance program using disinfection protocols to eliminate the pathogen and implement required mitigations focused on critical control points to reduce the risk of reintroduction. Currently, 24 nurseries are participating in the program. Along with the streamlined regulatory program, APHIS and State cooperators have targeted inspection efforts toward the highest risk nurseries.

Through all of these activities, APHIS directly protects nursery stock production worth approximately \$1.5 billion (2012 Census of Agriculture) and tree fruit production worth more than \$1.2 billion (APHIS Internal Analysis based on NASS data). Through keeping pests and diseases like exotic fruit flies, PPV, and LBAM from spreading to new areas, the program indirectly protects more than \$13.6 billion in fruit and nursery stock production (APHIS Internal Analysis based on NASS data).

Potatoes

APHIS addresses two major potato pests, the PCN in Idaho and the golden nematode (GN) in New York. APHIS and cooperators have confined each to a relatively small area, and continued survey and regulatory efforts protect export markets for U.S. potatoes from 36 States. In FY 2016, APHIS tested 22,634 soil samples in Idaho for the PCN eradication effort and 4,870 from neighboring States for detection of potato cyst nematodes. PCN has not been detected outside of Idaho, and fumigations of infested fields in Idaho have reduced PCN populations by 99 percent since the pest was first detected in 2006. Based on delimiting survey results, APHIS released 462 acres of fields that had been regulated because of their association with other regulated or infested fields in FY 2016. No new fields were added to the regulated area in FY 2016. The PCN program regulates a total of 9,853 acres, of which 2,897 acres are infested. In the treated fields that no longer show PCN viability according to a greenhouse bioassay test, producers can plant potatoes with continued monitoring by APHIS and cooperators to ensure PCN is not present. By the end of FY 2016, eight infested Idaho fields had successfully completed the greenhouse bioassay phase of evaluating eradication progress. During the greenhouse bioassay, the program tests the viability of nematodes found in the soil. If the nematodes are found to be non-viable (they fail to reproduce under favorable conditions in the presence of a host), the fields from which they came are eligible to return to potato production. These fields remain regulated but benefit from reduced sanitation requirements. One grower planted potatoes on half of his eligible field in FY 2015; an intensive survey to check for viable PCN following harvest did

not show signs of viable PCN. The other half of the field was planted with potatoes in FY 2016. The program sampled the field after harvest, with no viable cysts found. The program is also developing new mitigation tools for PCN that may serve as alternatives to methyl bromide fumigations or provide additional control following fumigation. These include the use of trap crops (planting a crop similar to potatoes that will stimulate nematodes to hatch but not allow them to reproduce) and fungus and biological control agents as control tools. APHIS and cooperators planted the trap crop on 50 acres in FY 2016, and will evaluate the results during the upcoming fiscal year.

In FY 2016, APHIS and New York cooperators continued an effective survey and regulatory program targeting GN with a focus on deregulation of all eligible land. In FY 2016, APHIS tested 4,910 soil samples for the GN program in New York and 2,343 samples from neighboring States for potato cyst nematodes. The program conducted 1,592 regulatory treatments to ensure that equipment moving out of the affected area does not pose a risk for spreading the GN. In FY 2010, the program began a review of its regulatory strategy using the experience of the more recently established PCN program. Adopting strategies used in the Idaho program, the GN program is transitioning to focus on fields that are either infested or associated with infested fields rather than political boundaries such as townships. Thus far, over the last several years, the program changes have allowed the program to reduce the quarantined area by 76 percent by removing a total of 964,661 acres from quarantine, approximately one third of which had been developed for commercial or residential uses. The program expects to release an additional 14 percent of the regulated area in FY 2017. The program uses both greenhouse and in-field bioassay for deregulation of formerly infested fields. Nine formerly regulated potato production fields have successfully completed three consecutive in-field bioassay crops with zero viable cysts detected. Crop monitoring of these fields continues. Three final soil surveys following GN susceptible potato crops are necessary for complete deregulation. The fields remain regulated but benefit from relaxed sanitation requirements and enhanced crop options. Fourteen fields were tested using in-greenhouse bioassay with thirteen passing and one field yielding viable cysts. These efforts removed unnecessary restrictions on landowners while continuing to prevent the movement of GN.

Together, these efforts to address PCN and GN directly protect potato production worth \$409 million in and around impacted areas. These programs indirectly protect 1 million acres of potato production nationwide worth \$3.9 billion (NASS Crop Values 2015 Survey). Without these programs in place, trading partners might not accept U.S. potatoes, exports of which were worth approximately \$183 million in 2015 (NASS Crop Values 2015 Survey).

7. Tree & Wood Pests

The Tree and Wood Pests (TWP) program protects forests, private working lands, and natural resources from the Asian longhorned beetle (ALB), emerald ash borer (EAB), and gypsy moth. Numerous native hardwood tree species that are common throughout the United States are vulnerable to these pests. APHIS cooperates with Federal, State, Tribal, and local agencies, organizations, and institutions to conduct survey, regulatory, control, and outreach activities in 48 States to manage and, in some cases, eradicate these pests. Conserving forests enhances the economic vitality of rural communities by supporting forest-related industries, recreation and tourism, and the overall livability of communities. The value of forest products and ecosystem services protected by APHIS per program dollar spent is approximately \$21,000. In addition, trees in residential areas lower cooling bills, filter pollutants from the air, decrease runoff, and improve residents' quality of life. Annually, forest pests could cost local governments up to \$1.7 billion due to tree damage and removal, and \$830 million in lost residential property values according to a 2011 study conducted through the National Center for Ecological Analysis and Synthesis Working Group. Without Federal funding, forest pests would spread more rapidly throughout the United States, and responding to newly introduced pests would become increasingly difficult.

Asian longhorned beetle

The ALB threatens forest resources nationwide, as roughly 30 percent of U.S. trees are potential ALB hosts. The program's ALB eradication activities prevent multi-billion dollar losses to the maple syrup, timber, tree nursery, trade, and tourism industries. The annual contribution of forest-based manufacturing and forest-related tourism and recreation to the economies of Ohio, New York, and New England is approximately \$35 billion. ALB was first detected in Brooklyn, New York, in August 1996, and was later found in other areas of New

York, Illinois, New Jersey, Massachusetts, and Ohio. The program has successfully eradicated ALB from Chicago, Illinois; Islip, Staten Island, and Manhattan, New York; Jersey City, Middlesex County, and Union County, New Jersey. The program continues to conduct surveys in regulated areas of New York, Ohio, and Massachusetts.

APHIS' eradication strategy for ALB includes surveys, regulatory inspections and quarantine restrictions, removal of infested and high-risk trees, and chemical treatment applications. APHIS conducts several cycles of surveys to determine the scope of infestation, establish a quarantine area, identify trees to remove or treat, determine if the pest has spread outside of the established quarantine area, and determine when to release an area from quarantine. Four years is the minimum amount of time between that last detection of the pest in a given area and the completed final survey cycle. APHIS provides ongoing support to evaluate new methods and protocols to combat regulated pests and tailors project responses to site-specific conditions, resulting in a more efficient program.

In FY 2016, the program applied a new, targeted seasonal treatment in Ohio during the spring/summer season that involved 100 percent of the host trees within a 20 meter circumscribed area. After three consecutive years of seasonal treatment, the program will compare these host trees to control areas where no treatments were applied to test the success. Staff will randomly select areas treated in the fall/winter season from a host tree inventory list. During this season, treatments are applied to 50 percent of the randomly selected host trees. Evidence of ALB activity may be more apparent when only half of the trees are treated, as it will increase the likelihood that a small, latent beetle infestation will be discovered by subsequent surveys. This approach also will allow low-risk sites to be fully utilized and investigated since they will not be used as untreated control areas. In addition, the program developed a cost analysis of treating high risk host trees versus removing them for Ohio. The Agency is analyzing this information and considering the efficacy and feasibility of using chemical treatments as an effective control strategy in the future.

APHIS measures performance by tracking progress toward eradication. The program met its targets for FY 2016, and has eradicated 85 percent of the New York infestation, 34 percent of the Massachusetts infestation, and 15 percent of the Ohio infestation. APHIS is continuing to delimit the Clermont County, Ohio, and Long Island, New York infestations. In FY 2016, APHIS continued to focus on a second survey of the core infested area in Ohio, the second survey cycle in Massachusetts, final survey in Queens and Brooklyn, and determining the quarantine boundary on Long Island.

Emerald ash borer

Another forest pest of program concern is the EAB. In 2002, this pest was first detected in Michigan and has since been detected in 30 additional States, an increase of five since the end of FY 2015. Even though the pest was detected in these five States in FY 2016, it had likely been introduced into those States years earlier. In FY 2016, the program used a risk-based model to determine the best places to focus survey and trapping efforts, which helped identify the infestations. APHIS, along with Federal, State, and local agencies and stakeholder groups, continues to mitigate the human-assisted and natural spread of the pest and is continuing development of a biological control initiative designed to effectively manage EAB populations. APHIS will continue with regulatory enforcement at the leading edge of the infested region, outreach activities and national coordination with impacted States.

The program's biological control initiative provides a promising strategy, using several species of parasitic wasps for long-term EAB management. In FY 2016, the program continued conducting trial releases of parasitic wasps. As a result, 1 million parasitic wasps were released in 24 States: Arkansas, Colorado, Connecticut, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maryland, Massachusetts, Michigan, Minnesota, Missouri, New Hampshire, New Jersey, New York, North Carolina, Ohio, Pennsylvania, Tennessee, Virginia, West Virginia and Wisconsin. These trial releases focused on assessing the impacts of the wasps on EAB populations and tree health at and near release sites. The program expects an initial assessment of these impacts to take several more years.

The program's regulatory framework, which focuses on the leading edge of the infestation and contiguous quarantine areas, maximizes the efficient use of resources while minimizing impacts on regulated businesses in

quarantined areas. In FY 2016, APHIS expanded the quarantine area to approximately 690,000 square miles, based on the detection of infestations in unregulated areas of previously affected States. To prevent further artificial spread, the program regulates EAB host materials such as logs, firewood, and nursery stock. In FY 2016, APHIS maintained approximately 1,000 compliance agreements with businesses that handle EAB host materials. With these agreements, the program regulates the treatment and movement of host materials from quarantined areas.

In FY 2016, the EAB program proposed and implemented a fully contracted national survey. This approach reduced the cost of the survey and allowed for the deployment of greater trap quantities. In addition, a contracted national survey gained several advantages over the traditional approach. For example, there is improved data quality by receiving data through a single source that is more easily managed and controlled, and a reduction in indirect costs by spending less staff hours managing several individual cooperative agreements.

There were 26 detections outside of regulated areas recorded in FY 2016; down from the 47 detections in FY 2015, and the 57 detections in FY 2014. Although the number of new, non-regulated counties is down from FY 2015, these results continue to demonstrate improvements in the survey component of the program, including availability of improved detection tools, a sophisticated risk assessment-based method of developing each year's survey design in collaboration with the U.S. Forest Service (FS), and increased public awareness of EAB symptoms and reporting procedures for suspect trees. In addition, APHIS and FS have developed a computer based survey design tool with the same risk assessment options that State and local agencies use to implement EAB surveys. This tool will allow local surveys to integrate with APHIS survey work to provide a better indication of where EAB is established.

Gypsy Moth

European gypsy moth (EGM) is a destructive pest to some of North America's most beautiful and popular deciduous trees, including maples, oaks, and elms. This pest is established in all or parts of 20 northeastern, mid-Atlantic, and Midwestern States, as well as the District of Columbia. APHIS and State cooperators conduct regulatory activities in the quarantine area to prevent the human-assisted spread of the pest and the establishment of gypsy moth populations in non-quarantine areas. These efforts include inspection, treatment, and certification of regulated articles for movement from quarantine to non-quarantine (non-infested) areas. The program issues compliance agreements and conducts public outreach to ensure that businesses and residents in infested areas comply with regulations to prevent long-distance spread of the pest. EGM also spreads naturally into areas bordering the quarantined zone. APHIS monitors the transition zone along the 1,200 mile-long border of the quarantine area to ensure that newly infested areas are added to the quarantined zone and regulated effectively. Working with the Forest Service and the EGM Slow-the-Spread Foundation, APHIS and cooperators have greatly slowed the spread of EGM and eradicated isolated populations, keeping this pest from becoming a larger issue. In FY 2016, APHIS and State cooperators continued to conduct EGM surveys to detect, delimit, and eradicate any isolated populations. No additional counties were added to the quarantine in FY 2016.

Asian gypsy moth (AGM) is an invasive threat to North American urban and natural forests because of its broad host range, demonstrated damage potential, and its ability to compromise an effective management system that has taken nearly 100 years of research to assemble. AGM poses a particular risk to western areas because of its ability to hitchhike on shipping vessels from Asia. APHIS supports the exclusion of AGM through negotiations and support of offshore ship inspection and certification. Due to an increase in AGM egg masses that were intercepted on ships in 2012, APHIS, the Department of Homeland Security's Customs and Border Protection, and the Canada Food Inspection Agency conducted increased outreach to the maritime shipping trade over the last several years. APHIS coordinated joint U.S./Canada technical visits to Japan, China and Korea in FY 2014, FY 2015, and added Far East Russia in FY 2016, to gain more cooperation from the foreign cooperators, as well as the certifying agencies in each country. As a result of these efforts, the number of egg mass detections on vessels approaching the United States has dropped from 48 in FY 2014 to 1 in FY 2016, while during the same period the number of vessels with proper AGM certification has increased.

In FY 2016, the program conducted delimiting surveys in Oklahoma in response to a single detection of AGM in FY 2013 and FY 2014. No additional AGM were detected in Oklahoma in FY 2015 and FY 2016. In FY 2014, a

single detection of AGM was found in South Carolina. Although delimiting surveys in response to this detection discovered an additional single moth in FY 2015, no additional moths were detected in FY 2016. In FY 2015, one moth was discovered in Georgia. In FY 2016, no additional moths were detected during delimiting activities in Georgia. In FY 2015, there were a total of 14 moth detections in Oregon and Washington. In FY 2016, a total of 19,100 acres were treated on eight different sites in those States.

Selected Examples of Recent Progress – Wildlife Services:

1. Wildlife Damage Management

APHIS provides Federal leadership and expertise to resolve wildlife conflicts. Specifically, APHIS works to protect agriculture, human health and safety, property, and natural resources from disease and damage caused by wildlife. Cooperator participation and support is critical to the success of the Wildlife Damage Management (WDM) Program. APHIS' wildlife biologists coordinate activities in every State with Federal and State agencies, Tribes, local governments, private homeowners, farmers, ranchers, and other property owners to protect lands.

Agriculture

Livestock losses attributed to predators cost producers more than \$137 million annually, according to the most recent surveys by National Agriculture Statistics Service. APHIS prevents and reduces livestock predation through technical assistance to producers (education and outreach), and operational management programs. The majority of WDM predation management programs are funded by a combination of cost share monies.

APHIS plays a major role in the damage management of wolves and grizzly bears in the United States. APHIS personnel work with State wildlife agencies, the U.S. Fish and Wildlife Service and tribes to conduct wolf damage management programs, and provided additional services to capture and mark wolves and grizzly bears for research and population monitoring purposes. Where allowable, APHIS may remove depredating wolves to resolve conflicts. In FY 2016, APHIS responded to 1,252 reports regarding wolf depredation by providing a combination of direct control and technical assistance. This included 1,012 livestock animals killed in addition to other animals killed, injured, harassed and threatened by wolves. To avoid or reduce predation, APHIS provides technical assistance to producers on preventative measures to supplement our direct control activities, which are then implemented by producers themselves. In FY 2016, APHIS conducted 29 Predator Management Workshops to educate more than 1,000 producers on these methods, such as the use of guard dogs. These efforts help protect more than 6.5 million head of cattle, sheep, and goats valued at more than \$2.5 billion.

Feral swine are a harmful and destructive invasive species whose geographic range is rapidly expanding and populations are increasing across the nation. These invasive animals cause significant damage to property, agricultural animal health and crops, natural resources, public health and native ecosystems. A Cornell University study estimated the total cost of feral swine damage in the United States at \$1.5 billion annually. To address this growing problem, APHIS initiated the National Feral Swine Damage Management Program in 2014 with the goal of reducing damage and risk to agriculture, natural resources, property, animal health, and human health and safety in the United States and its Territories. The Agency's strategy is to provide resources and expertise at a National level, while allowing flexibility to manage operational activities from a local or State perspective. Collaboration with other Federal, State, Tribal, and local entities, universities, and organizations, along with landowners and others experiencing damage, is essential for controlling the spread of feral swine and suppressing or, where possible, eliminating populations.

In FY 2016, APHIS conducted cooperative, cost-share operational programs on approximately 157 million acres in 41 States and 2 Territories, directly protecting 107 threatened and endangered species and habitats. In the last two years of the program, APHIS and partners successfully eliminated feral swine from six States --Idaho, Maryland, New Jersey, New York, Washington and Wisconsin. The Agency continues to monitor these States for an additional two years to ensure feral swine are not reestablished. APHIS conducts disease surveillance and monitoring to protect the health of domestic swine, other livestock, and people by sampling 2,800 feral swine annually to assess disease risks. The Agency, along with university partners, is working to develop a feral swine toxicant and reproductive inhibitors to achieve permanent sterility in feral swine. Several economic analyses have

been conducted to better assess feral swine damage to agriculture, livestock, and limited resource farmers. In addition, an environmental DNA technique was developed to detect feral swine presence through genetic markers in water and a National Feral Swine Genetic Archive was established to assess the movement of feral swine and determine source populations.

Wildlife disease biologists provide technical assistance, conduct surveillance, and maintain control of more than 69 wildlife diseases, pathogens, and syndromes. Internationally, APHIS sponsored the third international training course in “Wildlife Disease Monitoring and Management.” Additional international programs include: collaborating with Colorado State University on bat disease surveillance in Cambodia; collaborating with the Chinese Academy of Science on wildlife disease issues; collaborating with Mississippi State University on emergence of avian influenzas in China; and collaborating with the Swedish University of Agricultural Sciences, Makerere University, Uganda Ministry of Agriculture, Animal Industry and Fisheries, Uganda Wildlife Authority, and International Livestock Research Institute to conduct African Swine Fever surveillance in Uganda. Finally, the Agency served on a U.N. Food and Agriculture Organization task force for wildlife disease, and conducted surveillance for Japanese Encephalitis and Chikungunya in Hawaii, Guam, and Pacific Island Territories.

Human Health and Safety

Rabies is one of the oldest known viral diseases, yet it remains a significant wildlife-management and public-health challenge. APHIS is the lead Federal agency to prevent the further spread of wildlife rabies, with the goal of eliminating rabies in carnivores in the United States using oral rabies vaccination (ORV). In FY 2016, APHIS and cooperators distributed more than 11 million ORV baits over 188,239 square kilometers. This is a continuation of the strategic distribution of more than 176 million baits since the program began in 1997. These programs have led to the elimination of canine rabies in coyotes, resulting in the United States being declared canine rabies free in 2007; the near elimination of gray fox rabies from Texas; and containment of raccoon rabies in the eastern United States. An internal economic analysis projected a \$1.1 billion economic impact over 22 years in the absence of the APHIS-led ORV program.

APHIS works with the Centers for Disease Control and Prevention and the Wistar Institute, an infectious disease and vaccine research institute, to streamline the use of a rapid rabies diagnostic field procedure to diagnose the disease within an hour. Since 2005, APHIS has conducted 79,566 rabies tests using this procedure, documenting 1,482 rabies cases, which in turn, facilitated science-based wildlife rabies management decisions. APHIS also coordinates with international partners through the North American Rabies Management Plan — which includes the United States, Canada, Mexico and the Navajo Nation — on surveillance activities, control programs, vaccine development, and field trials. An improved vaccine-bait combination holds promise for enhanced raccoon rabies control in the United States. In FY 2016, APHIS completed the 5-year, multi-State field trial necessary to register the oral rabies vaccine (ONRAB®) targeting raccoon, skunks, foxes and coyotes. Since 2011, APHIS has completed six ONRAB® field trials in five States, and two others are ongoing in eastern Vermont and in the Burlington, Vermont area. These studies have all been part of an effort to evaluate scientific evidence for the potential licensing of this vaccine.

Increased air traffic, faster and quieter aircrafts, increased populations of Federally protected species of birds, and increased populations of other wildlife all impact the safety of aircrafts, particularly in rural communities. Wildlife strikes cost commercial aviation approximately \$4.8 billion in the United States since 1990 and annually account for approximately \$1.2 billion worldwide. Since 1988, bird and other wildlife strikes have destroyed more than 100 civilian and military aircraft in the United States and killed 61 people. With funding provided by Federal, State and local cooperators, APHIS works to reduce wildlife impacts on aircraft and human safety. In FY 2016, APHIS mitigated wildlife hazards by assisting more than 850 civil and military airports nationwide. APHIS has similar programs at more than 100 domestic and international Department of Defense airbases that reduced wildlife strikes to military aircraft.

Property

Beaver damage in the southeastern United States has exceeded \$3 billion over the last 40 years. To address and prevent costly beaver damage, APHIS removes beaver dams that clog waterways and flood roads and timber

sources. On average, for every dollar spent in managing beaver damage, approximately \$15 of resources are saved. In FY 2016, APHIS conducted beaver damage management activities in 40 States. In South Carolina, the Agency removed more than 1,157 beaver dams, reducing damage by an estimated \$1.7 million, primarily to roads and bridges. In Wisconsin, APHIS worked with the State, tribes, and the U.S. Forest Service to protect and restore more than 1,600 miles of trout streams and economically and culturally important wild rice beds, and to protect roads, bridges, impoundments, and railroads. Other beaver damage management protected more than \$8 million in resources including; cold water trout streams, timber, roads and bridges, crops and pastures, drainage control structures and utilities.

Natural Resources

Non-native, invasive animals can devastate ecosystems. APHIS focuses on eliminating damage from brown treesnakes (BTS), nutria, and other invasive species. In Guam, BTS have eliminated most species of native birds, lizards, and bats, and continue to cause power outages leading to economic losses and public safety problems. In FY 2016, pursuant to funding from other Federal departments and the Guam Department of Agriculture contributed, APHIS continued the multi-agency partnership to prevent BTS movement from Guam to other Pacific Islands, Hawaii, and the continental United States. It is through this partnership that the Agency intercepted approximately 15,222 BTS in Guam during FY 2016.

Nutria damages wetlands, agricultural crops, and structural foundations such as dikes and roads. This South American rodent has destroyed tens of thousands of acres of marshlands critical to the health of the Chesapeake Bay. APHIS is leading the first large-scale North American effort to eradicate a mainland nutria population in the Chesapeake Bay through agreements with the U.S. Fish and Wildlife Service and other cooperators. Since 2002, in cooperation with Federal and State agencies and private landowners, APHIS has removed nutria from more than 250,000 acres of coastal marshland. APHIS rotates the monitoring of six watersheds, covering 360,000 acres, annually to prevent the re-infestation of the area. In FY 2016, APHIS monitored approximately 289,000 acres in four watershed areas and will continue monitoring and removing any remaining nutria. As a result of these efforts, marsh grasses and native muskrat populations are quickly recovering.

APHIS partners with various Federal and State resource agencies, private organizations, and community groups to conduct damage management that benefit protected bird species by protecting nests, eggs, juveniles, and adults from predation by other birds and mammals. APHIS has estimated damages or damage threats to birds, including threatened and endangered species, to be more than \$70 million. In FY 2016, APHIS conducted more than 1,000 conservation actions that benefitted protected species in 37 States, Guam, Virgin Islands, and Cuba (Guantanamo Bay).

2. Wildlife Services Methods Development

The Wildlife Services Methods Development (WSMD) Program develops effective and socially responsible methods and information to manage conflicts between people and wildlife to protect agriculture, natural resources, and human health and safety. This program provides research in support of the Agency's animal health programs such as feral swine, invasive species, wildlife disease research, and population and reproduction control, among others. APHIS' National Wildlife Research Center (NWRC) provides the only dedicated Federal leadership in developing methods to manage wildlife-related damage problems. Scientists work on a variety of wildlife damage management problems, including discovery, development, and technology transfer of products and management methods. The majority of NWRC studies involve partnerships with State and Federal agencies, non-governmental organizations, universities, tribal governments, and private sector businesses. In FY 2016, NWRC initiated 160 new studies and published 115 scientific papers in 67 professional scientific journals.

Agriculture

The WSMD program develops methods to safeguard livestock from predators, manage invasive species, and minimize the impact of wildlife diseases. The following are examples of efforts to protect American agriculture, which includes protecting resources related to farming and ranching such as livestock, crops, timber, and animal products, and other associated industries.

Established in 2014, APHIS' National Feral Swine Damage Management Program aims to reduce feral swine damage. The NWRC conducted research activities in support of the development and registration of a toxicant and delivery system. The system is selective for feral swine and maximizes the availability of bait to the maximum number of pigs while excluding non-targeted species. The Agency is moving to have the completed toxicant and delivery system available for use in 2021, which will serve as a critical component in the long-term success of reducing feral swine populations. NWRC continued efforts to develop a feral swine genetic archive. To date, more than 5,400 samples have been collected, with 75 percent of those added to the archive within the past two years. The NWRC will soon have the necessary sample sizes to address questions about local or regional processes that influence feral swine expansion and their impacts on native ecosystems.

Livestock producers use many methods to reduce predation from coyotes, bears, wolves, mountain lions, and domestic dogs. An effective predator management program typically incorporates a variety of methods to increase productivity. Many western ranchers use livestock protection dogs to deter predation by coyotes, but some commonly used species of dogs are not effective against wolves and grizzly bears, which sometimes kill these traditional breeds. APHIS scientists initiated a series of studies to evaluate three larger breeds of dogs that have been used successfully to deter livestock predation by wolves in Europe. In FY 2016, the NWRC completed a three-year study comparing three breeds of dogs commonly used to protect livestock from wolf predation in Europe to dogs typically used in the United States to prevent predation by coyotes. In FY 2016, the Agency analyzed the data for the multi-year study and will publish results from the study in FY 2017.

Aeromonas hydrophilia is a bacterial disease of great concern to commercial catfish farmers in the Southeast, resulting in 3 million pounds of lost production per year. Recognizing the severe economic impact of this disease, NWRC evaluated the potential for double-crested cormorants to be vectors for the transmission of a virulent strain of *Aeromonas hydrophilia* between channel catfish culture ponds. APHIS fed infected catfish to captive cormorants and determined that the birds can shed viable bacteria and thus potentially spread the disease among ponds. Based on this evaluation, the Agency recommends that bird harassment efforts be focused on birds visiting diseased ponds.

Natural Resources

The NWRC develops methods that protect natural resources from the impacts of invasive species, while minimizing or eliminating the use of toxicants that could damage the environment or contaminate food sources for non-target animals. The following are examples of efforts to protect natural resources, which include those resources associated with publically managed parks, lakes, State and national forests, fish, and wetlands.

With no native predators, the brown treesnake (BTS) population has increased to an estimated one to two million snakes on the island of Guam. The BTS is responsible for the disappearance of most native bird, bat, and lizard species on the island. In collaboration with the private sector, the NWRC has developed a bait delivery system to manufacture and distribute large numbers of baits for the suppression of snake populations. In FY 2016, in collaboration with State and Federal partners, APHIS conducted its second, large scale aerial treatment using acetaminophen-treated dead mouse baits attached to biodegradable streamer-like cartridges. For the first time, the Agency used an automated delivery system to distribute the baits. The development of an automated system allowed the Agency to expand the scope of the treatment area to over 270 acres, nearly double from the previous year. The development of the automated bait delivery system improves the cost-efficiency of treatment to where large-scale treatment is now feasible. Intensive monitoring of BTS activity after the bait drops showed an 80 to 85 percent reduction in BTS activity in the treated area and no evidence of impact to non-target species.

Because animals shed DNA into the environment from their skin, saliva or other cells, the presence of these genetic fragments can often be detected. Historically, the transport of water samples containing environmental DNA samples to a laboratory for testing has required a cold chain of storage, which hindered the use of sampling. In FY 2016, APHIS developed a method for collecting environmental DNA samples that does not require a cold chain or pumping of water through a filter in the field. This improved method reduces both the logistical issues and costs associated with transporting environmental DNA samples. This new method increases the ability to detect rare or elusive species for conservation, surveillance for invasive species, and detection of pathogens of zoonotic or animal health concern.

Human Health and Safety

While the only licensed bait currently used in oral rabies vaccination (ORV) programs has proven to be effective in preventing the spread of raccoon rabies and eliminating rabies variants in coyotes and foxes, APHIS is evaluating a new vaccine-bait combination (ONRAB®) that could allow the program to reach its next goal of raccoon rabies elimination. The new vaccine-bait combination could not only better control rabies in raccoons, but may also better target skunks, which are critical to overall rabies control efforts. In FY 2016, APHIS concluded a multi-year study of the effectiveness of the new vaccine-bait combination. NWRC evaluated the seroconversion rates of the new vaccine bait in three important regions (West Virginia, the Virginia/Ohio region, and the New Hampshire/New York/Vermont region). Effective vaccination rates were achieved that were higher than rates achieved using only the original vaccine historically used to prevent the spread of rabies in raccoons. With the conclusion of the study, NWRC has submitted the necessary documentation for product registration. The registration is currently undergoing evaluation with USDA's Center for Veterinary Biologics.

On average, approximately 95 percent of all samples sent to laboratories for analysis are determined to be negative. The costs associated with testing large numbers of samples can be significant. The NWRC developed a rapid, field-portable biosensor for detecting *Salmonella* in livestock and wildlife fecal samples. This simple, portable biosensor allows disease samples to be tested in the field, significantly decreasing costs associated with broad-scale surveillance of emerging and foreign pathogens in wildlife.

Partnerships and Technology Transfer

The Federal Technology Transfer Act of 1986 allows Federal laboratories and industry to form partnerships that enhance the development of new technologies and move them to the marketplace to meet public and consumer needs. APHIS regularly partners with Federal and State entities, private companies, international groups, and non-governmental organizations to encourage the development and licensing of new wildlife damage management products to manage wildlife conflicts.

These efforts have resulted in three relationships with industry partners. First, the NWRC entered into intellectual property agreements with three manufacturers of rabies baits to improve the efficacy of baits currently used for managing raccoon rabies and to develop new bait formulations for skunk rabies and rabies in mongoose. Second, the NWRC is working towards the development of novel formulations of naturally occurring chemicals that are repellent to birds. These collaborations have led to the submission of four patent applications. Finally, the NWRC continues to work with a small startup company through a Cooperative Research and Development Agreement on the introduction of a product line based on the GonaCon Immunocontraceptive Vaccine.

Selected Examples of Recent Progress – Regulatory Enforcement:

1. Animal and Plant Health Regulatory Enforcement

Animal and Plant Health Regulatory Enforcement (APHRE) provides investigative and enforcement support to the Agency's four regulatory programs and Agricultural Quarantine Inspection (AQI) activities carried out through the Department of Homeland Security, Customs and Border Protection. APHRE investigates alleged violations of Federal laws under its jurisdiction and pursues appropriate enforcement actions through administrative, civil, or criminal procedures.

In FY 2016, APHRE initiated 2,154 new cases; issued 1,320 Official Warnings; conducted 458 pre-litigation settlements resulting in the collection of \$728,602 in stipulated penalties; and obtained administrative orders assessing \$3.9 million in civil penalties. Highlights from each APHIS program are described below.

To support animal health, APHRE initiated 155 cases; issued 65 Official Warnings; and issued 8 pre-litigation settlements resulting in the collection of \$11,250 in stipulated penalties and \$21,475 in civil penalties against persons for violations of laws aimed at protecting animal health and American agriculture. APHRE negotiated a

pre-litigation settlement in the amount of \$6,250 for a violation of the Animal Health Protection Act relating to the interstate movement of cattle without the required interstate certificate of veterinary inspection. In November 2015, APHIS, along with the Centers for Disease Control and Prevention's (CDC) Division of Select Agents and Toxins presented training to the regulated select agent community regarding compliance with regulations and the roles and responsibilities of APHIS and the CDC.

To support plant health, APHRE initiated 57 cases; issued 11 Official Warnings; issued 18 pre-litigation settlements, resulting in the collection of \$101,926 in stipulated penalties; and obtained administrative orders assessing \$30,625 in civil penalties for alleged violations of laws aimed at protecting domestic plant health and American agriculture. APHRE and USDA's Office of Inspector General (OIG) collaborated in an investigation that culminated in a criminal conviction involving two individuals. One individual pled guilty to one felony count of making a false statement, and the other pled guilty individually to one misdemeanor count of falsifying a document in violation of the Plant Pest Act. Both were assessed a \$50,000 penalty and sentenced to serve probation for a term of five years. A case for counterfeiting two industry-issued certificates in violation of the Plant Pest Act led to an Administrative Decision and Order and assessing a penalty of \$20,000.

To support AQI activities, APHRE initiated 1,265 cases; issued 96 Official Warnings; and issued 400 pre-litigation settlements, resulting in the collection of \$426,026 in stipulated penalties. APHIS settled several large consolidated regulated garbage investigations with pre-litigation settlements, including one settlement for \$32,000 and another for \$40,000. In addition, the Agency settled two consolidated actions totaling \$2,200 in civil penalties.

APHRE also supported animal welfare and horse protection. With respect to alleged violations of the Animal Welfare Act (AWA), APHRE initiated 239 cases; issued 192 Official Warnings; issued 32 pre-litigation settlements resulting in the collection of \$189,400 in stipulated penalties; and obtained administrative orders assessing \$3.8 million in civil penalties. APHIS and Santa Cruz Biotechnology, Inc. entered into a consent decision to resolve alleged violations of the AWA for allegedly failing to maintain the basic standards of the AWA on multiple occasions. The consent decision indicated that the research facility was not admitting or denying that it had violated the AWA, included a provision for the facility to cease and desist from violating the AWA. The decision required the research facility to pay a \$3.5 million civil penalty, revocation of its dealer's license effective December 31, 2016, and agreement to submit a letter to cancel its research registration by May 31, 2016. Although the order permits the facility to use its dealer's license until December 31, 2016, the facility was not allowed to sell or use any blood, serum, antibodies or certain other products derived from live animals other than what was in its inventory after August 21, 2015, and must cease all sales when the revocation takes effect. The \$3.5 million civil penalty is the largest civil penalty assessed under the AWA, which was enacted in 1966, to set general standards for humane care and treatment that must be provided for certain animals that are bred for commercial sale, sold sight unseen (internet sales), exhibited to the public, used in biomedical research, or transported commercially.

In FY 2015, APHIS completed a comprehensive review and revision of the AWA penalty guidelines. The changes to the penalty guidelines address the recommendation made in the 2014 OIG report indicating that APHIS should revise the penalty guidelines to address justifications for violations resulting in serious animal injury or death and the use of good faith reductions for self-reported violations. In FY 2016, APHRE finalized and implemented revised AWA penalty guidelines.

APHIS initiated 438 cases; issued 956 Official Warnings; and obtained 33 administrative orders assessing \$20,400 in civil penalties and disqualified 21 individuals from participating in activities regulated under the Horse Protection Act (HPA). The Agency entered into a consent decision, which resolved multiple alleged violations of the HPA. APHIS filed two complaints against an individual alleging that on eight separate occasions between 2012 and 2014, the person entered for the purpose of showing, and/or showed eight different horses in horse shows, while the horses were sore and in violation of the HPA. The consent decision disqualified an individual for a period of six uninterrupted years from showing, exhibiting, or entering any horse in any horse show, exhibition, sale, or auction. APHIS obtained a decision and order assessing a five-year disqualification for a violation of the HPA against an individual who had previously been found to be in violation of the Act.

To support biotechnology, APHRE investigated a high-profile incident involving the detection of genetically engineered wheat at a research facility in Montana. APHIS confirmed that the wheat did not enter commerce, and

evidence suggested that the wheat volunteers, plants that grow from seeds and are not deliberately planted, most likely originated from earlier field trials at the research center.

2. Biotechnology Regulatory Services

APHIS balances a regulatory system that safeguards agriculture while fostering innovative research and development in the field of biotechnology. APHIS has a timely and predictable regulatory process that uses high quality, thorough, science-based reviews. Under the authority of the Plant Protection Act (PPA), APHIS oversees certain genetically engineered (GE) organisms that might pose a risk to plant health. APHIS' biotechnology regulations implement the Plant Pest provision of the PPA and, under these regulations, APHIS may put specific requirements on field testing, importation, and interstate movement of regulated GE organisms to protect American agriculture and other plants from the risk of damage from plant pests.

Authorizations

Depending on the characteristics of the GE organism, a developer files an application in the form of either a permit or a notification, referred to as an authorization. A permit is more restrictive than a notification, and is generally issued for GE organisms that may pose a greater plant pest risk. A notification is a streamlined authorization for GE organisms that are less likely to pose plant pest risks. In FY 2016, APHIS authorized 1,767 permits and notifications in 42 States (plus Puerto Rico and the Virgin Islands) for 153 different organisms.

Risk Assessment and Petitions

When biotechnology developers can provide scientific information that demonstrates their GE organism is not a risk as a plant pest, they can request APHIS to remove a GE organism from regulation. For example, they may request deregulation if they want to commercialize and/or grow the GE organism without APHIS' oversight. Before APHIS makes a regulatory decision, it conducts thorough scientific reviews and gathers data to determine if a new GE organism poses a risk to plant health. APHIS' reviews of the GE organism include analyzing both current, publicly available scientific information and the technical data provided by the applicant. When considering this request, APHIS completes a scientific plant pest risk assessment, as well as an environmental review in compliance with the National Environmental Policy Act. If APHIS determines a GE organism does not pose a plant pest risk, the Agency makes a determination of nonregulated status (deregulation), and the organism can be planted and moved without APHIS' oversight.

In FY 2016, APHIS reviewed and deregulated seven petitions: five corn varieties, one potato, and one apple. The cumulative total of APHIS deregulations is 124. In recent years, APHIS has identified and implemented solutions to improve the timeliness and predictability of the petition process while maintaining its high standard of scientific rigor and decision-making. APHIS completed the seven petitions in an average of 353 days, reducing the time by 416 days (from an average of 769 days in FY 2015), and exceeding our target of 460 days. APHIS continues to provide the public with opportunities to review and comment on both the petition request and the scientific assessments of the GE organisms in the *Federal Register*.

APHIS also has an "Am I Regulated?" (AIR) process that allows potentially regulated entities to ask APHIS whether an organism is a regulated article under current APHIS' biotechnology regulations before requesting an authorization for a specific activity. This process allows developers to provide the Agency specific information including scientific data, the technology used, and other information about the GE organism. APHIS evaluates the description of the product and informs the developer if the GE organism is or is not regulated by APHIS under its biotechnology regulations. APHIS publishes their responses to AIR letters on its website. In FY 2016, APHIS responded to 13 AIR inquiries.

Compliance and Inspections

APHIS ensures developers, growers, and others take the important steps to prevent unauthorized releases of regulated GE organisms. APHIS requires developers to comply with notification performance standards or permit requirements to help ensure the GE organisms are confined and do not persist in the environment. To ensure that

GE organisms meet standards outlined in the permit or notification, APHIS inspects fields, equipment, and other associated facilities. In FY 2016, APHIS and the States (authorized by APHIS) conducted nearly 800 site inspections, 55 of which were unannounced inspections. Approximately 97 percent of those inspected were in compliance with APHIS biotechnology regulations.

In recent years, APHIS has taken steps to strengthen its oversight of regulated GE field trials. In FY 2016, APHIS implemented an improved risk-based inspection selection process and expanded permit inspection oversight. APHIS also enhanced compliance program effectiveness by implementing a signature business process improvement for identifying and addressing late and missing planting reports. In addition, APHIS implemented a compliance incident response plan. APHIS used this plan to effectively manage the most recent wheat incident in Washington State. In FY 2016, APHIS implemented new permit requirements for wheat. APHIS now requires developers to apply for a permit for field trials involving GE wheat. The decision to require the more stringent permit process rather than the notification process provides added protection that GE wheat will remain confined during field trials.

Regulatory Changes

In FY 2015, following stakeholder feedback that the provisions of the rule were unclear, needed additional rigor, were far-reaching and overly restrictive, APHIS withdrew the 2008 proposed rule to update the Agency's biotechnology regulations. APHIS renewed its efforts to publish a new proposed rule by engaging stakeholders with a series of webinars to give the public a chance to provide input. APHIS received approximately 220,000 comments from webinars and in response to a public notice through the *Federal Register*. After considering those comments, APHIS published a Notice of Intent to prepare a programmatic environmental impact statement to support a new proposed rule. In FY 2016, APHIS reviewed public input submitted during the webinars, and the public comment period on the Notice of Intent. In FY 2017, the Agency expects to publish a draft programmatic EIS and the new proposed rule. With the new proposed regulation, APHIS aims to: 1) take advantage of nearly three decades of regulation and risk analysis of GE organisms to provide regulatory relief in areas where no risk to plant health can be identified; 2) incorporate the noxious weed authority granted to APHIS in the PPA (not previously incorporated in APHIS' biotechnology regulations); 3) minimize potential gaps in oversight; 4) regulate by specifically identifying and including all GE organisms that may pose plant pest or noxious weed risks; and 5) improve clarity and transparency of risk assessments.

Partnerships

Advances in science and technology have dramatically altered the biotechnology landscape, enabling the development of products not envisioned when the Coordinated Framework for the Regulation of Biotechnology (Coordinated Framework) was first established in 1986. Beginning in July 2015, APHIS, along with the Food and Drug Administration and Environmental Protection Agency, began the year-long process to update the Coordinated Framework to clarify current roles and responsibilities, develop a long-term strategy to ensure that the Federal biotechnology regulatory system is prepared for future products of biotechnology, and commission an expert analysis of the future landscape of biotechnology products to support these efforts. As part of the process, the three agencies held a series of stakeholder meetings to gather input on the development of these strategies and documents. On September 22, 2016, the coordinating agencies announced in the *Federal Register* for public comment the availability of two documents to further the objectives of modernizing the regulatory system for biotechnology products: a proposed Update to the Coordinated Framework; and a National Strategy for Modernizing the Regulatory System for Biotechnology Products. The documents are available for review on the Office of the President's website: <https://www.whitehouse.gov/blog/2016/09/16/building-30-years-experience-prepare-future-biotechnology>.

APHIS also works with international partners to enhance the coordination of regulatory approaches for the safe use of GE organisms and provides capacity building assistance to developing countries for the regulation of GE organisms. These activities promote U.S. exports of GE products by ensuring that trading partners understand and accept the U.S. system for regulating GE organisms. For example, in FY 2016, APHIS worked closely with Mexico and Canada on technical and regulatory biotechnology issues in bilateral, regional, and multi-lateral international venues. APHIS also meets with foreign visitors who are interested in understanding how the United States regulates

the safe use of biotechnology-derived organisms. These interactions include foreign visitors representing the press, politicians, government ministry officials, scientists, and consumer groups. In FY 2016, APHIS gave briefings to delegations from Bosnia, China, Costa Rica, France, Japan, South Africa, South Korea, and Mexico. In FY 2016, APHIS provided technical support to USDA's Foreign Agricultural Service, the U.S. Department of State, and other U.S. government agencies in outreach activities related to participation in the Meeting of the Parties to the Cartagena Protocol on Biosafety held in South Korea (currently 170 countries are Parties). This work is aimed at enhancing coordination of regulatory approaches and providing capacity building assistance for the regulation of GE organisms.

Selected Examples of Recent Progress – Emergency Management:

1. Emergency Preparedness & Response

The Emergency Preparedness and Response (EPR) program improves APHIS' capability to prevent, prepare for, respond to, and recover from animal and plant health emergencies. These emergencies range from small-scale incidents to catastrophic events. The EPR program develops strategies, policies, and procedures for incident management and response coordination that meet national and international standards.

The EPR's program goal is to respond to an animal health event within 24 hours from the time APHIS decides that it is appropriate to be involved in the response effort. The program develops and makes available to State animal health officials and industry partners guidance documents covering the major components of an animal health emergency response. The EPR program coordinates investigations and disseminates information about animal health emergencies. The program also participates in joint Federal, State, and local animal health and all-hazards test exercises to improve response plans and capabilities, and perform reviews after exercises or actual incidents. These reviews lead to corrective action plans that are used to update national guidance documents and help States enhance their response plans. In addition, the EPR program facilitates planning sessions with major commodity groups to develop business continuity plans to ensure the continuous movement of livestock products during an animal health emergency. The EPR program also maintains an animal health emergency reserve corps of private veterinarians and animal health technicians, and veterinary students. Effective preparation for and response to animal health events requires advance and continuous preparation, followed by training and exercises to enable a rapid response. This line item funds activities to enable APHIS to achieve a high state of readiness and be able to respond rapidly and effectively to emergency events, thus lessening the impact of those events on producers, consumers, taxpayers, and the overall economy.

The EPR program supports coordinators in each Federal Emergency Management Agency (FEMA) region for Emergency Support Function 11: Agriculture and Natural Resources (ESF#11). These coordinators work with State, Tribal, and local authorities and other Federal agencies to respond to agricultural health issues and support animal and agricultural emergency management. This program carries out functions outlined in the National Response Framework, which establishes how response efforts support State, Tribal, and local authorities during emergencies. In addition, APHIS provides technical support to FEMA for the care of pets and service animals during natural or man-made disasters. Further, in accordance with the *Public Health Security and Bioterrorism Preparedness Response Act of 2002*, this program regulates select agents or toxins that threaten animals, plants, or animal and plant products. The EPR program also supports the APHIS Emergency Qualifications System Dispatchers, who coordinate the delivery of emergency resources.

Preparedness, Partnerships, & Planning

In FY 2016, APHIS worked with FEMA to draft various national reports and annexes. Annually, the coordinators also worked with FEMA at the Regional Level and with the States' Departments of Agriculture to prepare and review documents to support emergency response to support the U.S. Department of Homeland Security's (DHS) Regional Catastrophic Planning Initiative. Also, in FY 2016, APHIS completed the ESF#11 Strategic Plan with the ESF#11 primary agencies (USDA's Food and Nutrition Service, the Food Safety and Inspection Service; and the U.S. Department of the Interior) and implemented it.

In FY 2016, APHIS continued to develop public-private academic partnerships to advance foot-and-mouth disease (FMD) response strategies and capabilities, including an FMD vaccine to control and eradicate an outbreak. As part of this effort, the Agency published a notice seeking a source for global FMD vaccine. With its cooperators, APHIS gathered information on the number of vaccine doses that would be needed under several scenarios, as well as hosted a workshop to discuss and refine the data to inform the recommendation for vaccine quantities needed in the National Veterinary Stockpile. In addition, the Agency worked through the Secure Food Supply to produce a draft document advising producers how to handle the movement of milk at the start of an FMD outbreak. The Secure Food Supply is a Federal-State-industry partnership designed to provide business continuity in the face of a foreign animal disease (FAD) outbreak. Further, APHIS produced multiple FMD ready reference guides and other guidance to their planning and response capabilities, particularly in the areas of surveillance and vaccination.

Also, in FY 2016, APHIS continued investing in the Zoo and Aquariums All Hazards Preparedness, Response, and Recovery (ZAHP) Center to identify gaps in emergency planning, build capabilities, share information and situational awareness, and coordinate and support captive wildlife issues in emergencies. The ZAHP Center is a centralized resource for disaster preparedness for the exotic animal industry. In addition, the Agency carried out a multi-State, multi-facility exercise to test the management of a highly pathogenic avian influenza (HPAI) outbreak in a zoo; and, participated in the Cascadia Rising Capstone Exercise (chairing the Pet and Animal Care Task Force), National Mass Care exercise, Columbia Nuclear Power Plant Ingestion Pathway Exercise, and the Vibrant Response 2016 (Department of Defense/FEMA nuclear detonation exercise). In addition, the Agency facilitated the Federal Animal Emergency Management Working Group meeting, and meetings with non-governmental animal emergency management partners to coordinate national response and recovery capabilities.

APHIS serves in a liaison capacity between State and local officials and exhibitors regulated by the Animal Welfare Act to enhance coordination on FAD preparedness initiatives. In FY 2016, these initiatives included, an appendix for the exotic animal industry to the Agency's FMD Preparedness and Response Plan; the development of a self-assessment tool for HPAI preparedness at zoos; and a Secure Zoo project that addresses the challenges that FADs pose to the managed wildlife community. APHIS continues to facilitate communication among representatives from State and Federal emergency management agencies, zoos, academia, and industry. These initiatives allow the Agency to reach sectors of the exotic animal industry that were not previously engaged.

Preparedness Training and Exercises

In October 2015, APHIS finalized an *Emergency Preparedness and Response Training/Exercise Strategy and Plan* for fiscal years 2016-2018. Comprehensive training and exercises provide vital practice for an animal disease incident. The Plan is designed to enhance the preparedness of APHIS and its partners to respond to livestock and poultry health incidents, as well as other hazards. At the beginning of each fiscal year, APHIS hosts a training and exercise workshop with its partners to update the Plan by translating the Agency's preparedness strategic goals and priorities into specific activities, and to coordinate training and exercise activities. In FY 2016, there were 78 events (66 trainings and 12 exercises) aligned with APHIS' training and exercise priorities and objectives. This represents an increase of 25 events from FY 2015, resulting in enhanced response capabilities of additional personnel. In addition, APHIS, through the training and exercise program, hosted a tabletop exercise with the Multi-State Partnership for Security in Agriculture (15 States are charter members) to determine how resources might be requested and allocated during an expanding animal health incident.

In FY 2016, ESF #11 Coordinators in the ten FEMA regions and at the national level participated in the planning and execution of FEMA and State exercises ranging from discussion-based tabletop exercises to drills providing cross-functional coordination and assistance. These included Cascadia Rising, Food, Agriculture, and Veterinary Response Exercise FMD, Vibrant Response, and Diablo Canyon exercises. Other exercises included FEMA regional as well as State-level exercises. In September 2016, the ESF #11 staff held National Level Training with all partner agencies and APHIS programs.

Response Efforts and FAD Investigations

In FY 2015, APHIS developed an FAD Preparedness and Response suite of guidance documents. APHIS updated this Plan in FY 2016, with lessons learned from the FY 2015 HPAI outbreak. Also, in FY 2016, the Agency

established a corrective action plan to monitor success in addressing stakeholder and responder recommendations. The emergency outbreaks experienced in recent years as well as follow-on activities such as addressing the recommendations demonstrate the critical need for this preparedness and response program.

In FY 2016, FEMA activated ESF #11 Coordinators for five responses. These included Louisiana Severe Flooding (twice), South Carolina Flooding, Hurricane Joaquin, and the Valley and Butte Fires. Also in FY 2016, APHIS' EQS Dispatchers dispatched 512 responders to 29 APHIS incidents or events. The Dispatchers worked with the Incident Coordination Group, and program contacts, to identify personnel and mobilize resources within the timeframes requested by the Incident Commanders.

Modeling

In FY 2016, APHIS continued to address priority challenges by developing models to advance the Agency's understanding of disease epidemiology for the purposes of emergency preparedness and management. The Agency characterized swine shipments by quantifying the size, demographic characteristics (age, sex), and purpose of shipments described in the Interstate Certificate of Veterinary Inspection (ICVI) data from 2010 and 2011; analyzed shipment patterns of swine in the United States using network analysis; and compared the relationship between swine shipment information described in ICVI data with additional datasets.

Safeguarding of Select Agents

APHIS and the Centers for Disease Control and Prevention (CDC) jointly manage the Federal Select Agent Program (FSAP), which oversees the possession, use, and transfer of biological select agents and toxins that have the potential to pose a severe threat to public, animal or plant health or to animal or plant products. Pursuant to the *Public Health Security and Bioterrorism Preparedness Response Act of 2002*, any individuals or entities possessing, using, or transferring select agents or toxins must register them with APHIS (if the agent affects animal or plant health) or the CDC (if the agent affects human health). The FSAP administers the select agents and toxins regulations in close coordination with the Federal Bureau of Investigation's Criminal Justice Information Services. Facilities must meet safety requirements, including biosecurity and physical security measures that ensure the safety and security of the agents and toxins and to prevent their release. APHIS and CDC regularly inspect facilities that use or transfer these agents to ensure compliance. They also inspect each other's facilities to eliminate any potential conflicts. APHIS' Agriculture Select Agent Services (AgSAS) has primary responsibility for ensuring that all non-compliances identified at these facilities are addressed appropriately, and for initiating any further administrative or other enforcement actions that are needed. In addition, AgSAS began meeting with the Department of Homeland Security in FY 2016, to plan the select agent registration of the National Bio and Agro-Defense Facility, which is being constructed in Manhattan, Kansas. This facility will be the largest laboratory working with large animals in the country and will require significant advance planning, inspection, and review of documentation until it is fully operational.

In FY 2016 (considering data received by September 30, 2016), 39 entities that contain select agents covered under APHIS authority registered with AgSAS and 44 entities that contain these agents registered with CDC. AgSAS received 413 amendments and processed 354 amendments, including 25 renewals of registration. Of these 354 amendments, 130 were Administrative Amendments (personnel addition or removal, and role changes) and 5 were technical amendments which required on-site inspections. The remaining 219 amendments were technical amendments that did not require inspections. Approximately 75 percent of the 413 amendments were fully completed and closed in FY 2016. The administrative amendments (for persons to have access to select agents) require Security Risk Assessments, which are conducted by the Federal Bureau of Investigation. AgSAS also processed 75 transfer requests for select agents. In addition, AgSAS conducted 77 inspections as follows: 35 renewal inspections, 27 unannounced verification inspections, 7 unannounced compliance inspections, 5 inspections involving amendments, and 3 inspections for movement permits for Plant Protection and Quarantine and organisms or vectors at the request of APHIS district offices. APHIS issued corrective letters for minor violations and more serious noncompliance issues found during the inspections. APHIS also conducted emergency inspections for five incidents involving the potential release of select agents. The Agency conducted joint inspections with CDC, Department of Homeland Security, and the Department of Defense, where applicable.

In 2014, six incidents at CDC laboratories involved the possible release of select agents outside the laboratories with potential exposure to laboratory workers or animals. The incidents led to Congressional inquiries and the formation of several Federal working groups to review gaps in the select agent regulations and identify areas for improvement of FSAP. In FY 2016, APHIS worked with CDC to institute many changes in FSAP operations and policies in response to these reviews. These changes have led both agencies to increase their engagement with the regulated community to improve customer service and enhance the inspections process, strengthen FSAP's regulatory oversight, and increase FSAP's transparency.

These improvements included regulatory changes to address the inactivation and removal of select agents, improved guidance for developing biosafety plans for registered entities to be used in the development of biosafety plans, and the requirement that registered entities conduct annual exercises to evaluate the effectiveness of incident response plans. Regarding the regulatory changes, APHIS published a proposed rule in January 2016 to strengthen the select agents program. The rule and related guidance clearly define inactivation and identify standards for researchers and the regulated community to ensure a more robust process for the oversight and review of inactivation procedures by laboratories. The Agency has addressed public comments on the proposed rule and has drafted a final rule, which is undergoing clearance. In addition, FSAP began updating the form that registered entities use to report the theft, loss, or release of select agents or toxins. This will allow for improved collection of data and information on incidents including inactivation issues.

Also in response to the Federal reviews, FSAP completed its first annual report in FY 2016 on aggregate program and inspection data to provide increased transparency and understanding of the program. In addition, FSAP began issuing interim inspection reports to entities to provide more timely feedback after select agent inspections, and when necessary, Immediate Action Preliminary Reports to highlight serious violations needing urgent action. FSAP also began sharing regulatory policies, guidance, and intended actions with the regulated community before finalizing them. Sharing this information with the regulated community gives them an opportunity to provide input. Finally, APHIS' hired four new inspectors in FY 2016 to enhance its small field inspection force and to ensure that the Agency has the capacity to perform inspections in the event of unexpected incidents.

Biosecurity

PestLens is APHIS' phytosanitary early-warning system that collects and distributes biological information on exotic plant pests. This information involves distribution, host range, spread history, and control measures. PestLens provides a web-based platform for documenting safeguarding decisions and resulting actions, and reports newly emerging pest information through weekly e-mail notifications. The articles are stored in the PestLens database to enable subject matter experts to make informed safeguarding decisions. In FY 2016, PestLens added more than 100 new pests to the Agency's Global Pest and Disease Database.

APHIS is a member of the Federal interagency biosurveillance community, and participates on the Biosurveillance Indications and Warning Analytic Community steering committee to promote greater understanding of agricultural threats across the Federal interagency, particularly providing context and characterization for threats that may also affect human health, and/or the U.S. economy. Through this interaction, APHIS leverages tools used by all partners to augment other APHIS global biosurveillance initiatives. In FY 2016, APHIS hosted the first annual Bio-surveillance Analyst Knowledge Exchange with other members of the Bio-surveillance Indications and Warning Community. This exchange enabled front line bio-surveillance analysts to share knowledge with their peers across the bio-surveillance partnership. More than 70 government officials participated in this event. In September 2016, an APHIS official attended the National Biosurveillance Integration Centre One Health Workshop to learn about tools that can be used for biosurveillance and communication plans. The workshop was designed to improve partnerships within USDA, with the Centers for Disease Control and Prevention, and with national public health organizations. It helped attendees identify the gaps and challenges of One Health Surveillance, the State-level Best Practices for One Health Surveillance, and the essential networking required for appropriate response and communication for an effective One Health response.

SAFE TRADE AND INTERNATIONAL TECHNICAL ASSISTANCE

Current Activities: APHIS monitors plant and animal health throughout the world and uses the information to set effective agricultural import policies to prevent the introduction of foreign plant and animal pests and diseases. APHIS and the Department of Homeland Security cooperate to ensure that these policies are enforced at U.S. ports of entry. APHIS also develops and conducts pre-clearance programs to ensure that foreign agricultural products destined for the United States do not present a risk to U.S. agriculture. The Agency engages in cooperative programs to control pests of imminent concern to the United States and to strengthen foreign plant protection and quarantine organizations. The Agency also manages and resolves sanitary (animal) and phytosanitary (plant) trade barriers.

APHIS' negotiates animal and plant health certification requirements, assists U.S. exporters in meeting foreign regulatory requirements, ensures requirements are proportional to risk without being excessively restrictive, and provides any necessary technical information to support the safety of U.S. agricultural products destined for foreign markets.

Selected Examples of Recent Progress in Safe Trade:

1. Agriculture Import/Export

APHIS works with other Federal agencies, States, foreign governments, industry, and academia to protect U.S. agriculture while facilitating the safe trade of animals and animal products. APHIS' animal health experts ensure that U.S. import requirements safeguard U.S. livestock health and negotiate requirements for the export of U.S. animals and animal products worldwide. These requirements are based on compliance with international standards, sound scientific principles, and fair trading practices for animals and animal products. Moreover, APHIS sets quarantine, testing, and other requirements under which animals and animal products can be imported or exported. These requirements help ensure that global markets can be accessed, expanded, or maintained with little or no risk to U.S. animal production and human health.

APHIS also conducts activities related to the 2008 Farm Bill amendments to the Lacey Act, which prohibit the importation of any plant, with limited exceptions, that are taken or traded in violation of domestic or international laws. The Act requires a declaration for imported shipments of most plants or plant products. A 2012 study by the United Nations Environmental Programme estimated the value of illegal logging, including processing, to be between \$30 to \$100 billion dollars, or 10 to 30 percent of the global wood trade. The Lacey Act amendments are designed to help combat this illegal logging by encouraging importers to research their supply chains and be aware of the laws governing products they purchase in other countries. APHIS' role is to issue regulations, provide guidance to importers regarding the declaration, perform compliance checks, provide enforcement agencies with declaration information to assist their investigations, and house documents.

Imports

To facilitate imports, APHIS evaluates the animal health status of regions that wish to export animals and/or animal products to the United States. This evaluation process minimizes the risk of introducing animal diseases through importation. In FY 2016, APHIS completed several evaluations and published regulatory actions based on these evaluations in the *Federal Register*. These include a proposed rule to allow the importation of ovine meat from Uruguay under certain conditions, a proposal to recognize the animal health status of Malta with respect to five contagious animal diseases, an evaluation of the cattle fever tick status of a region of Chihuahua, Mexico, and a decision concurring with the World Organisation for Animal Health risk designations of 14 regions for bovine spongiform encephalopathy (BSE).

APHIS' science-based review is consistent with international trade requirements. In addition to detailed risk analyses of the regions, the Agency conducted eight site visits in Mexico and Italy to confirm that the regions' surveillance, prevention, and control measures are sufficient to minimize the likelihood of an introduction of classical swine fever, swine vesicular disease, bovine tuberculosis and bovine brucellosis into the United

States. APHIS recognized the animal health status of Croatia as free of foot-and-mouth disease, rinderpest, and swine vesicular disease, as well as low risk for classical swine fever. In addition, APHIS added Lebanon to the list of regions affected with highly pathogenic avian influenza, and added the Republic of Korea to the list of regions affected with contagious equine metritis, restricting imports from those regions.

APHIS addressed import issues related to live animals and animal products arising at the ports, especially in regards to facilitating cattle imports from Mexico. The Agency is working to improve traceability of imported animals by implementing the use of identification scanners at the Mexican border that will upload ear tag information into our traceability databases. APHIS also continues to work with Mexico in implementing a joint strategic plan to control and eradicate bovine tuberculosis in both countries. In addition, APHIS finalized an import protocol for feeder cattle from Australia, and proposed a rule to amend the regulations on the importation of sheep, goats, and certain other ruminants, including animal products from these species. This action would remove BSE-related restrictions on sheep and goats and most of their products, and would add import restrictions related to transmissible spongiform encephalopathies for certain wild, zoological, or other non-bovine ruminant species. In FY 2016, APHIS issued 14,647 import permits for live animals, animal products, organisms, and vectors. These include new permits, renewals, and amendments. APHIS processed an additional 579 permits for animal products that were placed on hold at the port of entry.

APHIS continues to ensure that import regulations are effective and science-based, and to work with U.S. businesses and importers to facilitate safe trade. APHIS developed a method to facilitate the import of a drug used to treat mast cell tumors in dogs. This drug contained porcine origin products, and APHIS coordinated with the Food and Drug Administration and a patient advocate to resolve the situation and allow safe trade, alleviating the distress of many pet owners who rely on this drug. APHIS worked to develop more regulatory flexibility, and through this process finalized three actions: (a) exempt imports of lactose and lactose derivatives from foot-and-mouth disease restrictions as they were determined to be low risk; (b) exempt Australia and New Zealand from requirements for meat export certificates for beef to expedite the process of electronic certification; and (c) exempted regions from having to present original certificates for BSE and edible beef products. Each of these regulatory changes allow U.S. importers to streamline processes and reduce costs associated with importing products from these countries. Additionally, on behalf of the U.S. importer, APHIS negotiated with the United Kingdom to safely import wild game bird meat based on their surveillance and veterinary controls for highly pathogenic avian influenza outbreaks. APHIS also worked with the Ornithological Council to address permitting issues associated with hand-carried wild bird specimens, and to obtain input and suggestions on clarification of the APHIS website.

Exports

In FY 2016, the value of new or maintained export markets for animals and animal products was more than \$2 billion (Foreign Agricultural Service). To open, re-open, and maintain U.S. access to worldwide export markets, APHIS negotiates science-based conditions with trading partners for various commodities that protect their country while also facilitating trade. In FY 2016, APHIS negotiated or re-negotiated 100 export protocols for animal products (5 new markets, 32 expanded markets, and 63 retained markets). This includes retaining market access for the export of pet food, chews and treats to Canada (valued at \$548 million annually) after new requirements were imposed by the Canadian Food Inspection Agency, and new market access for pork, beef, and poultry valued at \$75 million annually. APHIS negotiated 143 export protocols for live animals (49 new or reopened markets, 68 retained markets, and 26 expanded markets), including new markets for cattle to Colombia, India, Paraguay, and Venezuela. APHIS conducted voluntary inspections of more than 695 U.S. manufacturing facilities to maintain, expand, or open export markets in many countries, including Australia, Canada, China, the European Union, Indonesia, Malaysia, Mexico, Peru, and Turkey. APHIS participated in industry stakeholder meetings, provided technical support for World Trade Organization cases, and attended bilateral trade meetings with multiple countries. APHIS also developed information packages and questionnaire responses from various countries to maintain, expand, or open export markets.

The notifiable avian influenza outbreak in 2015 significantly impacted the U.S. exports of poultry and poultry products. APHIS remains actively engaged with many countries to encourage removal of these restrictions. During FY 2016, APHIS' efforts resulted in the lifting of restrictions by 22 countries. This includes removal of restrictions

on poultry meat and table eggs by Saudi Arabia, whose market share of more than \$26 million had decreased by 56 percent compared to the year before the outbreak.

In FY 2016, APHIS also refocused efforts in eliminating remaining BSE barriers. A total of 12 countries have removed their BSE restrictions on U.S. beef, including high priority markets in Saudi Arabia (estimated value of re-opening this market is \$100 million for the first 5 years) and South Africa. APHIS also developed an export verification program and export health certificate to obtain market access for the export of tallow for industrial use to China.

In FY 2016, the United States and South Africa resolved long standing animal health issues and finalized agreements on poultry, beef, and pork. This represents a significant market opening for all three commodities and the culmination of a prolonged, coordinated interagency effort. APHIS was a key partner in this effort.

APHIS also increased the number of certificates issued electronically this year by expanding the system's capabilities. APHIS added digital signature capabilities and is working on establishing bilateral pilot projects with Mexico and expansion of the ongoing project with Canada to allow or extend exports with digitally issued and signed certificates.

Lacey Act

Effective April 2016, more than 90 percent of Lacey Act declarations are now being filed using the Department of Homeland Security's Customs and Border Protection's (CBP) newly implemented Automated Commercial Environment (ACE) system. Since FY 2015, APHIS has been working with CBP, as well as the trade community, to complete the development of fundamental business, technical, and software processes for electronically filing Lacey Act declaration information using the new International Trade Data System/ACE system. This activity is part of a government-wide effort to streamline export and import processes for U.S. businesses under a "single window" filing process. In FY 2016, APHIS received approximately 450,000 Lacey Act declarations, including those received through CBP, APHIS' electronic filing system, and on paper. ACE alerts importers of specific Lacey Act requirements associated with imported product types, and has reduced unnecessary filing by allowing importers to incorporate information from several entries to a single entry. Also, in FY 2016, APHIS conducted two webinars and participated in over 20 outreach events to increase connections with the trade community and to enhance stakeholder compliance with the Lacey Act import declaration requirements. APHIS worked with importers to clarify and establish requirements for Lacey Act declarations for timber and timber products admitted into U.S. foreign trade zones (areas near ports of entry where imported goods are not subject to tariffs during storage, manufacturing, and exhibiting processes) and into bonded warehouses through numerous meetings and outreach events with the trade community. Additionally, APHIS continued to work with its counterparts in other countries to establish cooperative relationships regarding ways to combat illegal logging and other activities the Lacey Act is designed to reduce.

2. Overseas Technical & Trade Operations

The Overseas Technical and Trade Operations (OTTO) program is a vital part of the U.S. Government's efforts to support agriculture and expand U.S. exports. The OTTO program prevents foreign agricultural pest and disease threats to the United States, eliminates unfair trade barriers, and establishes science-based international standards for trade, as well as engages with other Federal agencies, foreign governments, and international organizations dedicated to the same goals. Specifically, APHIS ensures the free flow of agricultural trade and works to support a healthy and profitable agricultural industry. Specifically, we use our technical expertise in animal and plant health to resolve sanitary and phytosanitary (SPS) issues that affect opportunities for U.S. producers and allow U.S. companies to be competitive in international trade. The Agency also collaborates with USDA's Foreign Agricultural Service, the Office of the U.S. Trade Representative, and other technical agencies to provide a coordinated effort on trade issues that affect U.S. producers.

To strengthen APHIS' ability to quickly respond to trade issues, the Agency has scientists, including veterinarians and entomologists, stationed throughout the world to assure collaboration on animal and plant health issues with their foreign counterparts in support of U.S. exports. APHIS has staff in more than 30 countries, including offices in

Belgium, Brazil, China, Colombia, Egypt, India, Japan, Korea, Mexico, and Taiwan. The Agency is critical in fostering the free flow of trade by working to remove unjustified SPS barriers impeding U.S. exports. SPS barriers are those involving both animal health and plant health. Examples of FY 2016 successes include reopening China's markets to certain poultry products worth \$98 million, opening new markets of hay and straw to Denmark valued at \$5 million annually, retaining markets of hides and bone chips to the European Union worth \$25 million, and reopening the market for the largest citrus producing county in California to send citrus to China worth \$25 million per year. An example of APHIS' success in reducing SPS barriers to trade is the effort to eliminate restrictions on beef, animals, and other products due to three cases of bovine spongiform encephalopathy (BSE) or "mad cow" disease. In 2013, the World Organisation for Animal Health (OIE) recognized the United States as negligible risk for transmitting BSE. However, some countries still maintained restrictions on U.S. beef but APHIS continued to work with those countries. A significant success in this regard occurred in August 2016, when Brazil agreed to allow access to U.S. beef and beef products for the first time since 2003. This market is worth a potential \$5 million each year. Overall, our collective efforts in 2016, resulted in eliminating BSE barriers in 11 countries, including the lifting of live cattle restrictions maintained by Brazil, Colombia, and Venezuela and the lifting of a ban on U.S. fresh beef to South Africa. These and other successes removed restrictions to U.S. beef and beef products resulting in an additional \$100 million in potential exports in FY 2016.

Even for markets that are open to U.S. agricultural products, APHIS must continually address issues to keep trade flowing smoothly. APHIS works with foreign counterparts to clarify or streamline certification requirements making it easier and less costly for U.S. exporters to move their products overseas. When shipments are held up at foreign ports, APHIS negotiates the overseas process to get products moving again. The exchange of technical and scientific information can often convince an importing country that the risk associated with imported products is less than had been perceived or can be safely addressed through risk mitigation measures. APHIS successfully secured the release of more than 200 shipments worth \$20 million in FY 2016. These detained shipments ranged from lemons to Japan to bovine genetic material to Israel.

In addressing SPS barriers to trade, APHIS uses its strong scientific base and team of technical experts based in the United States and abroad to advocate on behalf of U.S. agriculture. These scientists build relationships with counterparts and use scientific principles to make the case for American agricultural exports and explain to foreign officials why U.S. commodities are safe to import. These conversations take place in ongoing, technical bilateral meetings and in multilateral fora. APHIS supports U.S. Government efforts to take full advantage of existing and proposed free-trade agreements by discussing ongoing restrictions based on animal and plant health with countries that seek to reduce tariffs and other impediments to trade.

Building relationships in emerging markets often involves field visits, or training of foreign government officials to build their capacity to put in place scientifically sound SPS requirements. In FY 2016, APHIS educated more than 500 foreign officials about the U.S. regulatory process by hosting them during 48 visits, and completed 141 requests received for subject matter expertise, trainings, and other outreach-related activities. For example, APHIS worked with the Defense Threat Reduction Agency to sponsor a group of veterinarians from Cameroon, Jordan, Iraq, and Tanzania for an International Transboundary Animal Disease course that focused on methods for surveillance and monitoring of diseases such as foot-and-mouth disease and African swine fever. APHIS also sponsored training for 21 international participants to a Plant Health Systems Analysis Course, with participants from 19 different countries, including Cambodia, Serbia, and Uruguay. The course addressed methods and systems for plant pest and disease exclusion and prevention, detection, mitigation, preparedness and response, as well as trade facilitation and export certification. Providing courses in animal and plant health surveillance and emergency response to participants from other countries is designed to help other countries increase their regulatory capacity, which over the long term, will help prevent the trans-national spread of serious pests and diseases as well as increase other countries' ability to engage in safe agricultural trade.

The key to a successful trading environment is ensuring that our agricultural exports can compete in the world market, which means ensuring that the same rules apply to countries around the world. APHIS emphasizes the use of scientific principles as a basis for international trade decisions and works with international standard setting bodies such as the OIE and the International Plant Protection Convention (IPPC) to encourage other countries to follow this model. By gaining support for scientific-decision-making internationally and following international standards when considering what can be imported into the United States, APHIS increases U.S. agricultural exports.

For example, using OIE Highly Pathogenic Avian Influenza (HPAI) Regionalization concepts, APHIS retained markets threatened or lost due to outbreaks of HPAI during 2016, by organizing responses to individual countries' concerns about HPAI outbreaks and followed up with information that kept some trading partners, such as the European Union, from taking adverse actions or Korea from banning U.S. poultry indefinitely.

Using the guidelines and standards of the IPPC, APHIS was able to open new markets and maintain existing access that were facing phytosanitary import challenges. Examples include U.S. apricots to Australia, U.S. blueberry plants to Kenya, and U.S. chickpeas to India. APHIS conducted targeted outreach to large markets for U.S. corn following reported detections of *Xanthomonas vasicola pv. vasculorum*, helping to allay phytosanitary concerns and prevent disruptions of U.S. corn exports.

In FY 2015, APHIS began comprehensive succession planning of its workforce, with special emphasis on its Foreign Service cadre. This recruitment and developmental process emphasizes applicants' animal and plant science backgrounds, focusing on increasing new officers' knowledge of all APHIS mission areas, as well as increasing cooperation with other international partners, such as USDA's Foreign Agricultural Service. The process further develops their diplomatic, cross-cultural, and leadership skills. APHIS brought in a class of eight Foreign Service trainees beginning in FY 2015, and a second class of nine in FY 2016, to augment current overseas staff (many of whom are eligible for retirement in the next five to ten years) and help ensure that APHIS has trained staff to support U.S. exports and overseas animal and plant health programs. In addition, APHIS developed a process to evaluate the location of its overseas offices and to determine the most effective way to support the Agency's mission. These efforts will strengthen APHIS' ability to address SPS and other issues overseas in traditional and emerging markets, maintaining a more consistent overseas presence.

Agricultural trade is essential for the U.S. export market, and may be subject to costly disruptions from animal and plant health barriers. Technical trade, capacity building, and regulatory activities support export opportunities to U.S. producers while providing fruit, vegetables, and animal protein sources to international markets. APHIS will continue to cultivate international trade opportunities for America's animal and plant products while ensuring that U.S. Agriculture is safeguarded from pests and diseases.

ANIMAL WELFARE

Current Activities: The Agency conducts regulatory activities to ensure the humane care and treatment of certain animals and horses as required by the Animal Welfare Act of 1966 as amended (7 U.S.C. 2131-2159), and the Horse Protection Act (HPA) of 1970 as amended (15 U.S.C. 1821-1831). These activities include inspection of certain establishments that handle animals intended for research, exhibition, wholesale pet trade, or transported in commerce. APHIS places primary emphasis on inspection of facilities, records, investigation of complaints, inspection of problem facilities, and training of inspectors. APHIS also administers the HPA, as amended, which prohibits the showing, sale, auction, exhibition, or transport of sore horses. Program personnel attend and monitor certain horse shows to prevent this cruel act of soring from occurring.

Selected Examples of Recent Progress in Animal Welfare:

1. Animal Welfare

APHIS' Animal Welfare Program has the unique Federal role of ensuring the humane care and treatment of animals covered by the Animal Welfare Act (AWA) through inspection, education, and enforcement efforts. Fifty years ago, in 1966, the AWA was signed into law. Since that time, APHIS, acting through the Animal Welfare Program and its predecessors, has safeguarded and protected the more than 2 million animals used in research, exhibition, and the pet trade as well as those transported in commerce. In FY 2016, the program oversaw the 8,354 licensees and registrants associated with 10,730 facilities.

Licensing Activities

The AWA requires all facilities that use animals regulated under the Act to obtain a license or registration with APHIS. Prior to issuing a license, APHIS works closely with potential licensees to ensure that applicants understand the requirements of the AWA regulations and standards, and will be able to maintain compliance after obtaining a license from the Agency. The Agency develops individualized materials and presentations to focus on specific aspects or issues at each facility, as well as conducts up to three visits to a facility prior to issuing a license. To obtain a license, APHIS must find the facility to meet compliance standards by the third visit. In FY 2016, APHIS conducted 1,107 pre-licensing inspections, and issued 1,030 new licenses. The Agency determines on-going compliance by conducting unannounced inspections within three months of issuing the license. At the first unannounced inspection, 98 percent of these newly licensed facilities were in substantial compliance, with no documented direct, critical, or repeat AWA citations on the inspection report.

During 2016, APHIS dedicated resources to improving processes and procedures, thereby improving the program's ability to effectively and efficiently carry out its mission. APHIS conducted a review of the application processes required of AWA applicants. APHIS has refined the processes by redesigning communications to reduce burden on new applicants, as well as allowing applicants to submit approved revisions to initial applications through less costly and more efficient processes; revamping fee notifications to promote consistency and reduce errors involving fee calculations; investing in a phone system that will connect applicants with the appropriate staff in a more timely and efficient manner; and, creating a system for distribution of work to build continuity of service and balance workload. As a result of these changes, in FY 2017, APHIS anticipates 90 percent of new applications will be completed and sent to inspectors for pre-license inspections within 10 business days from receipt of initial application, and 90 percent of all new certificates will be issued within five days of receipt of a fully compliant pre-license inspection report.

For all licensed and registered facilities, APHIS inspectors perform unannounced inspections to verify continued compliance with the AWA. During inspections, Agency officials examine and inspect all areas of animal care and treatment covered under the AWA. The Agency reviews the animals, premises, facilities, husbandry practices, program of veterinary care, records, and animal handling procedures. In FY 2016, APHIS conducted 9,226 inspections and found 96 percent of all facilities were in substantial compliance with the AWA.

For those facilities struggling to be in or remain in compliance with the AWA, APHIS conducts in-depth, root cause analysis of the facility, works with the licensee to develop a tailored plan to address the non-compliances, and provides supplemental education to employees. Since 2012, 68 facilities have participated, with 17 new facilities in FY 2016. For those participating facilities, the Agency helped increase compliance rates by 53 percent at the third routine inspection.

In support of USDA Agricultural Research Service's (ARS) efforts to promote animal welfare and establish the fully functioning Institutional Animal Care and Use Committees at its animal research facilities, APHIS has registered 36 ARS research facilities under the AWA, completed 35 pre-compliance visits to assess welfare conditions at ARS research facilities, and in FY 2016 conducted 1 unannounced inspection. In FY 2017, APHIS will continue to monitor the health and welfare of animals housed at ARS facilities through the use of our unannounced inspection process.

Enforcement Activities

In FY 2016, the Agency found approximately 96 percent of all regulated entities in substantial compliance with the AWA. However, when APHIS inspectors discover conditions or records that are noncompliant with the regulations, the Agency establishes a deadline for corrective action and increases frequency of unannounced inspections to determine whether the facility made the necessary modifications. Continued noncompliance may warrant an investigation that can result in sanctions ranging from monetary penalties to suspension or revocation of the facility's license.

With respect to alleged violations of the AWA, the Agency initiated 239 cases; issued 192 Official Warnings; issued 32 pre-litigation settlements resulting in the collection of \$189,400 in stipulated penalties; and obtained administrative orders assessing \$3.8 million in civil penalties. APHIS and Santa Cruz Biotechnology, Inc., entered into a consent decision to resolve alleged violations of the AWA for allegedly failing to maintain the basic standards of the AWA on multiple occasions. The decision required the research facility to pay a \$3.5 million civil penalty, agreement to submit a letter to cancel its research registration by May 31, 2016, and revocation of its dealer's license effective December 31, 2016. The \$3.5 million civil penalty is the largest civil penalty assessed under the AWA, which was enacted to set general standards for humane care and treatment that must be provided for certain animals that are bred for commercial sale, sold sight unseen (internet sales), exhibited to the public, used in biomedical research, or transported commercially.

Outreach/Stakeholder Activities

APHIS' Center for Animal Welfare serves as a national resource for policy development and analysis, supports compliance efforts through non-regulatory methods such as education, training, and outreach to stakeholders to convey critical and current animal welfare information, and reviews and promotes science and technology related to improving the welfare of animals. The Center maintains a team of animal welfare specialists to conduct additional visits to regulated facilities with specialized species. In FY 2016, these specialists provided more than 300 consultations, and conducted 30 visits to support the compliance inspection process.

APHIS's Animal Welfare Program continued to place emphasis on public outreach and education. The following are examples of efforts using non-regulatory solutions to promote animal welfare:

- Launching two online, public training modules to promote compliance with respect to breeding and dealing in guinea pigs, hamsters, and dogs;
- Publishing a best practices document for dog breeding facilities to prevent and control the spread of *Brucella canis*, a bacteria commonly found in breeding kennels that causes significant reproductive issues;
- Formalizing and communicating to stakeholders the Agency policy regarding the use of teachable moments to document minor non-compliant items when a facility is willing and able to correct quickly, the issue is not impacting the welfare of any animal(s), and the issue has not previously been cited. The use of this approach has been incorporated in the APHIS Animal Welfare Inspection Guide;
- Issuing three policy statements clarifying the conditions for the safe and humane handling of neonatal nondomestic cats, easing the process by which regulated entities may use microchips to identify their animals, and clarifying the regulatory provisions applicable to New Guinea Singing Dogs and Dingoes;
- Attending 28 conferences and seminars to educate and discuss welfare issues involving dogs, and collaborated with the Missouri Department of Agriculture to hold a Canine Care workshop with 115 attendees to discuss areas that will improve the health and welfare of dogs and the third Annual USDA Breeder Leader Forum with representatives from 15 States designed to improve the cooperative relationship with State dog breeder organizations; and
- Collaborating with Purdue University's Center for Animal Welfare on science-based studies involving housing, husbandry, and socialization of dogs.

Finally, in 2016, APHIS completed and released the 2016-2020 strategic plan that describes the goals and objectives for promoting the humane treatment of vulnerable animals regulated under the AWA. The complete strategic plan can be found at: https://www.aphis.usda.gov/animal_welfare/hp/downloads/strategic_plan/AC-Strategic-Plan-2016-2020_092716.pdf.

Regulatory Changes

APHIS is proposing to amend the AWA regulations to establish de minimis thresholds for businesses breeding, selling or exhibiting regulated animals. Businesses considered to be de minimis are of a sufficiently small size to not warrant Federal licensing and inspection for animal welfare. On August 4, 2016, APHIS published the proposed rule that defines de minimis and measures business size using criteria including the number of breeding females maintained, number of animals exhibited, and number of times per year that an animal is exhibited. This proposed rule would also amend the regulations to exempt owners of household pets that are exhibited occasionally, generate

less than a substantial portion of income, and reside exclusively with the owner. The comment period closed on November 2, 2016. APHIS received 28 response to the proposed changes.

In FY 2016, APHIS also published a proposed rule to amend standards concerning the humane handling, care, treatment and transportation of marine mammals in captivity, as well as update regulations concerning "swim-with-the-dolphin" programs. APHIS' goal with this rule is to ensure that USDA licensees and registrants safeguard their animals under practical and enforceable standards. During the 90-day comment period that ended May 4, 2016, APHIS received 5,344 comments related to the proposed changes. APHIS is reviewing the comments received.

In FY 2017, APHIS will continue to evaluate whether to revise the AWA regulations governing the handling of (and public contact with) dangerous animals. In 2012, APHIS received a petition request that the Agency ban all public contact with dangerous animals exhibited under the AWA. The Agency published the petition and received more than 15,000 comments. In June 2016, APHIS reopened the comment period to seek additional stakeholder input regarding additional questions that will help the Agency better determine its course of action. In support of the review, APHIS held three stakeholder listening sessions in an effort to gather targeted feedback. APHIS will review comments received via the listening sessions, as well as comments received on the *Federal Register*.

2. Horse Protection

Since 1970, APHIS has enforced the Horse Protection Act (HPA), a Federal law aimed at ending the cruel and inhumane practice of soring and preventing unfair competition by making it unlawful to show, sell, or transport sore horses. Soring is a practice in which certain gaited breeds of horses are subjected to chemical and/or mechanical irritants to enhance their gait and provide a competitive advantage in shows, exhibitions, sales and auctions. This accentuated gait is used primarily in training Tennessee Walking Horses, racking horses and related breeds to provide a competitive edge during show events. USDA conducts oversight of the program through unannounced inspection at horse shows, sales, auctions or other exhibiting events.

Inspection Activities

The HPA requires all horses to be inspected prior to participating in HPA-covered events. USDA uses a third-party inspection program to support the administration of the HPA. The program includes the USDA certifying the Horse Industry Organizations (HIOs) and the HIO licensing a Designated Qualified Person (DQP) to inspect horses for HPA compliance. In FY 2016, DQPs attended 256 HPA events and inspected 45,523 horses. In total, DQPs identified 246 HPA violations.

APHIS attends select HPA-covered events to evaluate DQP performance and oversee HIO and participant compliance with the HPA requirements. In FY 2016, APHIS focused its limited resources on attending additional horse events, resulting in an increased number of USDA inspections. APHIS attended 69 horse events and inspected 11,348 horses. For those events where USDA conducted inspections and oversight of the DQP inspectors, the Agency identified 922 instances of noncompliance with the HPA. The Agency used thermography imaging on 2,191 horses as a pre-screening technique to determine the need for a physical inspection. Thermography identifies distinctive thermal patterns that can be a result of the inflammatory response to soring or revealing that a substance was applied to mask soring. Additionally, APHIS analyzed 118 samples to provide confirmation of the use of a chemical agent, of which 75 percent tested positive for a prohibited substance.

Of the approximately 200 horse events each year, the Tennessee Walking Horse National Celebration show is the largest and most prestigious Tennessee walking horse event. At the 2016 Celebration show, DQPs inspected 1,466 horses and found 29 HPA noncompliances – resulting in show management disqualifying 27 of those horses. USDA inspectors inspected 549 horses and identified evidence of soring or other HPA noncompliances on 161 horses inspected. As a result, show management disqualified 105 of the USDA inspected horses. In total, show management disqualified 132 horses from the 2016 Celebration.

APHIS has made significant efforts to increase transparency regarding inspection techniques and results. This includes full inspection report data, including noncompliant items identified by type, and number of horses show

management disqualified from participating in HPA-covered events. These reports are available on the APHIS website: https://www.aphis.usda.gov/aphis/ourfocus/animalwelfare/SA_HPA.

Enforcement Activities

APHIS initiated 438 cases; issued 956 Official Warnings; and obtained 33 administrative orders assessing \$20,400 in civil penalties and disqualified 21 individuals from participating in activities regulated under the HPA. The Agency entered into a consent decision, resolving multiple alleged violations of the HPA. APHIS filed two complaints against an individual alleging that on eight separate occasions, between 2012 and 2014, the person entered for the purpose of showing, and/or showed eight different horses in horse shows, while the horses were sore and in violation of the HPA. The consent decision disqualified the individual from showing, exhibiting, or entering any horse in any horse show, exhibition, sale, or auction for a period of six uninterrupted years. APHIS also obtained a decision and order imposing a 5-year disqualification for a violation of the HPA against an individual who had previously been found to be in violation of the Act.

Outreach/Stakeholder Activities

Upon request by the HIO, APHIS provides classroom instruction on the HPA and regulations during the HIO DQP yearly training seminars. In FY 2016, APHIS provided 10 training sessions, including refresher training to existing DQP inspectors and USDA inspectors, and initial training for those interested in becoming DQP inspectors.

Regulatory Changes

On July 25, 2016, APHIS published in the *Federal Register* a proposed rule to strengthen enforcement of the HPA, and finally end the practice of soring. Under the proposed rule, APHIS would assume responsibility for training, screening and licensing horse inspectors. These changes would support the 2010 USDA Office of Inspector General Audit, which stated that the existing regulatory structure is ineffective because many industry-trained inspectors have conflicts of interest. Additionally, APHIS proposed to prohibit the use of all action devices, pads, and foreign substances at horse shows, exhibitions, sales, and auctions. APHIS received extensive stakeholder input into the proposed rule. In addition to receiving more than 130,000 comments received via the *Federal Register*, APHIS held five public meetings across the United States to gather further input into the rule making process. The Agency is considering all public input.

AGENCY MANAGEMENT

Current Activities: The Agency Management programs support the daily operations of APHIS and provide for a safe and secure work environment. These programs provide the information technology, space and telecommunications infrastructure that gives Agency employees the tools they need to carry out their responsibilities. These programs also oversee and implement precautionary security measures to ensure continued mission operations while ensuring the safety of APHIS people and facilities. In addition, these programs supports APHIS' contribution to the U.S. Department of State's continuing implementation of the Capital Security Cost Sharing Program, which provides safe and secure workplaces for all U.S. government employees located overseas.

Selected Examples of Recent Progress in Agency Management:

1. APHIS Information Technology and Infrastructure

APHIS' Information Technology Infrastructure (AITI) is comprised of the hardware, software, and telecommunications security infrastructure that provides Agency employees with office automation tools, Internet access, and access to mission-critical information technology (IT) programs and administrative applications. APHIS maintains, enhances, and operates the IT infrastructure to support Agency business, conduct research and analysis, carry out administrative processes, record program activities, and deliver program services. AITI objectives and priorities are to continually improve sharing of information across the Agency; improve coordination and accessibility of information, processes, and resources available to assist programs in emergencies; and improve

APHIS' cyber-security. AITI funding is used to maintain annual software license and hardware agreements, and to provide for life-cycle replacement for enterprise hardware.

The FY 2016 accomplishments listed below support these objectives:

- License Renewal – APHIS supported 8,521 users with license renewals so they can access and legally use the enterprise software in conducting business.
- Availability – APHIS supported internal and external stakeholders by providing optimal levels of service. The Agency continued to maintain 99.97 percent availability for its key computing systems this fiscal year. The AITI program also maintained applications availability outside of the normal operational hours, on weekends, and holidays to ensure availability of systems.
- Technology – APHIS is undertaking a long-term, Agency-wide initiative of utilizing commercial cloud provided hosting services for its systems. This year, the Agency successfully transitioned its APHIS helpdesk and APHIS geographic mapping systems to the cloud.
- Cyber-Security – APHIS updated to the latest version of the National Institute of Standards and Technology and Federal Information Security Management Act testing standards to enhance our cyber security and reduce vulnerabilities of our systems. Updating these standards allows for a stronger defense against security breaches. These testing standards are based on cybersecurity guidelines required by Congressional legislation.

2. Physical Operational Security

APHIS oversees and implements precautionary measures to ensure continued, efficient mission operations, and protection from disruption, degradation, or destruction of its facilities through the Physical and Operational Security (POS) program. The program provides year-round security measures, such as physical security upgrades, alarms, badging and identification systems, guard services, security assessments, safety and risk assessments, workplace violence training, and investigations of both internal and external threats. These measures protect APHIS employees, as well as visitors and stakeholders from harm, acts of terrorism, and violence. In addition, this program supports part of the USDA's contribution to the U.S. Department of State's continuing implementation of the Capital Security Cost Sharing program, which provides safe and secure workplaces for all government employees located overseas.

The POS program provides numerous security trainings to Agency employees. In FY 2016, the program provided 52 trainings for more than 1,750 Agency employees, including situational awareness and self-defense seminars. The program also provided one workplace violence training seminar and multiple security briefings for employees who work along the international border or in foreign countries. To enhance preparedness and response, APHIS required Active Shooter training for all employees through on-line and classroom based training. Two live active shooter training exercises were planned and delivered at the Agency's Ames, Iowa and Fort Collins, Colorado facilities. These exercises involved over 500 employees and 100 law enforcement officers. The scenario-based shooter training exercises provided a dynamic, interactive exercise for APHIS employees, as well as law enforcement officers from multiple Federal, State, and local agencies.

The POS program investigates, assesses, and mitigates all internal and external threats, directed at Agency facilities, programs and personnel. These threats include death threats, terrorist threats, and assaults, among others. In FY 2016, APHIS investigated 191 external threats to APHIS employees. The POS program also works to ensure the safety of employees working at or near the Mexican border, and throughout Mexico and Guatemala.

Additionally, the POS program ensures the safety of APHIS employees who enforce the Animal Welfare Act (AWA). APHIS security specialists investigate threats and respond to requests for protection throughout the country for APHIS veterinarians and inspectors who are enforcing regulations in challenging environments. With regard to safeguarding APHIS employees entering private property, POS provided security during 32 inspections of regulated AWA entities.

In FY 2016, the program completed physical security assessments at 266 facilities. Of those facilities assessed, 21 were upgraded to ensure that the buildings are compliant with Homeland Security Presidential Directive-12 (HSPD-12). This directive created a government-wide standard for secure and reliable forms of identification to access

Federally controlled facilities and networks. Additionally the POS program was responsible for issuing, activating, or updating 8,296 personal identification verification (PIV) cards, bringing APHIS employees in compliance with PIV use.

The program also works with other USDA agencies, the U.S. Department of Justice, U.S. Department of Homeland Security, the U.S. Department of State, and local law enforcement agencies to ensure that the appropriate organization takes the lead, contributes to program costs, and integrates security where employees are co-located overseas. APHIS maintains a presence overseas to facilitate agricultural trade and monitor pest and disease threats. The Security Embassy Construction Counterterrorism Act's Capital Security Cost Sharing Program requires the Agency to help fund the construction of New Embassy Compounds based on the number of authorized positions. In FY 2016, APHIS had 319 full-time employees based in countries around the world. This program provides safe and secure diplomatic facilities for the Agency's overseas personnel. If the program were not funded, these measures would continue to be implemented at the expense of other program operations because it is necessary to maintain a safe work environment.

3. Rental and Department of Homeland Security Payments

This account currently supports rental payments associated with 237 General Services Administration (GSA) leases and Department of Homeland Security (DHS) payments. The funding allows APHIS programs to continue carrying out mission-related activities, including surveillance for animal and plant pests and diseases, pest and disease eradication programs, diagnostic and methods development work at laboratories, animal welfare inspections, and wildlife damage management activities, without diverting fiscal resources from operations to cover these costs.

APHIS is taking several steps to reduce rent expenses and better manage its space portfolio overall. Last year, the Agency conducted a detailed analysis of space usage at the Fort Collins, Raleigh, and Minneapolis hub locations to identify opportunities for space reduction or consolidation. Based on these analyses, APHIS initiated actions to better manage space in its Raleigh and Minneapolis hub locations. Agency programs are currently located in multiple spaces at the North Carolina State University campus in Raleigh. APHIS consolidated three locations to two, which reduced the footprint by 12,513 rentable square feet and reduced the overall number of leases for this hub location. The Agency also is moving its programs into a new space at the Minneapolis hub location. Once complete, APHIS will have reduced its Minneapolis hub footprint by 8,933 rentable square feet. To maximize the available space, the Minneapolis hub will incorporate a number of space management practices such as having unassigned workstations and offices. The Agency has designated a team of staff to oversee the transition to the new space, including the development of open office etiquette, and is hosting several outreach events to help prepare employees for operating in the new environment. This effort will continue through FY 2017. In addition, APHIS is in the process of demolishing the Ames, Iowa, Building 400 facility, which will reduce the Agency's footprint by 146,179 rentable square feet. This effort also will continue through FY 2017.

APHIS is in the process of implementing other measures for managing its space portfolio. The space analyses the Agency conducted last year assisted management in validating program activities performed at each facility. Based on the analyses, APHIS was able to ensure those locations where APHIS conducts user fee or reimbursable activities bear a proportionate share of the lease costs. These efforts help the Agency better align rental expenses with the budgetary resources available to finance them. In working with GSA, APHIS also identified an opportunity for the direct billing of GSA leases. Direct billing removes several steps for funding transfers between the USDA and its agencies, including APHIS. USDA implemented the direct billing of GSA lease payments at the beginning of FY 2017. In addition, APHIS' senior management established a process for approving space changes (e.g., requests for new or increases in space) to ensure it is within the allowable footprint and funding allocations. The Agency will designate a board to review requests for space changes, approve or deny such requests, and report on the progress made in meeting the various government-wide and Department-wide space requirements in FY 2017. This group will also continue to explore ways to improve the process to ensure that the Agency is reducing its footprint where possible.

While APHIS expanded its footprint by 3,648 square feet in FY 2016, the Agency is projecting to reduce its footprint by 170,187 rentable square feet in FY 2017, exceeding the USDA's 7.5 percent reduction goal (125,034 rentable square feet).

MULTI-AGENCY COORDINATION (MAC) GROUP

Selected Examples of Recent Progress in Multi-Agency Coordination Group:

1. Huanglongbing

Huanglongbing (HLB) is a serious disease of citrus that threatens all U.S. citrus production, valued at \$3.3 billion in 2015 (National Agricultural Statistics Service). HLB infects trees in all of Florida's citrus groves, greatly reducing production and acreage. Additionally, the disease is present in all of Texas' citrus producing areas and has been detected in a residential area of Los Angeles, California. Its insect vector, the Asian citrus psyllid (ACP), is widespread in urban areas in southern California, threatening the State's more than \$2 billion citrus industry. ACP is also present in Arizona, New Mexico, and Louisiana. APHIS established the HLB Multi-Agency Coordination (MAC) response framework in December 2013, to help address the industry's immediate and long-term needs in dealing with this devastating disease. In addition to APHIS, the MAC is comprised of representatives from USDA's Agricultural Research Service, National Institute of Food and Agriculture, Office and Pest Management Policy, and the Risk Management Agency; the Environmental Protection Agency; State departments of agriculture in Florida, Arizona, California, and Texas; and citrus industry organizations in Florida, California, and Texas. The FY 2016 Omnibus Appropriations Act provided a one-time, two-year appropriation of \$5.5 million to APHIS to continue support for the HLB MAC, which is coordinating efforts to identify and support promising tools and solutions that citrus growers can use against HLB in the short-term.

In FY 2014-2015, the HLB MAC group used its first appropriation of \$20 million to fund 32 projects carried out by State cooperators, universities, private companies, and Federal agencies. The projects focused on strategies for vector control, therapies for infected trees, sustainability of new plantings, and early detection technologies. Many of these projects continued into FY 2016, and are continuing to provide benefits and tools for citrus growers to implement in their groves. Based on data from an HLB MAC-funded project showing that antimicrobial treatments are promising in controlling HLB infections in trees, APHIS supported Florida's request to the Environmental Protection Agency (EPA) for a Section 18 exemption to allow the use of antimicrobial treatments in Florida on an emergency basis. EPA has approved the request, and growers are using the treatments across Florida.

In FY 2016, the HLB MAC provided funding to three projects continuing successful biological control efforts. APHIS and cooperators have increased the number of biological control agents reared and released from approximately 4 million per year in FY 2014, to more than 8 million in FY 2015, to 12 million per year by the end of FY 2016. The Texas Department of Agriculture, as well as a large citrus producer in Florida, has already adopted the use of improved field cages for rearing biological control agents within residential areas with the help of residents. In Texas, with funding from the HLB MAC and the Citrus Heath Response Program, biological control efforts reduced ACP populations by more than 50 percent.

To date, growers and commercial firms have adopted 36 percent of the tools funded through HLB MAC projects. APHIS is hopeful that the solutions found will help citrus growers in the near future, while research into long-term solutions for HLB continues.

In FY 2016, at the request of the citrus industry, APHIS added three additional industry members to the HLB MAC Group to provide additional grower input in the project prioritization process. The HLB MAC conducts an in-depth review of all projects to monitor progress and verify usefulness to the citrus industry. They will consider projects of the highest value to the citrus industry for continued funding in FY 2017.

CONTINGENCY FUNDS

1. Cattle Fever Tick

In FY 2016, APHIS spent approximately \$1.7 million in Agency contingency funds on efforts to address a cattle fever tick (CFT) outbreak in Cameron and Willacy Counties, Texas. CFT transmit babesiosis, a severe and often fatal cattle disease. Even when not transmitting this disease, CFT can cause blood loss, damage to hides, and an overall decrease in the condition of livestock. CFT remains well established within a 500-mile buffer zone from Del Rio, Texas, to the Gulf of Mexico. When CFT is detected outside of the buffer zone, APHIS and the Texas Animal Health Commission (TAHC) take quick action to prevent any further spread. In October 2014, the TAHC issued a Temporary Preventative Quarantine Area encompassing 222,520 acres in Cameron County, and it will be in effect until all premises within it are released from CFT quarantine and the area is determined to no longer be at risk of infestation. In November 2016, 14,460 acres in the southwest corner of the quarantine area were released, reducing the quarantine area to approximately 200,000 acres.

By the end of FY 2016, APHIS and the TAHC had identified 31 infested premises outside the quarantine area (in the tick-free area) in Cameron and Willacy Counties. During FY 2016, APHIS and the TAHC inspected 43,953 animals and treated 23,244 animals in this area. APHIS and the TAHC also created a joint Incident Command System to determine the extent of the spread, prevent further spread, and control CFT on nilgai (an Asian antelope), white-tailed deer, and other ungulates capable of hosting CFT. This effort involved systematically inspecting and treating all premises, livestock, and other hosts within the temporarily quarantined area, as well as controlling the movement of livestock and hunted animal trophies. In addition, APHIS collaborated with the TAHC and the U.S. Fish and Wildlife Service (FWS) to harvest the nilgai in the area. In FY 2016, the Agency also used pesticides to kill ticks on livestock, ensured animals were appropriately identified, and conducted tick surveillance through the controlled removal of nilgai and inspections of wildlife harvested during public hunting events on FWS refuges.

In December 2015, APHIS completed the Final Environmental Impact Statement (EIS) regarding the installation of game fencing along the permanent quarantine line and worked to finalize a landowner/USDA cost share agreement and associated standard operating procedures (SOPs) for implementing these actions. The Final EIS will be published after the SOPs are complete. Once installed, the fence will create a minimally intrusive pest control measure that augments existing program activities. It will reduce the likelihood of disease transmission from wildlife and help prevent re-infestation of areas where the pest has been or is being eliminated. In addition, it will reduce the economic burden that extends to the U.S. government and taxpayers by reducing the potential for pest entry.

SUMMARY OF 2016 CONTINGENCY FUND RELEASES

	Emergency/Activity	Releases from Contingency Fund in FY 2016	Total Obligations in FY 2016
1	Cattle Fever Tick	\$1,692,492	\$1,577,216
	Total	\$1,692,492	\$1,577,216

EMERGENCY ACTIVITIES FUNDED BY TRANSFERS
FROM COMMODITY CREDIT CORPORATION (CCC)

1. Avian Influenza

In FY 2016, APHIS spent approximately \$97 million in Commodity Credit Corporation funds to complete the depopulation, disposal, and cleaning and disinfection activities associated with the 232 cases of high pathogenic avian influenza (HPAI) confirmed in 21 States from December 2014 through June 2015, as well as an additional unrelated case of HPAI in Indiana in January 2016. After completing these activities, the Agency conducted environmental sampling to ensure that the virus was no longer present before allowing the premises to restock and resume business. During the outbreaks and responses, approximately 50 million birds were affected and either died from the disease or were euthanized as part of the response. By the spring of 2016, all commercial facilities that became infected had been disinfected and cleared to resume operations. Throughout the 2015 and 2016 outbreaks, APHIS collaborated with Federal, State, and industry partners to respond quickly and decisively. These outbreaks reaffirmed the value of surveillance for rapid detection and a quick response to depopulate infected flocks. The Agency's actions in this emergency program served to safeguard U.S. poultry and egg producers and reduce the effects of avian influenza on agriculture and public health, while also enhancing readiness for other animal health emergencies. APHIS has previously used the term notifiable avian influenza to identify poultry infection caused by an influenza A virus with high pathogenicity, or by H5 and H7 subtypes with low pathogenicity. However, the World Organisation for Animal Health no longer uses the term notifiable to identify these viruses.

During and after this unprecedented emergency, APHIS evaluated its response and identified several areas for improvement. Based on this evaluation, APHIS implemented a comprehensive emergency response plan in FY 2016, to help prevent or reduce future outbreaks. This plan includes actions to enhance preparedness, promote robust biosecurity practices, improve and streamline response capabilities, improve communications with producers, and prepare for the potential use of vaccines. Among the actions taken, APHIS improved wild bird surveillance to enable early detection of HPAI, improved capabilities to rapidly detect HPAI in domestic poultry, and improved capabilities to depopulate affected flocks within 24 hours of the detection. Although vaccination was not necessary with this outbreak, APHIS did take steps in FY 2016, to ensure vaccine availability. The Agency awarded several contracts to private companies to develop an H5 HPAI vaccine and vaccine combinations effective against the Eurasian virus strain to establish an emergency vaccine stockpile. In addition to domestic improvements, APHIS continued to work with international trade partners to ensure that trade was maintained to the greatest extent possible and to ensure the timely lifting of trade bans due to HPAI.

Also in FY 2016, APHIS improved the processes for paying indemnities and other reimbursements, so that producers could receive a fair amount of compensation quickly and return to production in a timely manner. The new process provides a flat indemnity rate to producers for cleaning and disinfection, based upon the type of poultry facility and number of birds in the flock. This measure helped the Agency provide resources to producers faster, and reduced paperwork for producers. In addition, APHIS published a rule that clarified an existing policy that allows for indemnity payments for eggs destroyed by an HPAI response, ensures that contract growers receive an appropriate split of indemnity payments, and requires owners and contractors to verify that they had a biosecurity plan in place at the time HPAI was detected in their facilities before they may receive an indemnity payment. Further, APHIS updated its indemnity calculator formula for laying hens to more closely resemble a fair-market transaction. This formula determines fair market value based on the net income generated per dollar of farm revenue. This new calculator, which took effect on October 1, 2016, and will be updated quarterly, addresses concerns raised by egg layer producers after the outbreak. APHIS has worked to address these concerns and make the calculator more transparent.

2. Swine Enteric Coronaviruses

In FY 2016, APHIS spent approximately \$8 million in emergency funds to continue responding to the identification of swine enteric coronavirus diseases (SECD) - such as porcine epidemic diarrhea – originally detected in 33 States and Puerto Rico in FYs 2013 and 2014. The Agency, along with States and the swine industry, made great progress

in reducing the spread of SECD viruses and minimizing the impact of these diseases on swine producers and the swine industry.

In June 2014, APHIS published a Federal Order for monitoring and managing SECD that included mandatory disease reporting and requires producers and veterinarians to develop herd monitoring and management plans. Mandatory reporting ensures that the Federal government, States, and industry have sufficient information to characterize and understand the scope of SECD to inform control options and decrease disease spread. In January 2016, the Agency issued a revised Federal Order to extend the availability of emergency funds to reimburse producers for the testing of diagnostic samples through the 2015-2016 winter season. To maximize these resources, APHIS eliminated the requirement that herd management plans be developed for herds meeting the case definition for SECD. In addition, the Agency discontinued payments to veterinarians for the completion of herd plans and payments to producers for biosecurity practices (truck washing and disinfection). APHIS discontinued providing reimbursements for diagnostic sampling on April 30, 2016, although swine operations continued sampling after this date and APHIS continued to require the reporting of SECD findings. Also in FY 2016, APHIS had discussions with the swine industry to solicit feedback and recommendations regarding the future direction of the SECD program. These discussions will continue into FY 2017.

3. Tuberculosis

In FY 2016, APHIS spent \$14 million in CCC funds on tuberculosis (TB) eradication activities in Texas and Michigan. In October 2014, the Food Safety and Inspection Service detected a slaughter cow with TB at a beef packing plant in Castro County Texas. APHIS traced the cow back to a nearby dairy, which consisted of approximately 5,000 cows and an equal number of replacement calves of various ages. Whole-herd testing, conducted in FY 2015, confirmed TB infection in this herd. Depopulation of this dairy was completed with CCC funds on March 31, 2016. An additional dairy, owned by the same owner, completed a testing plan in January 2016 and was released from quarantine. In March 2015, TB was confirmed in an estimated 300 cow Michigan dairy detected through area surveillance testing. By the end of November 2015, the entire herd was depopulated. Late in FY 2015, TB was confirmed in an additional unrelated large Texas dairy herd (a complex of two dairies and their heifer raising facility). In FY 2016, APHIS used CCC funds to remove cattle from this complex during herd testing and to remove cattle in trace herds which had received cattle from this herd prior to the complex being quarantined.

The detection of these herds demonstrates the effectiveness of APHIS' surveillance system. To respond to these detections, APHIS worked closely with State animal health officials to quickly identify any cattle that may have come into contact with the infected cattle or herds, and conducted thorough trace back investigations. In addition, the States worked closely with the dairies involved as well as the State dairy industry to ensure the disease was quickly contained, and that the affected dairies could return to normal business practices as soon as possible.

In both Texas and Michigan TB eradication efforts, APHIS oversaw and managed the epidemiological investigation and the quarantined herds; implemented depopulation and indemnification activities; and conducted a complete epidemiological investigation of the infected herds back to 2009. The States assisted with epidemiological analyses, cleanup efforts, and herd response efforts (depopulation and test-and-removal activities). In addition, APHIS worked with the States to carry out enhanced surveillance, necessary to disclose any other affected herds and to determine the source of infection.

4. Farm Bill

Plant Pest and Disease Management and Disaster Prevention (Farm Bill Section 10007)

The Agricultural Act of 2014 consolidated two of APHIS' Farm Bill programs: Plant Pest and Disease Management and Disaster Prevention Program (formerly Section 10201) and the National Clean Plant Network (NCPN) (formerly Section 10202) now under Section 10007, Plant Pest and Disease Management and Disaster Prevention Program. For FY 2016, the Farm Bill provided \$62.5 million for the program.

Through the Plant Pest and Disease Management and Disaster Prevention program (first established by the Food, Conservation, and Energy Act of 2008), APHIS funds projects for early plant pest detection and surveillance,

identification and mitigation of plant pests and diseases, and technical assistance in the development and implementation of audit-based certification systems and nursery plant pest risk management systems. Since 2009, APHIS has funded more than 2,600 projects in 50 States and 2 U.S. territories, strengthening the Agency's and cooperators' abilities to protect U.S. agriculture and natural resources from foreign pest threats. In support of the NCPN, which provides reliable sources of pathogen-free planting stock of high-value specialty crops, APHIS and cooperators also have provided funding and other support since 2009, to 144 projects accomplished at 27 clean plant centers and associated programs in 19 States or U.S. territories representing fruit trees, grapes, citrus, berries, hops, sweet potato, and roses.

Plant Pest and Disease Management

APHIS and cooperators have identified six major strategies (the first with two sub-goals) to implement Plant Pest and Disease Management efforts: 1a) enhancing plant pest/disease analysis; 1b) enhancing plant pest survey 2) targeting domestic inspection activities at vulnerable points; 3) enhancing pest identification tools and technology; 4) developing programs to safeguard nursery production; 5) enhancing outreach and education; and 6) enhancing mitigation capabilities. APHIS funded 460 projects in FY 2016, supporting a variety of stakeholders, including Federal, State, academic, Tribal, and private entities.

Enhance Plant Pest Analysis

Under this goal, APHIS supports projects that compile, synthesize, or evaluate data to inform or enhance risk and pathway analysis, surveillance methodology, or resource prioritization. In FY 2016, the program provided approximately \$2 million for 19 projects in this goal area. Examples include a risk-based survey design for plum pox virus, a study of potential tree pest risks associated with Cuba, weed risk assessments for botanical gardens, and spatiotemporal risk maps for fruit fly species.

Enhance Plant Pest Survey

Under this goal, APHIS supports surveys for multiple, high-risk pests in port environs, across pathways of introduction, and in specialty crop commodities nationally. These surveys provide protection for and help small growers and nursery owners avoid control costs through a more rapid and thorough detection of pests that threaten their operations. Overall, the program provided approximately \$12 million for 168 projects in this goal area, including 87 commodity- and taxon-based surveys targeting 80 different pests. In FY 2016, the program also continued the National Survey of Honey Bee Pests and Diseases in cooperation with the University of Maryland, USDA's Agricultural Research Service, and apiary specialists in 38 States and Territories. This coast-to-coast survey, the most comprehensive one to date for honeybee pests—provides crucial baseline data to gauge colony health and detect exotic pest introductions quickly. The program also funded grape commodity surveys, cyst nematode surveys, Khapra beetle surveys, and others across multiple States.

Target Domestic Inspection Activities at Vulnerable Points in the Safeguarding Continuum

Under this goal, APHIS supports domestic inspection activities at high risk sites (e.g., warehouses and parcel facilities), inspects regulated articles moving interstate, and uses trained canine detection teams to improve detection capabilities. Developing these cooperative efforts with State agriculture regulatory agencies helps minimize impacts to producers and distributors of agricultural commodities. In FY 2016, the program continued to support canine team efforts in California where 14 teams work at Express Couriers and U.S. Postal Service offices in 10 counties, and in Florida where 6 teams work at Express Couriers in 4 counties and are cross trained to detect giant African snails. With their keen sense of smell, dogs can detect hidden agricultural products at an accuracy rate higher than 90 percent. The program uses canine teams to enhance capacity for; early detection and better response to exotic pests found during surveys; increase liaison between State and Federal cooperators by reviewing, developing, and implementing educational programs; provide additional resources at high-risk areas within the State for inspection; and benefit inspections at parcel service locations to enhance interdiction efforts. Overall, the program provided approximately \$5.91 million for five projects in this goal area in FY 2016.

Enhance Pest Identification and Technology

Under this goal, APHIS supports the ongoing development of improvements in pest identification and detection. This includes improved identification capacity and taxonomic understanding of groups of organisms, taxonomic support for surveys targeting high consequence pests, and the development of pest detection technology. One key project is the National Survey Supply Program that oversees timely procurement and delivery of quality survey supplies, such as traps and lures, to APHIS and State cooperators. In FY 2016, the Survey Supply Program procured, and is in the process of, distributing nearly 500,000 traps and lures that target exotic pests to all 50 States and several territories. Other projects include development of molecular-based strategies for managing the old world bollworm, improved attractants and trap designs for exotic wood boring beetles (a group that includes the emerald ash borer), enhanced molecular diagnostics for exotic fruit flies, screening tools for exotic moth surveys, and continued support for the Regional Identification Center for Bark Beetle and other wood boring beetles in Oregon and a Pulse Crop Diagnostic Laboratory in Montana. APHIS spent approximately \$5.20 million on 68 projects in support of this goal in FY 2016.

Safeguard Nursery Production

Under this goal, APHIS supports projects to develop science-based best management practices and risk mitigation practices to exclude, contain, and control regulated pests from the nursery production chain, and developing and harmonizing audit-based nursery certification programs. These activities help small producers and distributors mitigate pest risks, reduce operational costs, and enhance the value of nursery stock they produce. Examples of projects funded in FY 2016, include support for the National Ornamentals Research Site at Dominican University of California, audit training for State and Federal personnel on Plant Pest Management Accreditation, national harmonized systems approaches for nursery certification, continued work assessing disinfectants for use in controlling *Phytophthora ramorum* and several projects supporting grape certification programs. The program also supported the Systems Approach to Nursery Certification (SANC) pilot program. SANC brings together the National Plant Board and nursery industry groups to promote audit-based programs for nursery stock to reduce the risks of pest spread. The program provided approximately \$2.10 million for 32 projects in this goal area in FY 2016.

Education and Outreach

Under this goal, APHIS works to engage the public in early detection efforts by strengthening existing volunteer networks. APHIS emphasizes efforts that can lead to changes in behavior among the public and the regulated community that enhance efforts to prevent the introduction or spread of high-consequence pests into and throughout the United States. FY 2016 projects in this goal area include a consumer awareness campaign called “Making Your Household Goods Move Gypsy Moth Free” to increase compliance with requirements designed to prevent spread of gypsy moth to new areas, support for a regional approach to managing invasive species in the Columbia Gorge in Washington State, and a variety of programs across several States designed to engage youth in invasive species reporting efforts. Overall, the program provided \$2.96 million for 52 projects in this goal area in FY 2016.

Enhance Mitigation and Rapid Response Capabilities

Under the goal of enhancing mitigation capabilities, APHIS provides technical assistance prior to, during, and immediately following a plant pest outbreak, develops new mitigation tools and strategies, and increases emergency preparedness through the development of New Pest Response Guidelines and Incident Command System training. Some of these efforts provided support for development of new methods or treatments for economically significant pests including exotic fruit flies, giant African snail, and cactus moth. These projects also included improving honey bee stock that is resistant to varroa mites (an economically significant honey bee pest) and continued support for the development of biological control programs targeting the brown marmorated stinkbug. FY 2016 projects also included continued support for the coordinated response to spotted lanternfly, a plant pest detected in Pennsylvania in FY 2015, for the first time. It threatens grapes, apples, and stone fruit, as well as more than 70 types of ornamental and woody trees. In FY 2016, Federal, State, and local officials in Pennsylvania used a tree-banding program to detect and contain the pest’s spread. The program has been successful thus far, due largely to its collaborative approach and public support. Additional projects include the development of biological control

programs against spotted lanternfly and other methods that may be crucial for long-term management of the pest. APHIS spent \$22.30 million on 113 projects in this goal area in FY 2016.

National Clean Plant Network (NCPN)

In FY 2016, APHIS also used Section 10007 funds to provide NCPN support to qualified clean plant centers through a cooperative agreements program. The application process allowed stakeholders to offer input into projects proposed for funding through pre-proposals, which are designed to help clean plant centers prioritize and harmonize their resourcing requests. As a result, APHIS entered into 22 cooperative agreements with clean plant centers and related entities in 17 States and one U.S. territory (Puerto Rico). The clean plant centers that receive NCPN funding are using the resources to: 1) diagnose for harmful pathogens that cause disease in covered specialty crops; 2) apply therapeutic measures to eliminate these pests; 3) establish plantings of clean plant ‘starter’ material and make this material available to nurseries and growers; 4) work with nurseries and growers in education/outreach programs to communicate the economic value to industry of using clean nursery stock; and 5) engage in the process of establishing and governing a network of collaborative clean plant centers. These activities will result in clean plant centers providing additional sources of healthy planting stock for fruit trees, grapes, citrus, berries, and hops -- as well as sweet potato and roses. This healthy planting stock will be available to nurseries, growers, breeders, and others, ensuring that they have access to clean plant material necessary to sustain their businesses, maintain productivity, and improve the quality of their products.

Since the program’s inception, the clean plant centers on an annual basis have helped the following commodities:

- Fruit Trees - Maintain about 2,250 clean fruit tree accessions in foundations (blocks of pathogen-tested plant materials) that have delivered more than 500,000 cuttings, scions, and plantlets as well as more than 1.7 million buds to nurseries and growers.
- Grapes – Maintain about 1,000 selections of clean grapevine accessions in foundations and distribute more than 700,000 clean grape-wood cuttings, buds, plants, or special seed to industry.
- Berries – Diagnose and clean about 75 new berry accessions annually and maintain clean plant foundations that provide mother plants to industry that have produced nearly 30 million clean berry plants annually.
- Citrus – Maintain about 400 clean citrus tree accessions in foundations and deliver ‘starter material’ to industry that has resulted in more than 275 million clean citrus trees over the past 7 years.
- Hops – Maintain more than 50 clean hop selections in foundations that are used to accommodate about 30 percent of the world’s need for clean hops. Over five thousand clean propagative units have been distributed to industry; each unit can be expanded rapidly to provide thousands of plants for planting annually.
- Sweet potato – Add about 40 new sweet potato accessions annually to existing foundations, with 170 accessions currently available for use by industry in addition to numerous heirlooms and introductions maintained. Clean plant centers delivered more than 202,000 clean plants to industry in 2015-2016.
- Roses – Continued advanced testing of about 600 rose selections currently maintained in foundations, with 6 acres currently housing rose clean plant material with a goal of reaching an industry need of 15 acres in foundational material.

SUMMARY OF KEY FY 2016 CCC FUNDED EMERGENCY ACTIVITIES

	Emergency/Activity	Total Available in FY 2016 a/	Total Obligations in FY 2016
1	Avian Influenza	\$191,903,865	\$97,366,405
2	Swine Enteric Coronaviruses	9,577,487	8,091,724
3	Tuberculosis	17,733,708	14,370,984
4	Farm Bill	58,399,932	55,069,371
	Total	\$277,614,992	\$174,898,484

a/ Total Available includes account recoveries, where applicable.

ANIMAL AND PLANT HEALTH INSPECTION SERVICE

The estimates include appropriations language for this item as follows (new language underscored; deleted matter enclosed in brackets):

Buildings and Facilities:

For plans, construction, repair, preventive maintenance, environmental support, improvement, extension, alteration, and purchase of fixed equipment or facilities, as authorized by 7 U.S.C. 2250, and acquisition of land as authorized by 7 U.S.C. 428a, [~~\$3,175,000~~]\$2,852,000, to remain available until expended.

ANIMAL AND PLANT HEALTH INSPECTION SERVICE

Buildings and Facilities

Lead-Off Tabular Statement

Budget Estimate, 2018.....	\$2,852,000
2017 Annualized Continuing Resolution.....	<u>3,169,000</u>
Change in Appropriation.....	<u><u>-317,000</u></u>

Summary of Increases and Decreases
(Dollars in thousands)

Program	<u>2015</u> <u>Actual</u>	<u>2016</u> <u>Change</u>	<u>2017</u> <u>Change</u>	<u>2018</u> <u>Change</u>	<u>2018</u> <u>President's</u> <u>Budget</u>
Discretionary Appropriations:					
Basic buildings and facilities repair, alterations, and preventive maintenance.....	\$3,175	-	-\$6	-\$317	\$2,852
Total Appropriation or Change.....	<u>3,175</u>	<u>-</u>	<u>-6</u>	<u>-317</u>	<u>2,852</u>

Project Statement
Appropriations Detail and Staff Years (SYs)
(On basis of appropriation)
(Dollars in thousands)

Program	<u>2015 Actual</u> <u>Amount</u>	SYs	<u>2016 Actual</u> <u>Amount</u>	SYs	<u>2017 Estimate</u> <u>Amount</u>	SYs	<u>Inc. or Dec.</u> <u>Amount</u>	SYs	<u>2018</u> <u>President's Budget</u> <u>Amount</u>	SYs
Discretionary Appropriations:										
Buildings and Facilities.....	\$3,175	-	\$3,175	-	\$3,169	-	-\$317	-	\$2,852	-
Total Appropriations.....	<u>3,175</u>	<u>-</u>	<u>3,175</u>	<u>-</u>	<u>3,169</u>	<u>-</u>	<u>-317</u>	<u>-</u>	<u>2,852</u>	<u>-</u>
Balance available, SOY	1,484	-	2,107	-	755	-	+206	-	961	-
Recoveries.....	1,883	-	3,680	-	-	-	-	-	-	-
Total Available.....	<u>6,542</u>	<u>-</u>	<u>8,962</u>	<u>-</u>	<u>3,924</u>	<u>-</u>	<u>-111</u>	<u>-</u>	<u>3,813</u>	<u>-</u>
Balance available, EOY.....	<u>-2,107</u>	<u>-</u>	<u>-755</u>	<u>-</u>	<u>-961</u>	<u>-</u>	<u>+148</u>	<u>-</u>	<u>-813</u>	<u>-</u>
Total Obligations.....	<u>4,435</u>	<u>-</u>	<u>8,207</u>	<u>-</u>	<u>2,963</u>	<u>-</u>	<u>+37</u>	<u>-</u>	<u>3,000</u>	<u>-</u>

Project Statement
Obligations Detail and Staff Years (SYs)
(Dollars in thousands)

Program	<u>2015 Actual</u> <u>Amount</u>	SYs	<u>2016 Actual</u> <u>Amount</u>	SYs	<u>2017 Estimate</u> <u>Amount</u>	SYs	<u>Inc. or Dec.</u> <u>Amount</u>	SYs	<u>2018</u> <u>President's Budget</u> <u>Amount</u>	SYs
Discretionary Obligations:										
Buildings and Facilities.....	\$4,435	-	\$8,207	-	\$2,963	-	\$37	-	\$3,000	-
Balance available, EOY.....	<u>2,107</u>	<u>-</u>	<u>755</u>	<u>-</u>	<u>961</u>	<u>-</u>	<u>-148</u>	<u>-</u>	<u>813</u>	<u>-</u>
Total Available.....	<u>6,542</u>	<u>-</u>	<u>8,962</u>	<u>-</u>	<u>3,924</u>	<u>-</u>	<u>-111</u>	<u>-</u>	<u>3,813</u>	<u>-</u>
Recoveries.....	-1,883	-	-3,680	-	-	-	-	-	-	-
Balance available, SOY.....	<u>-1,484</u>	<u>-</u>	<u>-2,107</u>	<u>-</u>	<u>-755</u>	<u>-</u>	<u>-206</u>	<u>-</u>	<u>-961</u>	<u>-</u>
Total Appropriations.....	<u>3,175</u>	<u>-</u>	<u>3,175</u>	<u>-</u>	<u>3,169</u>	<u>-</u>	<u>-317</u>	<u>-</u>	<u>2,852</u>	<u>-</u>

ANIMAL AND PLANT HEALTH INSPECTION SERVICE

Justification of Increases and Decreases Buildings and Facilities

A decrease of \$317,000 for the Buildings and Facilities account (\$3,169,000 available in 2017).

The Buildings and Facilities (B&F) program addresses APHIS' facility needs to support the Agency's mission of protecting the health and value of agriculture and natural resources nationwide. The program's goal is to systematically address the Agency's needs for maintaining and repairing existing facilities, as well as constructing new facilities. Projects are driven by APHIS' Facility Condition Index (FCI), which is the sum of the costs of needed repairs divided by the replacement value of the facility. APHIS strives to maintain an FCI for facilities assessed of less than 0.10, meaning that the cost to make repairs is less than 10 percent of the estimated replacement value for the facilities.

This program serves a vital role in maintaining APHIS' facilities so that employees can continue to carry out their responsibilities in a safe and efficient manner. The commitment to maintain the condition and functionality of facilities is an ongoing process that demands significant management of capital resources. This program creates private sector jobs through the construction projects it carries out.

The program manages the implementation of scheduled facility improvements, security, construction, and maintenance. Contractors perform inspections and tests to substantiate that the supplies or services furnished under the contract conform to contract requirements. In addition, a design firm validates that the work aligns with approved plans and specifications. APHIS typically identifies on-site certified personnel to perform the contracting services. The Agency's engineering staff attends on-site construction progress meetings, and APHIS collects performance data through contractor reports and on-site verification.

As of October 2016, there are 39 active projects supported by APHIS' B&F Appropriation. In FY 2016, APHIS awarded 28 design/construction tasks associated with projects at a cost of approximately \$8.3 million, and completed 5 construction projects. Approximately 80 percent of these repairs were major renovations and 20 percent were minor repairs. For example, APHIS completed major renovation projects in support of the Agency's plant health sterile fruit fly rearing efforts. The program modified the sewage system to address waste issues at the Mediterranean fruit fly rearing facility located on the Moore Air Base in Mission, Texas, and upgraded fire protection measures at the Mexican fruit fly facility in Reynosa, Mexico. The Agency will use funds to continue conducting the necessary maintenance, repairs, and renovations identified during the facility condition assessments at approximately 13 APHIS facilities.

Approximately 99 percent of the B&F funding supports indefinite delivery, indefinite quantity contracts (e.g., architect and engineering support) and construction contracts. These contracts, which provide for an indefinite quantity of supplies or services during a fixed time period, help streamline the contract process and expedite service delivery. The remaining funds support operating costs.

Without the B&F program, APHIS would be unable to centrally coordinate and prioritize these types of projects. As a result, necessary maintenance and repairs to facilities would not occur unless funded at the expense of an Agency operational activity. This would create program delays, possible environmental consequences, and noncompliance with State and local laws and codes. In addition, it would accelerate the pace of the deferred maintenance backlog and associated cost, which currently exceeds \$117 million. Many of APHIS' facilities have specialized functions that support various Federal, State, and local government programs, stakeholders, and customers. B&F projects ensure that APHIS' programs can be conducted at safe, secure, sound, sustainable, and high-performance facilities that support APHIS' mission.

Reduction related to facility repairs (-\$317,000)

At the requested level, APHIS will reduce funding available for the maintenance and repair of its facilities. The program will continue to centrally coordinate and prioritize facility improvement projects using the remaining available funds.

ANIMAL AND PLANT HEALTH INSPECTION SERVICE

Buildings and FacilitiesGeographic Breakdown of Obligations and Staff Years (SYs)
(Dollars in thousands)

State/Territory	<u>2015 Actual</u>		<u>2016 Actual</u>		<u>2017 Estimate</u>		<u>2018 President's Budget</u>	
	Amount	SYs	Amount	SYs	Amount	SYs	Amount	SYs
<u>United States:</u>								
Arizona.....	-	-	\$55	-	\$32	-	\$86	-
California.....	-	-	-	-	-	-	71	-
Colorado.....	-	-	106	-	-	-	100	-
Florida.....	\$43	-	268	-	77	-	540	-
Hawaii.....	-	-	414	-	-	-	-	-
Idaho.....	25	-	-	-	-	-	-	-
Iowa.....	3,585	-	4,110	-	1,087	-	601	-
Maryland.....	-	-	-	-	-	-	90	-
Massachusetts.....	184	-	-	-	35	-	46	-
Mississippi.....	22	-	-	-	-	-	71	-
Montana.....	18	-	100	-	-	-	-	-
New York.....	2	-	498	-	14	-	138	-
North Carolina.....	0	-	17	-	18	-	-	-
Texas.....	240	-	711	-	1,700	-	1,257	-
Utah.....	184	-	-	-	-	-	-	-
Wyoming.....	31	-	623	-	-	-	-	-
Puerto Rico.....	30	-	-	-	-	-	-	-
Mexico.....	71	-	1,305	-	-	-	-	-
Total direct obligations	4,435	-	8,207	-	2,963	-	3,000	-

ANIMAL AND PLANT HEALTH INSPECTION SERVICE

Buildings and Facilities

Classification by Objects

(Dollars in thousands)

		2015	2016	2017	2018
		Actual	Actual	Estimate	President's Budget
Other Objects:					
25	Other Services.....	\$4,435	\$8,207	\$2,963	\$3,000
	Total, other objects.....	4,435	8,207	2,963	3,000
	Total direct obligations.....	4,435	8,207	2,963	3,000

ANIMAL AND PLANT HEALTH INSPECTION SERVICE

STATUS OF MAJOR CONSTRUCTION PROJECTS

Buildings and Facilities

The Buildings and Facilities (B&F) appropriation funds major, nonrecurring, construction projects in support of program activities, and recurring construction, alterations, and repairs of existing facilities. These projects and activities allow other programs and employees to focus on APHIS' mission of protecting the health and value of agriculture, and natural resources nationwide. The goal of the B&F program is to systematically address the Agency's needs for maintaining and repairing existing facilities, as well as constructing new facilities. APHIS assigns each facility with a Facility Condition Index (FCI), which is the sum of the costs of needed repairs divided by the replacement value of the facility, and uses the FCI scores to determine each year's projects. APHIS strives to maintain an FCI for facilities assessed of less than 0.10, meaning that the cost to make repairs is less than 10 percent of the estimated replacement value for the facilities.

This program serves a vital role in maintaining APHIS' facilities so that employees can carry out their responsibilities safely and efficiently. Maintaining the condition and functionality of these facilities is an ongoing process that demands significant management of capital resources. This program creates private sector construction jobs. If the B&F program were not funded, APHIS would be unable to centrally coordinate and prioritize these projects. As a result, all necessary maintenance and repairs to facilities would have to be funded at the expense of an Agency operational activity. This could create program delays, possible environmental consequences, and could jeopardize human health and safety. In addition, it would accelerate the pace of the deferred maintenance backlog and associated cost, which currently exceeds \$97 million. Many of APHIS' facilities have specialized functions that support various Federal, State, and local government programs, as well as stakeholders and customers. B&F projects ensure that APHIS' programs can be conducted at safe, secure, sound, sustainable and high-performance facilities that support the Agency's mission.

APHIS' B&F program maximizes its efficiency through comprehensive construction projects. The Agency spends approximately 99 percent of its funding on indefinite delivery, indefinite quantity, and construction contracts. These contracts, which provide for an indefinite quantity of supplies or services during a fixed time period, help streamline the contract process and expedite service delivery. Remaining B&F funds support information technology projects (i.e., Facilities Capital Planning and Management software).

The following provides a status of ongoing major construction projects and program efforts as of October 2016.

Summary of Current Projects

The B&F program implements scheduled improvements, and conducts security, construction, and maintenance activities. Contractors perform inspections and tests to substantiate that the supplies or services furnished under the contract conform to contract requirements. In addition, a third party design firm validates that the work aligns with approved plans and specifications. APHIS typically identifies on-site certified personnel to perform the Contracting Officer's Representative services. The Agency's engineering staff attends construction progress meetings in person, on-site, or virtually and APHIS collects performance data through contractor reports and on-site verification. As of October 2016, there are 39 active projects supported by APHIS' B&F Appropriation. In FY 2016, APHIS awarded 28 design/construction tasks associated with projects at a cost of approximately \$8.3 million, and completed 5 construction projects. Approximately 80 percent of these repairs were major renovations and 20 percent were minor repairs. Among these projects is the Moore Air Base Sanitary Sewer Design Modification in Mission, Texas, and the Mexican Fruit Fly Exclusion Facility Fire Protection Upgrade Project in Reynosa, Mexico.

Facilities Condition Assessment

In FY 2000, APHIS began a comprehensive Facilities Condition Assessment program to: better understand the condition of facilities, strategically maintain them by identifying deficiencies and funding needs, stabilize the facilities repair backlog, predict maintenance needs, and implement financial management and capital asset improvement efforts. The consulting firm tasked with assessing APHIS' facilities has an automated process for assessing the relative condition of assets, and facilitating comparisons both within and among facilities. The

consulting firm calculates an FCI for each facility by program and Agency. At the end of FY 2016, the FCI for the 45 facilities assessed was 0.13, meaning the cost to correct currently identified and anticipated deficiencies is 13 percent of the estimated replacement value for the 45 facilities. Of these 45 facilities, 33 scored above a 0.10 and 12 scored below a 0.10. The Agency strives to maintain an FCI below 0.10.

National Wildlife Research Center (NWRC) Field Station & Wildlife Services State Director's Office Modernization Project, Gainesville, Florida

The 2011, NWRC Research Needs Assessment found that Federal, State, and private respondents each ranked feral swine as their top priority research need. The laboratory at the Florida Field Station addressing feral swine and other wildlife diseases does not have the adequate space, infrastructure, or capacity to support current activities and emerging research needs. Specifically, significant renovations are needed to address the identified deficiencies (e.g., asbestos-containing materials, laboratory exhaust systems, fire alarm and suppression), to bring the facility into compliance with the Americans with Disability Act, and modernize business practices within the facility. The facility's current FCI is 0.20. In FY 2013, APHIS tasked an architectural and engineering firm with developing a program of requirements for this modernization project. APHIS awarded a Design-Build Construction contract in FY 2014, and work continued under this contract through FY 2016. The Agency anticipates that this project will be complete during the first quarter of FY 2017.

National Centers for Animal Health, Building #400, Ames, Iowa

The National Centers for Animal Health, Building #400 was originally scheduled for deconstruction in FY 2015. However, APHIS postponed its deconstruction while the Agency used the facility to support its response to the notifiable avian influenza outbreak. The building housed Agency and contractor personnel and served as an active command post in the second half of FY 2015. APHIS awarded the deconstruction contract in FY 2016. The Agency's deconstruction of Building #400 supports the Office of Management and Budget policy to "reduce the Federal real property footprint." The full deconstruction is anticipated to be completed during the third quarter of FY 2017.

ANIMAL AND PLANT HEALTH INSPECTION SERVICE

Summary of Budget and Performance

The Secretary of Agriculture established the Animal and Plant Health Inspection Service (APHIS) on April 2, 1972, under the authority of Reorganization Plan No. 2 of 1953 and other authorities. The mission of the Agency is to protect the health and value of U.S. agricultural and other plant and animal resources, vulnerable to pests, diseases, predation, natural disasters, or inhumane treatment. In carrying out this mission, the role of APHIS is to collectively do what individuals and individual organizations cannot do; for example, responding to animal and plant pest and disease emergencies, addressing widespread pests and diseases, and dealing with foreign governments to mitigate trade issues and barriers.

Together with its stakeholders, APHIS protects the health of livestock, poultry, and crops from pests and diseases. The Agency also helps to promote animal welfare, mitigates agricultural damage caused by wildlife, defends the environment from invasive species, regulates the movement and release of specific genetically engineered organisms, protects natural resources, and ensures public health and safety.

The Department will be revising the USDA Strategic Plan later in the spring and expects to release it with the FY 2019 President's Budget.

Key Performance Measures and Targets in Support of Pest and Disease Exclusion:

Key Outcome: Reduce or mitigate the impact of agricultural pests and diseases by preventing the entry or spread of agricultural pests and diseases.								
Performance Measure	2011 Actual	2012 Actual	2013 Actual	2014 Actual	2015 Actual	2016 Actual	2017 Target	2018 Target
Export losses prevented by the APHIS Screwworm program on an annual basis	N/A	\$53 million	\$53 million	\$53 million	\$54 million	\$54 million	\$54 million	\$54 million
Number of sterile Medfly pupae produced weekly	1 billion	0.8 billion	1 billion	1 billion	1 billion	1.04 billion	1 billion	1 billion

Selected Past Accomplishments Toward Achievement of the Key Outcome:

- Responded to eight exotic fruit fly outbreaks in FY 2016, managing and reducing the area under quarantine related to the outbreaks from 2,411 square miles to 797 square miles.
- Inspected nearly 17,000 imported plant shipments containing 1.54 billion plant units (cuttings, whole plants, or other propagative materials) and approximately 1.27 million kilograms of seeds at APHIS Plant Inspection Stations in FY 2016.

Selected Accomplishments Expected at the FY 2018 Proposed Resource Level:

- Continue to work with the U.S.-Panamanian Commission to maintain the screwworm barrier at the Darien gap of Panama.
- Continue to work with the Governments of Mexico and Guatemala to maintain a barrier against the northward spread of Medfly.

Key Performance Measures and Targets in Support of Safe Agricultural Trade:

Key Outcome: Resolve sanitary and phytosanitary (SPS) trade barriers, improve international animal and plant health standards, and collaborate with U.S. and foreign partners to build capacity and prevent agricultural pest and disease threats from reaching the United States.

Performance Measure	2011 Actual	2012 Actual	2013 Actual	2014 Actual	2015 Actual	2016 Actual	2017 Target	2018 Target
Value of expanded and retained markets, new market access, and trade facilitated	\$1.7 billion	\$2.6 billion	\$2.9 billion	\$2.7 billion	\$2.5 billion	\$2.7 billion	\$2.6 billion	\$2.6 billion
Number of shipments released (in foreign ports of entry) as a result of APHIS intervention	300	324	279	273	293	213	275	275

Selected Past Accomplishments Toward Achievement of the Key Outcome:

- Negotiated and resolved SPS trade-related issues involving U.S. agricultural exports with an estimated market value of \$2.7 billion.
- Secured the release of 213 shipments of U.S. cargo held up at foreign ports-of-entry, which prevented the rejection of shipments worth more than \$22.7 million.

Selected Accomplishments Expected at the FY 2018 Proposed Resource Level:

- Continue to resolve SPS trade-related issues involving U.S. agricultural exports to facilitate trade.
- Continue to provide the necessary documentation in support of U.S. cargo held up at foreign ports-of-entry.

Key Performance Measures and Targets in Support of Domestic Animal and Plant Health:

Key Outcome: Reduce or mitigate the impact of agricultural pests and diseases as well as wildlife damage by providing tools and services – including diagnostic, detection, control, management, and enforcement methods and programs – to protect and enhance animal and plant health.								
Performance Measure	2011 Actual	2012 Actual	2013 Actual	2014 Actual	2015 Actual	2016 Actual	2017 Target	2018 Target
Value of livestock, poultry, and specialty crops protected by APHIS animal health and specialty crop pests programs	\$165 billion	\$165 billion	\$165 billion	\$191 billion	\$193 billion	\$193 billion	\$193 billion	\$193 billion
Number of National Animal Health Laboratory Network participants able to electronically message diagnostic results to APHIS (out of 58)	N/A	N/A	N/A	10	16	24	30	35

Key Outcome: Reduce or mitigate the impact of agricultural pests and diseases as well as wildlife damage by providing tools and services – including diagnostic, detection, control, management, and enforcement methods and programs – to protect and enhance animal and plant health.								
Performance Measure	2011 Actual	2012 Actual	2013 Actual	2014 Actual	2015 Actual	2016 Actual	2017 Target	2018 Target
Value of forest products and ecosystem services protected by the Tree & Wood Pests Program (based on acreage protected)	N/A	\$1.19 trillion	\$1.19 trillion	\$1.19 trillion	\$1.19 trillion	\$1.19 trillion	\$1.19 trillion	\$1.19 trillion
Percent of eradication completed in NJ NY MA OH	N/A	95 63 15 1	100 74 18 1	100 76 25 3	100 82 30 8	100 85 36 14	100 86 48 22	100 87 49 25
Percent of high-risk plant pests (as identified on the Priority Pest List) for which early detection surveys were conducted in the United States	86%	79%	86%	88%	93%	94%	93%	93%
Production value of cotton directly protected by APHIS' cotton pest programs	N/A	\$1.7 billion	\$1.7 billion	\$1.7 billion	\$1.6 billion	\$1.6 billion	\$1.6 billion	\$1.6 billion
Cumulative number of biotechnology products deregulated by USDA based on scientific determinations that they do not pose a plant risk to agriculture	87	93	102	109	117	124	127	129
Value of head of cattle, sheep, and goats protected by APHIS' wildlife damage management programs	N/A	N/A	\$2.3 billion	\$2.3 billion	\$2.5 billion	\$2.5 billion	\$2.5 billion	\$2.5 billion

Key Outcome: Reduce or mitigate the impact of agricultural pests and diseases as well as wildlife damage by providing tools and services – including diagnostic, detection, control, management, and enforcement methods and programs – to protect and enhance animal and plant health.								
Performance Measure	2011 Actual	2012 Actual	2013 Actual	2014 Actual	2015 Actual	2016 Actual	2017 Target	2018 Target
Square acres under agreement for feral swine removal	N/A	N/A	N/A	110	130	157	157	157

Selected Past Accomplishments Toward Achievement of the Key Outcome:

- Eradicated a New World screwworm infestation from Florida in March 2017. This was the first infestation in the United States in more than 30 years, and APHIS used sterile insect technique to disrupt normal reproduction cycles and eliminate the infestation within seven months of its detection. The pest poses serious threats to livestock and can affect any mammal.
- Eradicated the European grapevine moth, a serious pest of grapes, from California after an intensive, 6-year effort with the California Department of Food and Agriculture and growers.
- Continued biological control efforts targeting emerald ash borer. Biological control provides a promising strategy, using several species of parasitic wasps. In FY 2016, the program conducted trial releases of 1 million parasitic wasps in 24 States.
- Conducted surveys for the Asian longhorned beetle over more than 30,000 acres. Surveys allow the program to determine where control actions are necessary or confirm the effectiveness of previous control actions.
- Monitored and protected 661 million acres of rangeland worth a total of nearly \$8.8 billion through conducting annual grasshopper population surveys and treating areas with outbreak level populations.
- Conducted more than 1,157 beaver damage management projects in South Carolina, reducing damage by an estimated \$1.7 million.
- Supported approximately 35 projects to develop or enhance tools to combat huanglongbing (HLB) or the Asian citrus psyllid (ACP) in citrus groves through the HLB Multi-Agency Coordination group between FY 2014 and FY 2016. An example includes tripling the production and release of ACP-killing wasps, from 4 million to 12 million per year. These wasps have reduced ACP populations by more than 50 percent in Texas and as much as 99 percent around California release sites.
- Implemented a National Feral Swine Damage Management program in 41 States, through a cooperative approach to manage or eliminate populations of feral swine that damage agriculture, natural resources, and property, and that threaten human health and safety.
- In FY 2016, APHIS made 7 determinations of regulatory status for biotechnology petitions, meeting its target and bringing the cumulative total of deregulations to 124.

Selected Accomplishments Expected at the FY 2018 Proposed Resource Level:

- Continue monitoring for the European grapevine moth in California's grape producing areas to ensure that any reemergence of these damaging moths was detected quickly.
- Continue addressing Asian longhorned beetle outbreaks in Massachusetts, Ohio, and New York.
- Continue conducting surveys and treatments to successfully manage grasshoppers and Mormon crickets.
- Continue implementation of new tools to combat HLB and support continued citrus production in the United States.
- Continue enhancing swine surveillance capabilities to ensure that outbreak of new and emerging diseases can be detected quickly.
- APHIS expects the cumulative number of determinations of non-regulated status to increase from 124 in FY 2016 to 129 in FY 2018.
- USDA expects to complete the remaining backlogged petitions in FY 2017 and meet its target timelines for all petitions submitted in FY 2017 and FY 2018.

Key Performance Measures and Targets in Support of Animal Welfare:

Key Outcome: Provide modern and collaborative tools and services to protect the welfare of animals.								
Performance Measure	2011 Actual	2012 Actual	2013 Actual	2014 Actual	2015 Actual	2016 Actual	2017 Target	2018 Target
Percent of licensees inspected and registrants in substantial compliance of the Animal Welfare Act	98%	95%	96%	96%	95%	96%	96%	96%
Percent of facilities determined to be in substantial compliance at the first unannounced inspection after receiving a license (conducted 6-9 months later)	N/A	N/A	N/A	97%*	95%	98%	95%	95%

*APHIS identified a data calculation error in reporting the FY 2014 figure previously. This figure has been updated from 63 percent.

Selected Past Accomplishments Toward Achievement of the Key Outcome:

- Maintained the Agency's high average compliance rate for regulated entities under the Animal Welfare Act (AWA).
- Continued to protect the well-being of over 2.5 million animals covered under the AWA.
- Registered 36 Agricultural Research Service (ARS) research facilities under the AWA.

Selected Accomplishments Expected at the FY 2018 Proposed Resource Level:

- Continue to identify opportunities to gain consistency and improvement during AWA inspections.
- Continue to work with ARS to ensure ARS registered facilities are in compliance with the AWA.
- Continue to conduct outreach and engage with horse industry officials to ensure compliance with the HPA.

ANIMAL AND PLANT HEALTH INSPECTION SERVICE

Annual Plan and Performance Report Information

APHIS measures the cumulative number of biotechnology products deregulated based on scientific determinations that they do not pose a plant pest risk to agriculture. When biotechnology developers can provide scientific information that demonstrates their GE organism is not a risk as a plant pest, they can request APHIS to remove a GE organism from regulation. APHIS' reviews of the GE organism include analyzing current, publicly available scientific information and the technical data provided by the applicant. When considering these requests, APHIS completes a scientific plant pest risk assessment, as well as an environmental review in compliance with the National Environmental Policy Act. If APHIS determines a GE organism does not pose a plant pest risk, the Agency makes a determination of nonregulated status (deregulation), and the organism can be planted and moved without APHIS' oversight. Following process improvements implemented in 2011-2012, APHIS has reduced the time required to complete the analyses for the deregulations significantly and has exceeded targets for the number of deregulations for the past 4 years.

Analysis of Results

In FY 2016, APHIS reviewed and deregulated seven petitions: five corn varieties, one potato, and one apple. The cumulative total of APHIS deregulations is 124. APHIS completed the seven petitions in an average of 353 days, reducing the time by 416 days (from an average of 769 days in FY 2015), and exceeding our target of 460 days. APHIS continues to provide the public with opportunities to review and comment on the petition request and the scientific assessments of the GE organisms in the *Federal Register*.

Annual Performance Indicator and Trends	2012	2013	2014	2015	Target	Actual	Result	Target	Target
					2016			2017	2018
Cumulative number of biotechnology products deregulated by USDA based on scientific determinations that they do not pose a plant risk to agriculture	93	102	109	117	122	124	Exceeded	127	128
Allowable Data Range for Met: Exceeded Target is if Actual > 122; Met Target is if Actual = 122; Unmet Target is if Actual < 122									
Data Assessment of Performance Measure									
Data Source – USDA publishes a notice announcing its determination of nonregulated status in the <i>Federal Register</i> . APHIS also maintains a table of the petitions on the Agency's website.									
Completeness of Data - USDA publishes a <i>Federal Register</i> notice announcing its determination of nonregulated status for a GE organism, after its review and determination that the organism is safe for use in the environment. USDA maintains a website that is updated with the latest information reflected in the <i>Federal Register</i> . This data is complete.									
Reliability of Data - During the petition process, there are two opportunities for public involvement – once when the petition is complete through the <i>Federal Register</i> process and a second time after the associated environmental documents and plant pest risk documents are developed and published in the <i>Federal Register</i> . If the Department determines nonregulated status for the GE organism, the information is shared on the website to ensure transparency of regulatory decision-making. APHIS closely tracks the publication of determinations in the <i>Federal Register</i> to ensure that we are correctly reporting an accurate count. The number of determinations is published in the <i>Federal Register</i> and available for others to verify. The APHIS website correlates to the <i>Federal Register</i> publications and serves as a consolidated reference and a cross-check for determination status and counting purposes. This data is reliable.									

Annual Performance Indicator and Trends	2012	2013	2014	2015	Target	Actual	Result	Target	Target
					2016			2017	2018
Quality of Data – This data is used by internal managers and external stakeholders as authoritative sources of information. For each petition submitted, USDA conducts a thorough scientific analysis to determine whether the GE organism poses a plant pest risk. USDA also prepares additional environmental analyses to evaluate the possible impacts of the GE organism on the human environment. This is quality data.									

Accomplishments Expected at the FY 2018 Proposed Resource Level/Challenges for the Future

In FY 2018, APHIS will continue to devote resources to petition reviews and expects to meet its improved target timelines for any petitions (not requiring an environmental impact statement) submitted during the fiscal year. APHIS expects to increase determinations of non-regulated status from 124 in FY 2016 to 128 in FY 2018.

Biotechnology has a wide diversity of stakeholders that hold strong opinions about biotechnology and how to regulate GE products. New petitions received this fiscal year and in the future will be processed as expected unless an unforeseen issue arises that may cause interference by other high priority issues that are resource intensive. In the rapidly changing field of biotechnology, USDA is challenged to adapt and find new ways to accomplish the regulatory work, while not inhibiting the development of new products produced with new technologies. As GE organisms are developed in other countries and are imported into the United States, it is important to have adequate domestic regulatory systems in place to address their safety. In turn, it is important to coordinate with other countries to allow exports of GE products from the United States.

Other Indicators

APHIS ensures developers, growers, and others take the important steps to prevent unauthorized releases of regulated GE organisms. APHIS requires developers to comply with notification performance standards or permit requirements to help ensure the GE organisms are confined and do not persist in the environment. To ensure that GE organisms meet standards outlined in the permit or notification, APHIS inspects fields, equipment, and other associated facilities. In FY 2016, APHIS and the States (authorized by APHIS) conducted nearly 800 site inspections, 55 of which were unannounced inspections. Approximately 97 percent of those inspected in FY 2016 were in compliance with APHIS biotechnology regulations. In FY 2016, APHIS implemented an improved risk-based inspection selection process and expanded permit inspection oversight. Accordingly, APHIS expects the compliance rate will decrease in FY 2017 and FY 2018, based on inspecting additional high-risk sites. After several years of focus on high-risk sites, APHIS expects the compliance rate to increase as the Agency works with developers to ensure adequate systems are in place to meet field testing requirements designed to prevent the release of GE organisms undergoing testing.

Performance Measure	2011 Actual	2012 Actual	2013 Actual	2014 Actual	2015 Actual	2016 Actual	2017 Target	2018 Target
Percent of field release sites in compliance with biotechnology regulations designed to protect agriculture from plant pests	95%	98%	99%	99%	96%	97%	90%	90%

Performance Measure	FY 2010	FY 2010
	Agency Target	ACTUAL
Percent of Stakeholders who find outreach activities useful	86%	still researching final number
Percent of licensees and registrants in substantial compliance of the AWA.	95%	95%
Percent of licensees and registrants with significant repeat violations of the AWA	4%	1%
Percent of repeat violators reinspected for compliance of the AWA within the prescribed timeframe to ensure the humane treatment of animals.	75%	61%
Number of inspections conducted annually.	16,000	14,023
Average cost of an Animal Welfare inspection.	\$1,201 (used \$21,979,000 starting point. Net to program after 12.5% is \$19,231,625.)	\$1363 (used \$19,103,472 - net to program Final Allocation update NOT including \$2.5M in enforcement funding)
Average cost of issuing licensing and registrations	\$625	\$665
Percent increase in the number of enforcement actions for Class A licensed breeders for dogs.	50% (297)	336 (69%); using 198 as baseline
	4050 - no expected increase from FY 2009 due to RBIS change not being in effect (frequency of inspections) as well	

Percent increase in the number of inspections of Class A licensed breeders for dogs.	as new employees not performing independent inspections until around Oct 1	3264
Percent increase in violations cited as direct violations.	3% (344)	438 (35%); using 324 as baseline

Risk Based Inspection System

Animal Care (AC) uses a risk-based inspection system to support its focused inspection strategy, allowing more frequent and in-depth inspections at facilities with a higher risk of animal welfare concerns, and fewer at those that are consistently in compliance. The system, initiated in 1998, uses several objective criteria, including but not limited to past compliance history, to determine the minimum inspection frequency at each licensed and registered facility. Facilities meeting the criteria for low-frequency intervals are subject to inspection once every year, or every 2–3 years, or in some cases only when we receive a complaint. Facilities determined to require high-frequency inspections are subject to inspection as often as every 3 months. Those in the middle are inspected about once per year. Registered research facilities are inspected at least once per year, as required by the AWA. With this system, AC has been able to provide more in-depth inspections and improve the Agency's interactions with licensees and registrants—an approach that APHIS firmly believes makes better use of AC's inspection resources.

After the Inspection: If inspectors discover conditions or records that are not in compliance with the regulations, AC typically establishes a deadline for correcting these items and provides it in the inspection report unless the noncompliance is a repeat noncompliance, because for repeat noncompliance, the original correction deadline has already passed, and no additional time is given. Inspectors are required to reinspect within 45 days any facilities where areas of noncompliance were found that have, or are likely to have, a serious impact on the well-being of the animals. In cases of unrelieved suffering, AC may confiscate the animals or arrange for their placement elsewhere. BETWEEN 2010-2015, AC, with the assistance of IES and OGC, either confiscated or facilitated the voluntary surrender of over 11,000 animals. The species involved include dogs, farm animals, hedge hogs, hamsters, guinea pigs, black bears, lions, tigers, rabbits, cats, chimpanzees, cougars, and alpacas. AC also assisted State, county or local agencies with a seizure or surrender.

FY 2010 AWA Inspections

Certificate Type	Total Regulated Facilities	Compliance Inspections	Pre-License/ Pre-Registration Inspections	Attempted
BREEDER	3296	3516	544	722
CARRIER	284	783	0	21
DEALER	939	1215	208	164
EXHIBITOR	2764	3693	535	463
FEDERAL RESEARCH FACILITY	53	2	0	0
INTERMEDIATE HANDLER	260	188	2	15
REGISTERED EXHIBITOR	9	10	0	1
RESEARCH FACILITY	1104	1683	2	40
VETERANS ADMINISTRATION HOSPITAL	73	2	0	0
Not Licensed	N/A	89	102	3
All Facilities	8782	11181	1393	1429

Total Number of Inspections Performed FY 2005-2010

Fiscal Year (FY)	Number of Inspections
2010	14,003
2009	13,877
2008	15,372
2007	18,343
2006	20,311
2005	18,290

2015 Explanatory Notes
Animal and Plant Health Inspection Service

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ANIMAL AND PLANT HEALTH INSPECTION SERVICE

Purpose Statement

The Secretary of Agriculture established the Animal and Plant Health Inspection Service (APHIS) on April 2, 1972, under the authority of Reorganization Plan No. 2 of 1953 and other authorities. The mission of the Agency is to protect the health and value of American agriculture and natural resources.

Together with its stakeholders, APHIS promotes the health of animal and plant resources to facilitate their movement in the global marketplace and to ensure abundant agricultural products and services for U.S. customers. APHIS strives to assure its stakeholders that it is on guard against the introduction or re-emergence of animal and plant pests and diseases that could limit agricultural production and damage export markets. At the same time, APHIS also monitors and responds to potential acts of agricultural bio-terrorism, invasive species, diseases of wildlife and livestock, and conflicts between humans and wildlife. The Agency also manages and resolves sanitary (animal) and phytosanitary (plant) trade barriers and addresses certain issues relating to the humane treatment of animals. Finally, APHIS ensures that biotechnology-derived agricultural products are safe for release in the environment.

APHIS' mission is carried out using three major areas of activity, as follows:

Safeguarding and Emergency Preparedness/Response

In addition to APHIS' domestic monitoring, APHIS monitors plant and animal health throughout the world and uses the information to set effective agricultural import policies to prevent the introduction of foreign plant and animal pests and diseases. APHIS and the Department of Homeland Security cooperate to ensure that these policies are enforced at U.S. ports of entry. These policies prevent the entry of many invasive pests, including crop, pollinator, woodland, and livestock pests. APHIS also develops and conducts pre-clearance programs to ensure that foreign agricultural products destined for the United States do not present a risk to U.S. agriculture. The Agency engages in cooperative programs to control pests of imminent concern to the United States and to strengthen foreign plant protection and quarantine organizations. APHIS certifies plants and plant products for export to the United States and regulates imports and exports of designated endangered plant species. APHIS assists U.S. exporters and the Foreign Agricultural Service in revising foreign plant and animal import regulations to encourage and increase U.S. agricultural exports.

Should a pest or disease enter the United States, APHIS works cooperatively with other Federal, State, and industry partners to conduct plant and animal health monitoring programs to rapidly diagnose them and determine if there is a need to establish new pest or disease management programs. APHIS, in conjunction with States, industry, and other stakeholders, protects American agriculture by eradicating harmful pests and diseases or, where eradication is not feasible, by minimizing their economic impact. The Agency monitors endemic pests and diseases through surveys to detect their location and through inspection to prevent their spread into non-infested parts of the country.

The Agency maintains a cadre of trained professionals prepared to respond immediately to potential animal and plant health emergencies. Program personnel investigate reports of suspected exotic pests and diseases and take emergency action if necessary. To facilitate these efforts, APHIS develops pathway studies and thoroughly investigates the progression of outbreaks to determine the origin of plant and animal pests and diseases. APHIS also actively engages State, Tribal, and local governments, and industries to advance their emergency preparedness and response capabilities.

Through its Wildlife Services program, APHIS protects agriculture from detrimental animal predators through identification, demonstration, and application of the most appropriate methods of control. APHIS also develops methods to control animals and pests that are detrimental to agriculture, wildlife, and public safety. The Agency's regulatory structure brings the benefits of genetic research to the marketplace, while protecting against the release of potentially harmful organisms into the environment. APHIS also conducts diagnostic laboratory activities that support the Agency's veterinary disease prevention, detection, control, and eradication programs. The Agency also provides and directs technology development in coordination with other groups in APHIS to support plant protection programs of the Agency and its cooperators at the State, national, and international levels.

Safe Trade and International Technical Assistance

Sanitary (animal) and phytosanitary (plant) (SPS) regulations can have a significant impact on market access for the United States as an exporter of agricultural products. APHIS plays a central role in resolving technical trade issues to ensure the smooth and safe movement of agricultural commodities into and out of the United States. This is done through negotiating access to new markets, preserving existing markets, and expanding existing markets. APHIS' role is to negotiate animal and plant health certification requirements, assist U.S. exporters in meeting foreign regulatory requirements, ensure requirements are proportional to risk without being excessively restrictive, and provide any necessary technical information to support the safety of U.S. agricultural products destined for foreign markets.

APHIS helps to protect the United States from emerging plant and animal pests and diseases while meeting obligations under the World Trade Organizations SPS agreement by assisting developing countries in improving their safeguarding systems. APHIS collaborates with other Federal agencies including the Foreign Agricultural Service, the U.S. Agency for International Development, the State Department, and the Office of the U.S. Trade Representative, to implement technical and regulatory capacity building projects with shared resources. APHIS develops and implements programs designed to identify and reduce agricultural pest and disease threats while still outside of U.S. borders, to enhance safe agricultural trade, and to strengthen emergency response preparedness.

Animal Welfare

The Agency conducts regulatory activities to ensure the humane care and treatment of certain animals and horses as required by the Animal Welfare Act of 1966 as amended (7 U.S.C. 2131-2159), and the Horse Protection Act of 1970 as amended (15 U.S.C. 1821-1831). These activities include inspection of certain establishments that handle animals intended for research, exhibition, and sale as pets, and monitoring of certain horse shows.

Statutory Authorities

APHIS operates under the following authorities:

General:

7 U.S.C. 450	Talmadge-Aiken Act (cooperation with States)
21 U.S.C. 136-136a	User Fees
31 U.S.C. 9701	User Fees
7 U.S.C. 3291a(3)	Authority to provide technical assistance and training
7 U.S.C. 5680	Farm Security and Rural Investment Act of 2002-reporting on SPS issues and trade barriers
7 U.S.C. 5925	Food, Agriculture, Conservation, and Trade Act of 1990- authorizes funding for national honeybee pest survey
7 U.S.C. 2279g	Marketing Services; cooperative agreements

Animal Health

7 U.S.C. 8301-8317	The Animal Health Protection Act
49 U.S.C. 80502	28-Hour Law (feed, water, and rest for animals)
19 U.S.C. 1202, Part I, Item 100.01	Purebred animal duty-free entry
7 U.S.C. 1622	Section 203 of the Agricultural Marketing Act of 1946
7 U.S.C. 1624	Section 205 of the Agricultural Marketing Act of 1946
7 U.S.C. 430	Section 101(d) of the Organic Act of 1944

7 U.S.C. 3801-3813	Swine Health Protection Act
7 U.S.C. 851-855	Anti-hog cholera serum and hog cholera virus
7 U.S.C. 2274	Firearms (tick inspectors)
7 U.S.C. 1901 note	Transportation of Equines to Slaughter
21 U.S.C. 151-159	Virus-Serum-Toxin Act
21 U.S.C. 113a	Authority to establish research facilities for FMD and other diseases
21 U.S.C. 618	Section 18 of the Federal Meat Inspection Act, as amended, as it pertains to the issuance of certificates of condition of live animals for export
7 U.S.C. 8401	Title II, Subtitles B and C of the Agricultural Bioterrorism Act of 2002
7 U.S.C. 8318	Section 10504 of the Farm Security and Rural Investment Act of 2002 (training of accredited veterinarians)

Plant Health:

7 U.S.C. 7701-7772; and 7781-7786	Plant Protection Act
7 U.S.C. 1581-1611	Title III, Federal Seed Act
7 U.S.C. 2801 note; 2814	Federal Noxious Weed Act
7 U.S.C. 281-286	Honeybee Act
7 U.S.C. 2279e and 2279f	Title V of the Agricultural Risk Protection Act of 2000 (penalties for interfering with inspection animals)
16 U.S.C. 1531-1544	Endangered Species Act (plants)
16 U.S.C. 3371-3378	Lacey Act (importation or shipment of injurious mammals, birds, fish)
7 U.S.C. 8401 and 8411	Title II, Subtitle B, of the Agricultural Bioterrorism Protection Act of 2002
39 U.S.C. 3015	Alien Species Prevention and Enforcement Act of 1992

Wildlife Services:

7 U.S.C. 426-426d	Control of predatory and other wild animals

Animal Welfare:

7 U.S.C. 2131-2159	Animal Welfare Act
15 U.S.C. 1821-1831	Horse Protection Act

There were 5,434 permanent full-time employees and 1,947 other than permanent full-time employees as of September 30, 2013. Of the total, 1,157 full-time employees were located at headquarters. APHIS manages programs on a national basis through 2 regional offices and 439 field offices, including area offices, work stations, technical centers, and animal import centers. APHIS conducts much of its work in cooperation with State and local agencies, private groups, and foreign governments. APHIS performs work in the 50 States, Washington, D.C., Guam, Puerto Rico, Virgin Islands, Mexico, Central America, South America, the Caribbean, Western Europe, Australia, Asia, and Africa.

Each year, the Office of Inspector General (OIG) and the Government Accountability Office (GAO) audits selected programs to examine the efficiency of the programs and operations including program results, compliance with applicable laws and regulations, and fair presentation of financial reports. Audits in which APHIS has been involved during 2013 – 2014 include those listed below.

OIG Reports - Completed

None

OIG Reports – In Progress

#33601-12-CH	Effectiveness of the Smuggling, Interdiction, and Trade Compliance (SITC) Unit – Report issued in August 2012. As of July 24, 2013, 12 of the 13 APHIS recommendations have been implemented.
#33601-01-41	APHIS Oversight of Research Facilities - Audit started July 6, 2011.
#33601-02-41	APHIS Wildlife Services – Wildlife Damage Management Start Date – Audit started December 5, 2013.
#33601-01-23	Plant Protection and Quarantine Preclearance Program – Audit started May 22, 2012.
#33601-11-CH	USDA’s Controls Over Animal Import Centers. Report issued August 2010. As of May 15, 2013, 11 recommendations of the 12 APHIS recommendations have been implemented.
#33701-01-AT	Follow-up on APHIS’ Implementation of the Select Agent or Toxin Regulations - Report issued on November 2012. As of November 13, 2013, 10 of the 12 APHIS recommendations have been implemented.
#50601-01-32	Controls Over APHIS’ Introduction of Genetically Engineered Organisms – Audit started November 22, 2013.

GAO Reports - Completed

None

GAO Reports – In Progress

#361161	Horse Welfare - Audit report issued June 2011. 4 recommendations for APHIS are being implemented.
#361330	Agricultural Quarantine Inspections – Report issued in September 2012. 3 recommendations for APHIS are being implemented.
#440936	Training of Customs of CBP Officers – Audit started on November 24, 2010.

ANIMAL AND PLANT HEALTH INSPECTION SERVICE

Available Funds and Staff Years (SYs)
(Dollars in thousands)

Item	<u>2012 Actual</u>		<u>2013 Actual</u>		<u>2014 Estimate</u>		<u>2015 Estimate</u>	
	Amount	SYs	Amount	SYs	Amount	SYs	Amount	SYs
Salaries and Expenses:								
Discretionary Appropriations.....	\$816,534	4,679	\$758,519	4,617	\$821,721	4,695	\$834,341	4,682
Citrus Greening...a/.....	-	-	-	-	20,000	-	-	-
Sub-Total Disc Funding.....	816,534	4,679	758,519	4,617	841,721	4,695	834,341	4,682
Mandatory Appropriations: Farm Bill.....	55,000	15	47,450	15	58,360	15	62,500	15
Agricultural Quarantine Inspection User Fees:								
Total Collections.....	548,329	1,350	566,055	1,121	577,825	1,250	696,418	1,250
Buildings and Facilities:								
Discretionary Appropriations.....	3,200	-	2,928	-	3,175	-	3,175	-
Trust Funds:								
Mandatory Funding.....	10,186	150	13,071	50	9,000	50	9,000	50
Transfers In.....	21,405	2	-	-	-	-	-	-
Transfers Out.....	-351,305	-	-366,370	-	-362,526	-	-464,514	-
Adjusted Appropriations.....	1,103,349	6,196	1,021,653	5,803	1,127,555	6,010	1,140,920	5,997
Balance Available, SOY.....	224,547	144	208,559	141	225,642	151	240,223	129
Other Adjustments (NET).....	21,871	-	24,161	-	-95	-	-	-
Total Available.....	1,349,767	6,340	1,254,373	5,944	1,353,102	6,161	1,381,143	6,126
Lapsing Balances.....	-6,647	-26	-5,729	-	-	-	-	-
Balance Available, EOY.....	-208,559	-141	-225,642	-222	-240,223	-129	-234,018	-127
Subtotal Obligations, APHIS.....	1,134,561	6,173	1,023,002	5,722	1,112,880	6,032	1,147,125	5,999
<u>Obligations under other USDA appropriations:</u>								
Agricultural Marketing Service:								
for administrative and technical support.....	6,623	-	7,506	-	7,546	-	7,556	-
Agricultural Research Service:								
for administrative and technical support.....	3,611	-	4,337	-	4,360	-	4,366	-
Departmental Administration.....	-	-	1	-	1	-	1	-
Farm Service Agency:								
for administrative and technical support.....	25	-	25	-	25	-	25	-
Food Safety Inspection Service								
for administrative and technical support.....	60	-	487	-	490	-	490	-
Food & Nutrition Service:								
for administrative and technical support.....	-	-	13	-	13	-	13	-
Foreign Agricultural Service:								
for administrative and technical support.....	3,262	-	4,528	-	4,553	-	4,558	-
Forest Service:								
for administrative and technical support.....	451	-	463	-	465	-	466	-
Grain Inspection Service:								
for administrative and technical support.....	1,551	-	1,592	-	1,601	-	1,603	-
National Appeals Division:								
for administrative and technical support.....	10	-	16	-	16	-	16	-
National Institute of Food and Agriculture:								
for administrative and technical support.....	25	-	202	-	203	-	203	-
Natural Resource Conservation Service								
for administrative and technical support.....	1,350	-	2,175	-	2,187	-	2,189	-
Office of Departmental Management								
for administrative and technical support.....	-	-	90	-	90	-	91	-
Office of the Secretary:								
administrative and technical support.....	11	-	154	-	155	-	155	-
Total, Agriculture Appropriations.....	16,979	-	21,589	-	21,703	-	21,731	-

Item	<u>2012 Actual</u>		<u>2013 Actual</u>		<u>2014 Estimate</u>		<u>2015 Estimate</u>	
	Amount	SYs	Amount	SYs	Amount	SYs	Amount	SYs
<u>Other Federal Funds:</u>								
DOD, U.S. Air Force.....	5,588	-	5,874	-	5,906	-	5,913	-
DOD, U.S. Coast Guard.....	38	-	-	-	-	-	-	-
DOD, Air National Guard.....	1,777	-	2,702	-	2,716	-	2,720	-
DOD, U.S. Navy.....	3,612	-	3,706	-	3,726	-	3,731	-
DOD, U.S. Marine Corps.....	812	-	378	-	380	-	380	-
DOD, U.S. Army	1,681	-	822	-	826	-	827	-
DOD, U.S. Army Corp of Engineers	-	-	1,379	-	1,386	-	1,388	-
DOD, Defense Finance and Accounting Services.....	-	-	477	-	479	-	480	-
Department of Energy.....	189	-	232	-	234	-	234	-
Department of Health and Human Services.....	96	-	260	-	262	-	262	-
DHS: for AQI and other services and support.....	1,890	-	1,167	-	1,173	-	1,175	-
Federal Emergency Management Agency.....	-	-	77	-	77	-	78	-
NASA, National Aeronautics and Space Administration..	405	-	396	-	398	-	399	-
USDOJ, Geological Survey, National Park Service, Office of Insular Affairs.....	1,851	-	1,108	-	1,114	-	1,115	-
USDOJ, Bureau of Land Management & Reclamation: for administrative and technical support.....	478	-	412	-	414	-	415	-
USDOJ, Fish and Wildlife Services: for natural resources and endangered species.....	2,238	-	2,006	-	2,017	-	2,019	-
USDOT, Federal Aviation Administration	270	-	1,140	-	1,146	-	1,148	-
Department of State: for miscellaneous services	-	-	298	-	300	-	300	-
EPA, IACB: for miscellaneous services.....	701	-	855	-	860	-	861	-
GSA: for miscellaneous services.....	6	-	55	-	55	-	55	-
Other Federal Funds.....	1,054	190	229	359	230	375	231	375
Total, Other Federal Funds.....	22,686	190	23,574	359	23,700	375	23,730	375
<u>Non-Federal Funds:</u>								
Funds from States and local entities for								
wildlife services support.....	47,356	545	46,807	575	47,057	589	47,118	589
Import-Export User Fees.....	42,801	325	39,876	326	40,089	340	40,141	340
Phytosanitary Certificate User Fees.....	14,762	106	16,158	86	16,244	95	16,265	95
Reimbursable Overtime.....	7,900	85	8,569	74	8,615	80	8,626	80
Product Certificates.....	-	-	-	-	-	-	-	-
Veterinary Diagnostics User Fees.....	4,250	29	5,586	29	5,616	30	5,624	30
Other User Fees.....	27	-	1	-	1	-	1	-
Non-Federal.....	524	-	201	-	203	-	203	-
Subtotal, Reimbursable Salaries and Expenses.....	157,285	1,280	162,360	1,449	163,228	1,509	163,440	1,509
Total Obligations,								
Animal and Plant Health Inspection Service.....	\$1,291,846	7,453	\$1,185,362	7,171	\$1,276,108	7,541	\$1,310,565	7,508

a/ The Consolidated Appropriations Act 2014, included \$20M in one-time funding via a General Provision for control, management and associated activities directly related to a multiple-agency response to citrus greening.

ANIMAL AND PLANT HEALTH INSPECTION SERVICE

Permanent Positions by Grade and Staff Year Summary

Item	2012 Actual			2013 Actual			2014 Estimate			2015 Estimate		
	Hdqts	Field	Total	Hdqts	Field	Total	Hdqts	Field	Total	Hdqts	Field	Total
Senior Executive Service.....	25	11	36	27	11	38	27	11	38	27	11	38
GS-15.....	63	55	118	60	57	117	60	57	117	60	57	117
GS-14.....	309	266	575	289	250	539	289	250	539	289	250	539
GS-13.....	263	481	744	258	449	707	259	451	710	259	451	710
GS-12.....	212	911	1,123	188	886	1,074	190	886	1,076	190	886	1,076
GS-11.....	89	845	934	84	818	902	84	818	902	84	818	902
GS-10.....	2	7	9	2	7	9	2	7	9	2	7	9
GS-09.....	88	431	519	86	395	481	86	395	481	86	395	481
GS-08.....	7	270	277	6	255	261	6	255	261	6	255	261
GS-07.....	90	484	574	81	472	553	81	472	553	81	472	553
GS-06.....	14	243	257	12	234	246	12	234	246	12	234	246
GS-05.....	6	183	189	5	169	174	5	169	174	5	169	174
GS-04.....	5	34	39	6	30	36	6	30	36	6	30	36
GS-03.....	2	6	8	0	4	4	0	4	4	0	4	4
GS-02.....	3	4	7	1	4	5	1	4	5	1	4	5
Other Graded Positions.....	26	137	163	23	130	153	23	130	153	23	130	153
Total Perm. Employment EOY.....	1,204	4,368	5,572	1,128	4,171	5,299	1,131	4,173	5,304	1,131	4,173	5,304
Unfilled Positions EOY.....	13	49	62	29	106	135	29	106	135	29	106	135
Total Permanent Positions.....	<u>1,217</u>	<u>4,417</u>	<u>5,634</u>	<u>1,157</u>	<u>4,277</u>	<u>5,434</u>	<u>1,160</u>	<u>4,279</u>	<u>5,439</u>	<u>1,160</u>	<u>4,279</u>	<u>5,439</u>
Staff Year Estimate.....	1,450	6,003	7,453	1,395	5,776	7,171	1,467	6,074	7,541	1,461	6,047	7,508

ANIMAL AND PLANT HEALTH INSPECTION SERVICE

Size and Composition of Agency Motor Vehicle and Aircraft Fleet

1. Size, Composition, and Cost of Motor Vehicle Fleet

APHIS uses vehicles to deliver mission critical services. The Agency's veterinarians, animal health technicians, inspectors, plant protection and quarantine officers, wildlife biologists, and other technical personnel use motor vehicles in their daily responsibilities, which entail travel between inspection sites, farms, ranches, ports, nurseries, and other commercial firms. In some cases, APHIS' cooperators use Agency vehicles as authorized in program cooperative agreements.

In most instances, using Government-Owned Vehicles is more cost effective than either leasing or using privately-owned vehicles. To maintain the life span of the vehicles, operators are required to keep historical maintenance records and submit the vehicles' operational and cost data for review and reporting at least once a year. These periodic maintenance surveys and review of the consolidated vehicle fleet data ensure optimal use of each vehicle in the fleet.

Replacement criteria: APHIS replaces vehicles in accordance with Title 41, CFR, § 102-34.280. Agency programs replace and retire vehicles using data on utilization, age, condition, and funding availability. As a result of a reduced budget in recent years, programs have extended their normal replacement cycle. APHIS has implemented efforts to both increase the number of alternative fuel vehicles and extend the life cycle of each vehicle.

Reductions to the motor vehicle fleet. During FYs 2012-2013, two of APHIS's largest program units underwent reorganizations that resulted in combined offices and assets, reduced staff, and more shared vehicles. Additionally, during FY 2013, APHIS began implementation of a Vehicle Allocation Methodology (VAM) that allowed further reductions to the fleet. The VAM allows closer management of the fleet, including the identification of under-utilized vehicles. These two changes allowed APHIS to reduce the size and cost of its fleet, while still meeting the needs of its programs and allowing it to serve the taxpayers in the most effective way possible. APHIS expects that additional VAM-related reductions will occur in FY 2014, although they will not be as significant as those that occurred in FY 2013.

Planned changes to the motor vehicle fleet. For FY 2015, APHIS will continue to show a reduction in the size of its motor vehicle fleet. In particular, we expect to reduce the number of: sedans/station wagons by 5; light duty trucks by 11; and vans by 5, while increasing the number of medium duty trucks by 1. There is no planned change in the number of sport utility vehicles, buses, or heavy duty trucks.

Replacement of passenger motor vehicles. For FY 2015, the Agency proposes replacing 21 of the 305 vehicles currently in the Agency fleet that are used by APHIS' technical personnel in the field. Vehicles designated for disposal meet the General Service Administration's (GSA's) standards for replacement by having mileage of 60,000 or more, or by being three years of age or older.

Impediments to managing the motor vehicle fleet.

- 1) Currently, APHIS manages its fleet with Agency spreadsheets, fleet card data, and GSA data bases. USDA is in the process of implementing fleet management software system to facilitate improved Department-wide accountability.
- 2) The current fleet card system provides accurate purchase information only about 80 percent of the time. APHIS welcomes the implementation of a new USDA fleet management software system and fleet card system in FY 2014, which will provide complete and accurate vehicle cost and mileage data for use starting in FY 2015.

Size, Composition, and Annual Operating Costs of Vehicle Fleet

Fiscal Year	Number of Vehicles by Type*									Annual Operating Costs (\$ in 000)
	Passenger Motor Vehicles (e.g. Sedans & Station Wagons)	Light Duty Vehicles				Medium Duty Vehicles		Heavy Duty Vehicles	Total Number of Vehicles	
		Vans	SUVs	Trucks		Buses	Trucks, Vans and SUVs			
				4x2	4x4					
2012	381	250	1,087	465	2,458	-	437	15	5,093	16,344
Change	-74	-43	-58	-71	-143	-	-35	-1	-425	+348
2013	307	207	1,029	394	2,315	-	402	14	4,668	16,692
Change	-2	-5	-6	-10	-22	-	-1	-	-46	+485
2014	305	202	1,023	384	2,293	-	401	14	4,622	17,177
Change	-5	-5	-	-5	-6	-	+1	-	-20	+499
2015	300	197	1,023	379	2,287	-	402	14	4,602	17,676

* Numbers include vehicles owned by the Agency, and leased from commercial sources or GSA.

2. Size and Composition of Aircraft Fleet

APHIS aircraft are used to conduct aerial resource and surveillance surveys, aerial application tests, methods development and testing, and equipment demonstration and testing; control and/or eradicate destructive plant pests from attacking agricultural crops; and alleviate or control wildlife damage to agricultural products. Some are also used to monitor contract aircraft.

The Appropriations Act provides APHIS with authority to replace aircraft; however, the Agency only replaces aircraft when necessary to maintain fleet safety and efficient operating conditions.

The APHIS aircraft fleet consists of 7 operable aircraft for domestic plant pest and disease management programs, and 71 aircraft used for the wildlife damage management programs. Of the 71 aircraft used for the wildlife damage management programs: 62 are owned, 22 of which are non-operational; 5 are borrowed from state cooperators; and 4 are rented. APHIS plans to dispose of at least 10 of the non-operational planes in FY 2014.

ANIMAL AND PLANT HEALTH INSPECTION SERVICE

The estimates include proposed changes in the language of this item as follows: (new language is underscored; deleted matter is enclosed in brackets):

Salaries and Expenses:

For necessary expenses of the Animal and Plant Health Inspection Service, including up to \$30,000 for representation allowances and for expenses pursuant to the Foreign Service Act of 1980 (22 U.S.C. 4085), [~~\$821,721,000~~]\$834,341,000, of which \$470,000, to remain available until expended, shall be available for the control of outbreaks of insects, plant diseases, animal diseases and for control of pest animals and birds ("contingency fund") to the extent necessary to meet emergency conditions; of which [~~\$12,720,000~~] \$9,055,000 to remain available until expended, shall be used for the cotton pests program for cost share purposes or for debt retirement for active eradication zones; of which [~~\$35,339,000~~]\$37,889,000, to remain available until expended, shall be for Animal Health Technical Services; of which \$697,000 shall be for activities under the authority of the Horse Protection Act of 1970, as amended (15 U.S.C. 1831); of which [~~\$52,340,000~~]\$50,223,000, to remain available until expended, shall be used to support avian health; of which \$4,251,000, to remain available until expended, shall be for information technology infrastructure; of which [~~\$151,500,000~~]\$137,393,000, to remain available until expended, shall be for specialty crop pests; of which, \$8,826,000, to remain available until expended, shall be for field crop and rangeland ecosystem pests; of which [~~\$54,000,000~~]\$45,392,000, to remain available until expended, shall be for tree and wood pests; of which \$3,722,000, to remain available until expended, shall be for the National Veterinary Stockpile; of which up to \$1,500,000, to remain available until expended, shall be for the scrapie program for indemnities; of which \$1,500,000, to remain available until expended, shall be for the wildlife damage management program for aviation safety: *Provided*, That, of amounts available under this heading for wildlife services methods development, \$1,000,000 shall remain available until expended: *Provided further*, That of amounts available under this heading for the screwworm program, [~~\$4,990,000~~]\$4,929,000 shall remain available until expended: *Provided further*, That no funds shall be used to formulate or administer a brucellosis eradication program for the current fiscal year that does not require minimum matching by the States of at least 40 percent: *Provided further*, That this appropriation shall be available for the operation and maintenance of aircraft and the purchase of not to exceed four, of which two shall be for replacement only: *Provided further*, That, in addition, in emergencies which threaten any segment of the agricultural production industry of this country, the Secretary may transfer from other appropriations or funds available to the agencies or corporations of the Department such sums as may be deemed necessary, to be available only in such emergencies for the arrest and eradication of contagious or infectious disease or pests of animals, poultry, or plants, and for expenses in accordance with sections 10411 and 10417 of the Animal Health Protection Act (7 U.S.C. 8310 and 8316) and sections 431 and 442 of the Plant Protection Act (7 U.S.C. 7751 and 7772), and any unexpended balances of funds transferred for such emergency purposes in the preceding fiscal year shall be merged with such transferred amounts: *Provided further*, That appropriations hereunder shall be available pursuant to law (7 U.S.C. 2250) for the repair and alteration of leased buildings and improvements, but unless otherwise provided the cost of altering any one building during the fiscal year shall not exceed 10 percent of the current replacement value of the building.

In fiscal year [~~2014~~]2015, the agency is authorized to collect fees to cover the total costs of providing technical assistance, goods, or services requested by States, other political subdivisions, domestic and international organizations, foreign governments, or individuals, provided that such fees are structured such that any entity's liability for such fees is reasonably based on the technical assistance, goods, or services provided to the entity by the agency, and such fees shall be reimbursed to this account, to remain available until expended, without further appropriation, for providing such assistance, goods, or services.

ANIMAL AND PLANT HEALTH INSPECTION SERVICE

Salaries and Expenses

Lead-off Tabular Statement

Budget Estimate, 2015.....	\$834,341,000
2014 Enacted.....	821,721,000
Change in Appropriation.....	<u>+12,620,000</u>
Adjustments in 2014:	
2014 Enacted.....	821,721,000
General Provision 748 ^{a/}	<u>20,000,000</u>
Adjusted Base for 2014.....	841,721,000
Budget Estimate, 2015.....	834,341,000
Decrease over adjusted 2014.....	<u>-7,380,000</u>

Summary Of Increases and Decreases - Current Law (Dollars in thousands)

	<u>2012</u> <u>Actual</u>	2013 <u>Change</u>	2014 <u>Change</u>	2015 <u>Change</u>		2015 <u>Estimate</u>
Discretionary Appropriations:						
<u>Safeguarding and Emergency Preparedness/Response</u>						
Animal Health Technical Services.....	\$32,500	+\$1,518	+\$1,321	+\$2,550	1a	\$37,889
Aquatic Animal Health.....	2,261	-174	+166	-	1b	2,253
Avian Health.....	52,000	-4,007	+4,347	-2,117	1c	50,223
Cattle Health.....	99,000	-8,659	+2,159	-	1d	92,500
Equine,Cervid, & Small Ruminant Health.....	22,000	-4,308	+1,808	-	1e	19,500
National Veterinary Stockpile.....	2,750	-212	+1,184	-	1f	3,722
Swine Health.....	23,000	-1,772	+1,022	-	1g	22,250
Veterinary Biologics.....	16,457	-1,268	+1,228	-	1h	16,417
Veterinary Diagnostics.....	31,611	-2,436	+2,365	-	1i	31,540
Zoonotic Disease Management.....	9,000	+575	-52	-	1j	9,523
Subtotal, Animal Health.....	<u>290,579</u>	<u>-20,745</u>	<u>+15,550</u>	<u>+433</u>		<u>285,817</u>
Agricultural Quarantine Inspection (Appropriated).....	27,500	-1,196	+596	-	1k	26,900
Cotton Pests.....	17,848	-3,109	-2,019	-3,665	1l	9,055
Field Crop & Rangeland Ecosystems Pests.....	9,068	-699	+457	-	1m	8,826
Pest Detection.....	27,500	-2,119	+2,065	-	1n	27,446
Plant Protection Methods Development.....	20,600	-665	+4,614	-4,000	1o	20,549
Specialty Crop Pests.....	153,950	-11,863	+9,413	-14,107	1p	137,393
Tree & Wood Pests.....	55,638	-3,365	+1,727	-8,608	1q	45,392
Subtotal, Plant Health.....	<u>312,104</u>	<u>-23,015</u>	<u>+16,852</u>	<u>-30,380</u>		<u>275,561</u>
Wildlife Damage Management.....	72,500	-4,664	+19,592	-	1r	87,428
Wildlife Services Methods Development.....	18,000	-464	+1,320	-	1s	18,856
Subtotal, Wildlife Services.....	<u>90,500</u>	<u>-5,128</u>	<u>+20,912</u>	<u>-</u>		<u>106,284</u>
Animal & Plant Health Regulatory Enforcement.....	16,275	-1,254	+1,203	-	1t	16,224
Biotechnology Regulatory Services.....	18,135	-1,397	+1,397	-	1u	18,135
Subtotal, Regulatory Services.....	<u>34,410</u>	<u>-2,652</u>	<u>+2,601</u>	<u>-</u>		<u>34,359</u>
Contingency Fund.....	1,000	+384	-914	-	1v	470
Emergency Preparedness & Response.....	17,000	-1,310	1,276	-	1w	16,966
Subtotal, Emergency Management.....	<u>18,000</u>	<u>-926</u>	<u>362</u>	<u>-</u>		<u>17,436</u>

	<u>2012</u> <u>Actual</u>	2013 <u>Change</u>	2014 <u>Change</u>	2015 <u>Change</u>	2015 <u>Estimate</u>
Subtotal Safeguarding and Emergency Preparedness/Response.....	745,593	-52,465	+56,276	-29,947	719,457
<u>Safe Trade and International Technical Assistance</u>					
Agriculture Import/Export.....	13,354	-1,029	+1,774	- 2a	14,099
Overseas Technical & Trade Operations.....	20,104	-1,632	+1,642	- 2b	20,114
Subtotal Safe Trade and International Technical Assistance.....	33,458	-2,661	+3,416	-	34,213
<u>Animal Welfare</u>					
Animal Welfare.....	27,087	-2087	+3,010	- 3a	28,010
Horse Protection.....	696	-54	+55	- 3b	697
Subtotal, Animal Welfare.....	27,783	-2,141	+3,065	-	28,707
<u>Agency-Wide Programs</u>					
APHIS Information Technology Infrastructure.....	4,335	-334	+250	- 4a	4,251
Physical/Operational Security.....	5,365	-413	+194	- 4b	5,146
Decentralized GSA Rental and DHS Security Payments.	-	-	-	+42,567 4c	42,567
Subtotal, Agency Management.....	9,700	-747	+444	+42,567	51,964
General Provision 748 ^{a/}	-	-	+20,000	-20,000	-
Total, Appropriation or Change	\$816,534	-\$58,015	+\$83,202	-\$7,380	\$834,341

a/ The FY 2014 General Provision 748 provides \$20 million in one-time funding for control, management and associated activities directly related to the multiple-agency response to citrus greening. Funds will be available until September 30, 2015.

ANIMAL AND PLANT HEALTH INSPECTION SERVICE

Salaries and Expenses

Project Statement

Appropriations Detail and Staff Years (SYs)
(Dollars in thousands)

Program	2012 Actual		2013 Actual		2014 Estimate		Inc. or Dec.		2015 Estimate	
	Amount	SYs	Amount	SYs	Amount	SYs	Amount	SYs	Amount	SYs
<u>Discretionary Appropriations:</u>										
<u>Safeguarding and Emergency Preparedness/Response</u>										
Animal Health Technical Services.....	\$32,500	64	\$34,018	64	\$35,339	64	+\$2,550	-	\$37,889	64
Aquatic Animal Health.....	2,261	22	2,087	22	2,253	22	-	-	2,253	22
Avian Health.....	52,000	196	47,993	196	52,340	196	-2,117	-2	50,223	194
Cattle Health.....	99,000	570	90,341	560	92,500	555	-	-	92,500	555
Equine, Cervid & Small Ruminant Health.....	22,000	133	17,692	129	19,500	120	-	-	19,500	120
National Veterinary Stockpile.....	2,750	1	2,538	1	3,722	1	-	-	3,722	1
Swine Health.....	23,000	127	21,228	122	22,250	120	-	-	22,250	120
Veterinary Biologics.....	16,457	108	15,189	108	16,417	109	-	-	16,417	109
Veterinary Diagnostics.....	31,611	190	29,175	190	31,540	190	-	-	31,540	190
Zoonotic Disease Management.....	9,000	45	9,575	45	9,523	45	-	-	9,523	45
Subtotal, Animal Health.....	290,579	1,456	269,834	1,437	285,384	1,422	+433	-2	285,817	1,420
<u>Agricultural Quarantine Inspection</u>										
(Appropriated)	27,500	364	26,304	360	26,900	360	-	-	26,900	360
Cotton Pests.....	17,848	61	14,739	61	12,720	58	-3,665	-	9,055	58
Field Crop & Rangeland Ecosystems Pests.....	9,068	60	8,369	58	8,826	58	-	-	8,826	58
Pest Detection.....	27,500	145	25,381	145	27,446	145	-	-	27,446	145
Plant Protection Methods Development.....	20,600	140	19,935	139	24,549	141	-4,000	-	20,549	141
Specialty Crop Pests.....	153,950	700	142,087	694	151,500	688	-14,107	-7	137,393	681
Tree & Wood Pests.....	55,638	321	52,273	319	54,000	319	-8,608	-4	45,392	315
Subtotal, Plant Health	312,104	1,791	289,089	1,776	305,941	1,769	-30,380	-11	275,561	1,758
Wildlife Damage Management.....	72,500	534	67,836	526	87,428	620	-	-	87,428	620
Wildlife Services Methods Development.....	18,000	164	17,536	163	18,856	163	-	-	18,856	163
Subtotal, Wildlife Services	90,500	698	85,372	689	106,284	783	-	-	106,284	783
Animal & Plant Health Regulatory Enforcement...	16,275	142	15,021	138	16,224	142	-	-	16,224	142
Biotechnology Regulatory Services.....	18,135	92	16,738	90	18,135	92	-	-	18,135	92
Subtotal, Regulatory Services	34,410	234	31,758	228	34,359	234	-	-	34,359	234
Contingency Fund.....	1,000	15	1,384	15	470	5	-	-	470	5
Emergency Preparedness & Response.....	17,000	91	15,690	89	16,966	90	-	-	16,966	90
Subtotal, Emergency Management	18,000	106	17,074	104	17,436	95	-	-	17,436	95
Emergency Preparedness/Response.....	745,593	4,285	693,128	4,234	749,404	4,303	-29,947	-13	719,457	4,290
<u>Safe Trade and International Technical Assistance</u>										
Agriculture Import/Export.....	13,354	92	12,325	92	14,099	92	-	-	14,099	92
Overseas Technical & Trade Operations.....	20,104	73	18,472	73	20,114	76	-	-	20,114	76
International Technical Assistance.....	33,458	165	30,797	165	34,213	168	-	-	34,213	168
<u>Animal Welfare</u>										
Animal Welfare.....	27,087	224	25,000	213	28,010	218	-	-	28,010	218
Horse Protection.....	696	5	642	5	697	6	-	-	697	6
Subtotal, Animal Welfare.....	27,783	229	25,642	218	28,707	224	-	-	28,707	224
<u>Agency-Wide Programs</u>										
APHIS Information Technology Infrastructure.....	4,335	-	4,001	-	4,251	-	-	-	4,251	-
Physical/Operational Security.....	5,365	-	4,952	-	5,146	-	-	-	5,146	-
Decentralized GSA Rental and DHS Security Payments.....	-	-	-	-	-	-	+42,567	-	42,567	-
Subtotal, Agency Management.....	9,700	-	8,953	-	9,397	-	+42,567	-	51,964	-
Subtotal, Appropriated	816,534	4,679	758,519	4,617	821,721	4,695	+12,620	-13	834,341	4,682

Program	2012 Actual		2013 Actual		2014 Estimate		Inc. or Dec.		2015 Estimate	
	Amount	SYs	Amount	SYs	Amount	SYs	Amount	SYs	Amount	SYs
General Provision 748.....	-	-	-	-	20,000	-	-20,000	-	-	-
Rescission P.L. 113-6.....	-	-	22,256	-	-	-	-	-	-	-
Sequester P.L. 113-6.....	-	-	41,077	-	-	-	-	-	-	-
Subtotal, Discretionary Appropriated	816,534	4,679	821,851	4,617	841,721	4,695	-7,380	-13	834,341	4,682
Authority from Offsetting collections.....	205,042	1,627	234,983	1,500	154,450	1,500	+3,089	9	157,539	1,509
Sequester P.L. 113-6...Offsetting Collections.....	-	-	-900	-	-	-	-	-	-	-
Subtotal, Offsetting Collections.....	205,042	1,627	234,083	1,500	154,450	1,500	+3,089	9	157,539	1,509
Mandatory Funding:										
Farm Bill, Section 10007	-	-	-	-	62,500	15	-	-	62,500	15
Farm Bill, Section 10201	50,000	15	50,000	15	-	-	-	-	-	-
Farm Bill, Section 10202	5,000	-	-	-	-	-	-	-	-	-
Sequester P.L. 113-6...Farm Bill.....	-	-	-2,550	-	-4,140	-	+4,140	-	-	-
Subtotal, Farm Bill.....	55,000	15	47,450	15	58,360	15	+4,140	-	62,500	15
Trust Funds.....	10,186	150	13,071	50	9,000	50	-	-	9,000	50
Agricultural Quarantine Inspection User Fees:										
Total Collections.....	548,329	1,350	576,786	1,250	594,529	1,250	+101,889	-	696,418	1,250
Less: Transfer to DHS	-348,805	-	-366,370	-	-362,526	-	-101,988	-	-464,514	-
Sequester P.L. 113-6 ...AQI.....	-	-	-10,731	-	-16,704	-	+16,704	-	-	-
AQI User Fees (APHIS).....	199,523	1,350	199,685	1,250	215,299	1,250	-100	-	231,904	1,250
Subtotal, Mandatory Funding.....	264,710	1,515	260,206	1,315	282,659	1,315	+20,745	-	303,404	1,315
Total Appropriations	1,286,286	7,821	1,252,808	7,432	1,278,830	7,510	+16,454	-4	1,295,284	7,506
Transfers In:										
CCC.....	21,294	2	-	-	-	-	-	-	-	-
Departmental	111	-	102	-	-	-	-	-	-	-
Transfers Out:										
Working Capital Fund.....	-2,500	-	-250	-	-	-	-	-	-	-
Subtotal, Transfers.....	18,905	2	-148	-	-	-	-	-	-	-
Balance Available, SOY.....	293,480	15	322,698	170	406,476	211	+5,377	-31	411,853	180
Sequester P.L. 113-6 ...Trust Funds.....	-	-	-67	-	-95	-	+95	-	-	-
Recoveries Trust Funds.....	321	-	436	-	-	-	-	-	-	-
Recoveries.....	22,491	-	25,811	-	-	-	-	-	-	-
Total Available	1,621,482	7,838	1,601,538	7,602	1,685,211	7,721	+21,925	-35	1,707,136	7,686
Lapsing Balances.....	-10,572	-215	-10,834	-220	-	-	-	-	-	-
Balance Available, EOY.....	-322,698	-170	-406,476	-211	-411,853	-180	+12,533	+2	-399,321	-178
Total Obligations	1,288,212	7,453	1,184,228	7,171	1,273,358	7,541	+34,457	-33	1,307,815	7,508

ANIMAL AND PLANT HEALTH INSPECTION SERVICE

Salaries and Expenses

Project Statement
Obligations Detail and Staff Years (SYs)
(Dollars in thousands)

Program	2012 Actual		2013 Actual		2014 Estimate		Inc. or Dec.		2015 Estimate	
	Amount	SYs	Amount	SYs	Amount	SYs	Amount	SYs	Amount	SYs
<u>Discretionary Obligations:</u>										
<u>Safeguarding and Emergency</u>										
<u>Preparedness/Response</u>										
Animal Health Technical Services.....	\$30,349	64	\$33,484	64	\$38,151	64	-\$976	-	\$37,175	64
Aquatic Animal Health.....	2,261	22	1,988	20	2,253	22	-	-	2,253	22
Avian Health.....	53,206	194	50,207	187	50,705	196	+948	-2	51,653	194
Cattle Health.....	97,722	570	89,331	544	92,500	557	-21	-	92,479	557
Equine, Cervid & Small Ruminant Health.....	23,552	133	18,715	127	20,000	120	-1,000	-	19,000	120
National Veterinary Stockpile.....	3,026	1	2,596	1	4,238	2	-738	-1	3,500	1
Swine Health.....	22,897	127	20,318	122	22,250	120	-	-	22,250	120
Veterinary Biologics.....	16,445	108	15,179	107	16,417	109	-	-	16,417	109
Veterinary Diagnostics.....	31,582	190	29,153	190	31,540	190	-	-	31,540	190
Zoonotic Disease Management.....	8,956	45	9,414	41	9,523	45	-	-	9,523	45
Subtotal, Animal Health.....	289,996	1,454	270,385	1,403	287,577	1,425	-1,787	-3	285,790	1,422
<u>Agricultural Quarantine Inspection</u>										
(Appropriated).....	27,211	362	26,274	360	26,900	360	-	-	26,900	360
Cotton Pests.....	19,860	63	13,962	60	9,004	60	+3,746	-2	12,750	58
Field Crop & Rangeland Ecosystems Pests.....	8,896	60	8,385	57	8,777	60	+423	-2	9,200	58
Pest Detection.....	27,358	145	25,155	145	27,446	145	-	-	27,446	145
Plant Protection Methods Development.....	20,081	140	19,138	139	24,549	141	-4,000	-	20,549	141
Specialty Crop Pests.....	166,886	704	143,809	687	151,267	693	-6,134	-12	145,133	681
Tree & Wood Pests.....	78,300	324	51,622	303	50,790	324	+980	-9	51,770	315
Subtotal, Plant Health	348,592	1,798	288,346	1,751	298,733	1,783	-4,985	-25	293,748	1,758
Wildlife Damage Management.....	70,480	531	68,027	526	87,528	620	-160	-	87,368	620
Wildlife Services Methods Development.....	16,924	163	17,297	163	18,856	163	+14	-	18,870	163
Subtotal, Wildlife Services	87,404	694	85,324	689	106,384	783	-146	-	106,238	783
Animal & Plant Health Regulatory Enforcement....	16,189	142	14,728	138	16,224	142	-	-	16,224	142
Biotechnology Regulatory Services.....	18,134	90	15,792	90	18,135	92	-	-	18,135	92
Subtotal, Regulatory Services	34,323	232	30,520	228	34,359	234	-	-	34,359	234
Contingency Fund.....	1,500	-	1,644	5	2,000	10	+400	-5	2,400	5
Emergency Preparedness & Response.....	16,753	89	15,637	83	16,966	90	-	-	16,966	90
Subtotal, Emergency Management	18,253	89	17,281	88	18,966	100	+400	-5	19,366	95
Subtotal Safeguarding and Emergency Preparedness/Response.....	778,568	4,267	691,856	4,159	746,019	4,325	-6,518	-33	739,501	4,292
<u>Safe Trade and International Technical Assistance</u>										
Agriculture Import/Export.....	13,310	92	12,021	92	14,099	92	-	-	14,099	92
Overseas Technical & Trade Operations.....	20,104	73	18,442	70	20,114	76	-	-	20,114	76
Subtotal Safe Trade and International Technical Assistance.....	33,414	165	30,463	162	34,213	168	-	-	34,213	168
<u>Animal Welfare</u>										
Animal Welfare.....	27,016	218	24,585	210	28,010	218	-	-	28,010	218
Horse Protection.....	696	5	640	5	697	6	-	-	697	6
Subtotal, Animal Welfare.....	27,712	223	25,226	215	28,707	224	-	-	28,707	224
<u>Agency-Wide Programs</u>										
APHIS Information Technology Infrastructure.....	4,494	-	3,921	-	4,360	-	-106	-	4,254	-
Physical/Operational Security.....	5,224	-	4,947	-	5,146	-	-	-	5,146	-
Decentralized GSA Rental and DHS Security Payments.....	-	-	-	-	-	-	+42,567	-	42,567	-
Subtotal, Agency Management.....	9,717	-	8,869	-	9,506	-	+42,461	-	51,967	-
General Provision 748.....	-	-	-	-	12,000	-	-4,000	-	8,000	-
Subtotal, Discretionary	849,412	4,655	756,414	4,536	830,445	4,717	+31,942	-33	862,387	4,684
<u>Mandatory Obligations:</u>										
Agricultural Quarantine Inspection User Fees.....	188,234	1,350	194,095	1,121	204,095	1,250	+2,041	-	206,136	1,250
Farm Bill.....	52,115	15	47,008	15	58,360	15	+4,492	-	62,852	15
Trust Funds.....	11,702	150	14,919	50	9,000	50	-	-	9,000	50
Subtotal, Mandatory	252,051	1,515	256,021	1,186	271,455	1,315	+6,533	-	277,988	1,315

Program	2012 Actual		2013 Actual		2014 Estimate		Inc. or Dec.		2015 Estimate	
	Amount	SYs	Amount	SYs	Amount	SYs	Amount	SYs	Amount	SYs
Other Obligations:										
CCC.....	24,561	3	5,213	0	4,200	-	-4,200	-	-	-
Obligations from Offsetting collections.....	157,285	1,280	162,360	1,449	163,228	1,509	+212	-	163,440	1,509
Homeland Security, HUB Relo, & Department.....	111	-	106	-	30	-	-30	-	-	-
H1N1.....	4,793	-	4,113	-	4,000	-	-	-	4,000	-
Subtotal, Other	186,750	1,283	171,793	1,449	171,459	1,509	-4,019	-	167,440	1,509
Total, Obligations	1,288,212	7,453	1,184,228	7,171	1,273,358	7,541	+34,457	-33	1,307,815	7,508
Lapsing Balances.....	10,572	215	10,834	220	-	-	-	-	-	-
Balance Available, EOY.....	322,698	170	406,476	211	411,853	180	-12,532	-2	399,321	178
Total, Available	1,621,482	7,838	1,601,538	7,602	1,685,211	7,721	+21,925	-35	1,707,136	7,686
Transfers In:										
CCC	-21,294	-2	-	-	-	-	-	-	-	-
Departmental.....	-111	-	-102	-	-	-	-	-	-	-
Transfers Out:										
Working Capital Fund.....	2,500	-	250	-	-	-	-	-	-	-
Sequester P.L. 113-6.....	-	-	67	-	95	-	-95	-	-	-
Balance Available, SOY.....	-293,480	-15	-322,698	-170	-406,476	-211	-5,376	+31	-411,853	-180
Recoveries: Other (Net).....	-22,812	-	-26,248	-	-	-	-	-	-	-
Total, Appropriation	1,286,286	7,821	1,252,808	7,432	1,278,830	7,510	+16,454	-4	1,295,284	7,506

ANIMAL AND PLANT HEALTH INSPECTION SERVICE

Justification of Increases and Decreases Salaries and Expenses

Citrus Greening (\$20,000,000 available in 2014)

APHIS' budget request reflects the removal of a General Provision (Sec. 748) in the FY 2014 Consolidated Appropriations Act that provided \$20 million in one-time funding for a special effort to combat citrus greening. Congress authorized the funding for use in FYs 2014 and 2015. A USDA Multi-Agency Coordination (MAC) Group, working with citrus stakeholders, will use it to further safeguard domestic and international citrus exports by addressing this growing threat.

An increase of \$4,526,000 to fund increased pay costs which includes \$1,116,000 for annualization of the fiscal year 2014 pay raise and \$3,410,000 for the anticipated fiscal year 2015 pay raise.

A large portion of APHIS' budget is in support of personnel compensation. Having to absorb the \$4.526 million in increased pay costs will result in a reduction of direct program dollars available for hands-on operations.

- (1) A net decrease of \$29,947,000 and a decrease of 13 staff years for Safeguarding and Emergency Preparedness/Response:

A net increase of \$433,000 and a decrease of 2 staff years for Safeguarding and Emergency Preparedness/Response - Animal Health.

- (a) An increase of \$2,550,000 for the Animal Health Technical Services program (\$35,339,000 and 64 staff years available in 2014).

APHIS' Animal Health Technical Services program enhances the tools available for acquiring and managing information vital for maintaining and improving global market access. Incorporating national surveillance data standards into data management applications enables animal health information entered by Federal, State, Tribal and private individuals in multiple systems to be compiled nationally, thus leveraging the work of animal health professionals across the country to meet local, State and national veterinary health objectives. Private veterinarians trained and accredited by APHIS assist producers in meeting both export requirements and disease program standards, allowing U.S. animals and animal products to compete in the global economy. Disease transmission and spread models developed and shared by the Agency allow improved planning and management of animal health incidents.

Technical applications and systems made available by APHIS are vital for national animal health surveillance and response activities. The Agency is assisting interested States in installing and using the Agency's current product for managing animal disease surveillance data. Additionally, the program increased the use of validated and verified animal disease spread models, linked to economic impact models, to develop and test disease response strategies. APHIS leads the implementation of the joint USDA/Department of Homeland Security foreign animal disease modeling analysis center, and contributes funding to additional modeling efforts through cooperative agreements.

The activities conducted to safeguard American agriculture are too expansive to be overseen only by Federally-employed veterinarians. The voluntary National Veterinary Accreditation Program (NVAP) authorizes 64,000 private veterinary practitioners to work with Federal veterinarians and State animal health officials on cooperative animal health related programs. Through the NVAP, APHIS leverages the medical expertise and community relationships of private veterinarians to deliver critical, Federally-regulated animal health services to safeguard animal and public health. In addition, USDA-accredited veterinarians certify exports to facilitate international market access for a rapidly growing number of U.S. producers. APHIS has integrated formal NVAP training into the curriculum of all 28 U.S. veterinary schools, building knowledge among new veterinary professionals. Failure to adhere to the Federal

standards that APHIS oversees can result in license suspension or revocation of a participating accredited veterinarian. On average, less than ten veterinarians have their accreditation suspended or revoked each year.

Because animal traceability is a vital issue with U.S. trading partners, APHIS has been developing the new animal disease traceability (ADT) framework. This framework brings together Federal, State, Tribal, and private animal health professionals to identify diseased animals in a timely manner, quickly trace their movements, and control disease spread. These activities are crucial to protecting the U.S. livestock industry, whose production value was approximately \$70 billion in 2012. Knowing where diseased and at-risk animals are located helps preserve animal health, reduce animal deaths if outbreaks occur, and limit economic losses to owners and communities. This approach addresses many producer concerns about previous efforts to implement a national animal identification system by directing more responsibility to the State and Tribal level. Additionally, it offers basic, low-cost animal identification options that are well supported by most industry sectors as a starting point to increase the number of animals officially identified, particularly for cattle. While other species are included, current practices for many of those species result in adequate traceability and are being maintained.

The new ADT approach also addresses many concerns that Congress identified with the previous approach, including the need to establish performance standards to measure the system's value and that are linked to cooperator funding, developing a mandatory system, and a reliable system with reasonable operational costs. The improved framework will focus on where the impact of disease spread is the greatest—animals moving interstate. Rulemaking that requires official identification of livestock as well as certificates that document the health of the animals (unless otherwise exempt) will assure necessary participation. This rulemaking will enhance the ability of the United States to regionalize and compartmentalize animal health issues more quickly, minimizing losses and enabling the reestablishment of foreign and domestic market access with minimum delay during an animal disease event. This will help the U.S. animal and animal product exports to remain competitive in the global market place as trade requirements increasingly require such a system to allow access to markets. APHIS' objective is to decrease the time needed to trace animals, and the performance-based approach directs these efforts accordingly. The Agency estimates that a disease trace can be conducted twice as quickly when official identification is used. States and Tribes will implement traceability programs that work with their stakeholders and align to national standards. The Agency provides funding to help support the implementation of ADT at the local level. In FY 2014, 80 percent of States and Tribes had an approved ADT strategic plan with APHIS, which include performance measures and implementation plans. The Agency anticipates that all States receiving cooperative agreement funds will have a current strategic plan consistent with the recently implemented final rule for ADT by the end of FY 2015.

APHIS proposes an increase of \$2.550 million for the AHTS program, of which a total of \$14.866 will be allocated to the ADT program. With this increase APHIS will be able to build additional database integration, conduct additional tag retirement feasibility studies, or provide additional cooperative funds to States and tribes. As a result, progress on improving the ability to trace animals quickly and efficiently will be hindered. In FY 2015, the Agency plans to provide \$7 million to States and Tribes through cooperative agreements to support implementation of the revised traceability plan, and will use \$3.8 million to support field personnel, \$3.5 million on program administration, and \$500,000 on information technology activities specific to the ADT program. The requested increase will enable APHIS to maintain the current level of infrastructure, and to continue the progress made in premises registration and data collection and management. The proposed funding level accurately reflects how much the program needs to carry out essential activities and retain the advances made to date, while not compromising other critical animal health data management systems such as laboratory information systems that allow test results to be shared between reporting systems, surveillance data storage and analysis, and emergency management systems that ensure timely response in the event of an animal disease outbreak.

Without funding for this program, the information needed to trace the origin of diseased animals would not be available, resulting in increased disease spread and potential loss of marketability for animals and animal products, both in the United States and through exports. A 2011 study from Kansas State

University points out that export restrictions due to the discovery of a single cow with bovine spongiform encephalopathy in 2004 resulted in losses to the U.S. beef industry ranging from \$3.2 billion to \$4.7 billion. Researchers argue that cattle traceability would limit the amount of time market access is lost following an outbreak of some disease. Further, there would be diminished credibility of animal health information for U.S. animals and animal products in the export market due to the lack of national surveillance information and Federal oversight of accredited veterinarians who perform examinations and testing for animals being exported.

Overall, approximately 50 percent of the program's funding supports salaries and benefits of personnel, 20 percent funds contracts and agreements, 16 percent funds major IT system costs, and the remaining supports normal operating costs such as travel, supplies, rent and utilities.

Pay Increase - redirect (+\$62,000)

An increase of \$62,000 for pay costs which includes \$15,000 for annualization of the FY 2014 pay raise and \$47,000 for the anticipated FY 2015 pay raise.

(b) Aquatic Animal Health program (\$2,253,000 and 22 staff years available in 2014).

APHIS supports efforts to protect the health and thereby improve the quality and productivity of aquatic animal industries. APHIS conducts activities that prevent the introduction or spread of reportable aquatic animal pathogens into farmed populations. The Agency also collaborates with other relevant agencies and stakeholders to prevent the spread of aquatic animal pathogens into wild aquatic animal populations. APHIS maintains regulations and program standards that guide aquatic animal health activities at both the Federal and State/Tribal level.

The Aquatic Animal Health Program contributes to protecting animal health within the aquaculture industry, which was last valued at \$1.4 billion in 2007. APHIS has a role in developing a national aquatic animal health infrastructure to help the domestic aquaculture industry. APHIS' surveillance efforts in aquatic animal species are designed to detect foreign, emerging, and domestic diseases that could have a substantial impact on domestic production and the economy. The Agency collaborates with States, Tribes, Federal agencies, and the industry to establish standards for surveillance and disease control. Establishing and maintaining these national standards is an important Federal responsibility that supports interstate and international commerce by providing assurances regarding the health of animals and products being moved or traded.

APHIS is leading the interagency collaborative effort to increase the effectiveness of aquatic animal health efforts in the United States. The Secretary of Agriculture's Advisory Committee on Animal Health recently appointed a Subcommittee on Aquatic Animal Health. APHIS is a key member of the Joint Subcommittee on Aquaculture, a statutory committee that operates under the National Science and Technology Council of the White House Office of Science and Technology Policy. APHIS enters into limited cooperative agreements with State animal health and wildlife agencies and Native American Tribes to support surveillance efforts. APHIS, States, Tribes, and the industry collaborate regularly on policy and guidelines. APHIS also works with international trading partners to facilitate safe trade in aquatic animals and products.

Funding for this program improves preparedness, surveillance, and response to aquatic animal health issues, and reduces the likelihood of disease spread resulting in larger and more serious disease outbreaks.

Approximately 74 percent of the Aquatic Animal Health program funding supports salaries and benefits, less than 5 percent is for cooperative agreements and programmatic contracts, and the remaining funding supports normal operating costs such as travel, supplies, and rent and utilities.

Pay Increase - redirect (+\$21,000)

An increase of \$21,000 for pay costs which includes \$5,000 for annualization of the FY 2014 pay raise and \$16,000 for the anticipated FY 2015 pay raise.

- (c) A decrease of \$2,117,000 and 2 staff years for the Avian Health program (\$52,340,000 and 196 staff years available in 2014).

The Avian Health program protects the health of avian species, improving the quality, productivity, and economic viability of the poultry industry valued at more than \$35 billion. APHIS activities include disease prevention, monitoring and surveillance, and investigation and response actions undertaken when avian health issues are identified. APHIS' surveillance programs for avian species detect foreign, emerging, zoonotic, and domestic diseases that could have a substantial impact on domestic production and the economy. Surveillance information verifies and documents that certain diseases do not exist in the poultry populations, thus facilitating trade and protecting public health. APHIS also maintains regulations and program standards and guidelines that direct avian health activities at both the Federal and State/Tribal level. Establishing and maintaining these national standards is an important Federal responsibility that supports interstate and international commerce by providing assurances regarding the health of animals and products being moved or traded.

APHIS' avian health program primarily focuses on notifiable avian influenza (NAI), which are the forms of avian influenza that must be reported to the World Organisation for Animal Health (OIE) due to their potential for health threat and disease spread. Annually, APHIS' funding supports more than two million tests in commercial poultry and more than 200,000 tests in smaller premises such as backyard birds and the Live Bird Marketing System (LBMS). NAI findings must be investigated or addressed to prevent mutation of low pathogenic strains into highly pathogenic strains that can devastate the domestic poultry population, close export markets to U.S. poultry and poultry products, and cause disease and death in humans. Without this program, a lack of national standards would likely lead to a patchwork of State-level requirements that would diminish interstate commerce and the United States' credibility with international trading partners. The cost of an outbreak of highly pathogenic avian influenza (HPAI) could be staggering. If an HPAI outbreak were to occur similar to that in the early 1980s in Pennsylvania, it has been estimated that the direct cost of eradication would be more than \$222 million and indirect costs such as to the poultry industry would be more than \$924 million (in current dollars).

As a result of the LBMS program and the surveillance and response efforts by APHIS and the States, the incidence of low pathogenic avian influenza (LPAI) on the LBMS has decreased steadily. While the number of premises sampled has remained the same, the number of LBMS found positive with avian influenza (AI) in FY 2013 was 4. This represents a significant improvement from the 29 found positive in FY 2007. The positive premises were depopulated, cleaned, and disinfected according to established standards. APHIS' program for AI surveillance in the LBMS, backyard poultry and upland game birds represents support for thousands of small and/or independent farmers and producers, therefore allowing access to markets for these entities.

In addition to reducing the impact on producers, States, and Tribes, APHIS' rapid response to NAI findings also facilitates exports. For example, during an outbreak of HPAI in 2004 in Texas, some major importers of U.S. poultry placed regional bans instead of countrywide bans, allowing non-affected areas to continue trade. These negotiations have been successful because our surveillance includes frequent follow-up testing when a suspect AI finding is detected as well as testing contact birds and premises to ensure the virus has not spread.

The National Poultry Improvement Plan (NPIP) has been a successful program for decades. It is a cooperative Federal-State-industry surveillance program that allows the U.S. to certify to our trading partners that many classes of poultry (e.g., egg- and meat-type chicken breeding stock, breeding turkeys, upland game bird, waterfowl, and exhibition poultry) originate from flocks that are monitored or are free of

diseases such as salmonella, mycoplasma, and NAI. APHIS provides most of the funding for the program through cooperative agreements with States to enhance NAI surveillance and control and to aid in the diagnosis, control, and prevention of the spread of NAI in poultry populations. In 2013, APHIS performed approximately 1.8 million tests through NPIP. By supporting the poultry industry's ability to market, the NPIP supports thousands of jobs in the major poultry producing States. It is for this reason that the NPIP will not be affected by the requested reduction to Avian Health. As an additional means of support, APHIS is currently streamlining NPIP regulations to allow them to be more easily updated.

Internationally, USDA works closely with organizations such as the OIE, the United Nations' Food and Agriculture Organization (FAO), and the World Health Organization to assist HPAI H5N1-affected regions with disease prevention, management, and eradication activities. APHIS provides training and support overseas to respond to AI outbreaks to prevent the disease from entering the United States and has assisted foreign governments in reducing the severity and number of poultry and human deaths due to AI. Collaborative border programs led to the implementation of a U.S./Mexico Wildlife Disease Border Surveillance Plan allowing cross border surveillance for AI. By helping countries prepare for, manage, or eradicate HPAI H5N1 outbreaks, APHIS has reduced the risk of the disease spreading from overseas to the United States.

The Avian Health program continuously evaluates its activities to ensure it is operating efficiently. For example, the program has increased the use of controlled-marketing where flocks can continue to be slaughtered and receive a market value as a cost-effective alternative to depopulating bird flocks when LPAI is detected in the absence of disease. Other operational changes include reducing the number of APHIS personnel used as instructors in international training courses by 70 percent. APHIS has used the "train the trainer" process and transferred the knowledge to overseas collaborators such as FAO, OIE, and non-governmental organizations.

Because of the improving global AI situation and the completion of significant preparedness projects, APHIS is proposing a \$2.117 million decrease for the Avian Health program to reduce operations based on known risk. In addition, with knowledge gained regarding AI in wild bird populations, APHIS can reduce levels of testing and investigations conducted of mortality events in wild birds. At the requested funding level, APHIS will be able to maintain program activities designed to protect domestic poultry (e.g., commercial production and live bird markets) and detect disease introduction into U.S. poultry. Again, the reduction would not impact the Agency's support for the NPIP.

Without the remaining funding for this program, there would be reduced preparedness, surveillance and response to avian health issues that would increase the likelihood of disease spread resulting in larger and more serious disease outbreaks. In addition, a lack of national standards would likely lead to a patchwork of State level requirements that would diminish interstate commerce and cause a loss in international credibility regarding the U.S. animal health status.

Approximately 50 percent of the Avian Health funding will be used for salaries and benefits, 45 percent will be used for cooperative agreements and programmatic contracts. The remaining funding supports normal operating costs such as travel, supplies, rent and utilities.

Pay Increase – redirect (+\$189,000)

An increase of \$189,000 for pay costs which includes \$47,000 for annualization of the FY 2014 pay raise and \$142,000 for the anticipated FY 2015 pay raise.

(d) Cattle Health program (\$92,500,000 and 555 staff years available in 2014).

The Cattle Health program protects the health of cattle and improves the quality, productivity and economic viability of the cattle industry (meat and milk) valued at \$85 billion. APHIS activities include disease prevention, monitoring and surveillance, and investigation and response actions undertaken when cattle health issues are identified. APHIS also maintains regulations, program standards, and guidelines

that direct cattle health activities at both the Federal and State/Tribal level. Establishing and maintaining these national standards is an important Federal responsibility that supports interstate and international commerce by providing assurances regarding the health of animals and products being moved or traded.

APHIS conducts preventive programs to keep exotic pests and diseases out of the country. APHIS collaborates with countries in Central America to prevent the entrance of screwworm and other high-risk transboundary animal diseases, thereby creating a barrier against the spread of disease into the United States. Preventing the spread of screwworm into the United States is estimated to save approximately \$53 million annually. In 1976, a screwworm outbreak in Texas resulted in an estimated \$113 to \$150 million in losses. Nearly four decades later, screwworm damage has been contained because of the APHIS preventative program that continues to keep this serious pest away from U.S. livestock. As a result of successful screwworm eradication programs, most Central American countries have been declared screwworm-free, helping to create an effective barrier to the United States. In addition to screwworm, APHIS works cooperatively with Mexico and other countries in Central America to assist with the detection and control of foot-and-mouth disease (FMD) and bovine spongiform encephalopathy (BSE).

APHIS, States, Tribes, and industry collaborate regularly and exchange ideas on policy and guidelines. The agency also works with international trading partners to facilitate safe trade in cattle and cattle products. APHIS enters into cooperative agreements with State animal health and wildlife agencies and Native American Tribes to carry out surveillance and response programs. APHIS also works through the Binational Committee with Mexico to discuss issues of mutual concern including cattle fever tick, brucellosis, and tuberculosis (TB).

Through cooperative efforts between APHIS and the State of Texas, the Cattle Health program has been 100 percent effective in preventing cattle fever tick from spreading within the United States. One study estimates the costs of a relatively small cattle fever tick outbreak in the free area of Texas would cause losses of \$123 million during the first year of the outbreak.

Early detection of devastating diseases such as FMD is vital; an article published in the Journal of Veterinary Diagnostics and Investigations estimated that losses climb from \$2.3 billion if an FMD outbreak is identified at day 7 to \$69 billion if the outbreak is not detected until day 22. This illustrates the value of the Animal Disease Traceability program's capability to quickly locate and contain a disease or incident. It also illustrates the consequence of a slow detection or delayed response. APHIS' cattle surveillance programs are designed to quickly detect foreign, emerging, zoonotic and domestic animal diseases that could have a substantial impact on domestic producers and the economy; cause loss of consumer confidence in the U.S. food supply; and/or have substantial economic impact to responding State, Tribal, and Federal animal health agencies. In addition, surveillance information verifies and documents that certain diseases do not exist in the cattle population, thus facilitating trade and protecting public health. BSE surveillance information from the APHIS Cattle Health program has been instrumental in allowing the United States to maintain the export market for all beef, which was worth approximately \$5 billion in FY 2013.

The Cattle Health program continues to make great strides toward eradicating brucellosis from domestic cattle and bison; wildlife in the Greater Yellowstone Area remains the last known reservoir of brucellosis in the United States. The State of Wyoming conducted an economic analysis that indicated that should brucellosis eradication efforts be discontinued, the costs of producing beef and milk would increase by an estimated \$80 million annually in less than 10 years as the disease would again become active. With the successful eradication of brucellosis in domestic cattle, the program is streamlining surveillance efforts while ensuring that surveillance data are sufficient to demonstrate a national disease-free status to trading partners.

APHIS is also looking at ways it can use science to identify opportunities for greater flexibility in its regulations and other program practices. The Cattle Health program also continues to make progress in eradicating TB from domestic livestock. Iowa State University conducted a study that suggests more than \$13 billion has been returned to the U.S. economy in terms of avoided economic losses since the TB

eradication program began. Instead of recommending whole-herd depopulation as the primary option to manage TB-affected herds, APHIS now bases its approach on the circumstances surrounding each herd. For those herds where depopulation is not recommended, the herd undergoes a test-and-remove protocol, gaining significant savings of Federal dollars while continuing to eliminate the disease.

Funding for this program increases preparedness, surveillance and response to cattle health issues. These activities reduce the likelihood of disease spread resulting in larger and more serious disease outbreaks.

Approximately 56 percent of the Cattle Health funding is for salaries and benefits, 22 percent is for cooperative and programmatic contracts, such as those that support BSE sampling, cattle fever tick treatment, and lab/blood sampling. The remaining funds support normal operating costs such as travel, supplies, rent and utilities.

Pay Increase – redirect (+\$532,000)

An increase of \$532,000 for pay costs which includes \$131,000 for annualization of the FY 2014 pay raise and \$401,000 for the anticipated FY 2015 pay raise.

(e) Equine, Cervid and Small Ruminant Health program (\$19,500,000 and 120 staff years available in 2014).

The Equine, Cervid, and Small Ruminant Health (ECSRH) program protects the health and improves the quality, productivity, and economic viability of the equine, cervid, sheep, and goat industries. These industries have a direct annual economic effect of \$39 billion for equine, \$894 million for cervid, and \$785 million for sheep. The direct economic impact for goats has not been reported but is likely to be approximately \$400 million. APHIS activities include monitoring and surveillance, investigation and response, and disease prevention and preparedness actions taken when health issues are identified. APHIS' monitoring and surveillance activities detect foreign, emerging, zoonotic, and domestic diseases that could substantially impact the economy. APHIS works with international and domestic trading partners to facilitate safe trade and establish minimum standards to allow safe trade in equine, cervids, and small ruminants and their products.

Monitoring and Surveillance

APHIS conducts monitoring and surveillance activities with States to protect the health of the equine, cervid, and small ruminant industries. Furthermore, APHIS works with States to ensure that cases of diseases of trade concern found in equine, cervids, and small ruminants are reported to the World Organisation for Animal Health (OIE). In 2013, the ECSRH program conducted disease surveillance and/or monitoring for the following diseases: contagious equine metritis (CEM), chronic wasting disease (CWD), Eastern equine encephalitis (EEE) and Western equine encephalitis, equine herpes virus, equine piroplasmiasis (EP), equine infectious anemia (EIA), scrapie, TB, vesicular stomatitis virus (VSV), and West Nile virus (WNV).

Scrapie is a fatal, degenerative disease that affects the central nervous system of sheep and goats. The industry loss due to classical scrapie is estimated to be \$10 to \$20 million annually, not including lost market opportunities due to export restrictions. APHIS performs the following activities to eradicate classical scrapie from the United States: live-animal, necropsy, and slaughter testing to identify infected animals; genetic testing to reduce the susceptibility of sheep flocks to scrapie and to identify which scrapie exposed sheep from infected and source flocks need to be removed to reduce the risk of recurrence; and testing of exposed animals that have moved out of infected flocks and animals exposed due to sale or movement of exposed or positive animals. In FY 2013, APHIS tested 44,955 samples from sheep and goats for scrapie, compared to 42,299 samples tested in FY 2012. This 6 percent increase is largely due to increased surveillance of scrapie in goats. Since 2003, approximately, there has been a 90 percent decrease in the percentage of positive scrapie sheep found at slaughter (adjusted for face color). At the end of FY 2013, the percent of cull sheep found positive at slaughter and adjusted for face color was 0.0146 percent

compared to 0.0057 percent in FY 2012. During this final phase in the eradication effort, it is likely that the numbers will fluctuate from year to year.

To aid in the eradication of bovine TB in the United States, APHIS conducts surveillance testing on captive cervids for the disease. In FY 2013, APHIS began using a new primary screen serology test that uses a blood serum sample instead of a skin test, and a secondary test to further discriminate the primary test positives. The new tests are more sensitive and specific, reduce animal handling, and produce more timely results. Since the tests were introduced in February 2013, the program has tested 9,500 cervids.

In FY 2013, the program tested approximately 18,100 farmed cervids for CWD, a fatal, degenerative disease that affects the central nervous system and lymphoid system of cervids. Through this routine surveillance, no new CWD cases were reported in farmed cervids in FY 2013. The last CWD positive herd was reported in FY 2012 in an Iowa white tail deer herd. Twelve positive herds remain (seven elk herds in Colorado, three elk herds in Nebraska, one white tail deer herd in Iowa, and one red deer herd in Minnesota).

APHIS safeguards the equine industry by helping State animal health officials monitor equine diseases that threaten animal and human health. In 2013, APHIS continued active and passive surveillance activities in all States for vesicular stomatitis with deployment of foreign animal disease diagnosticians for investigation of suspect cases. As of December 12, 2013, APHIS had reported 338 cases of equine WNV and 181 cases of EEE.

Investigation and Response

APHIS conducts investigations, responds to disease outbreaks, and enforces regulations that safeguard the health of the nation's livestock. In FY 2013, APHIS assisted in the epidemiological investigation and cleanup of 11 flocks to which scrapie-positive animals were traced. The Agency worked with affected flock owners to identify, indemnify, and remove at-risk animals to minimize the risk of disease recurrence and spread. Upon completion of the cleanup plan, flocks are placed on post-exposure management and monitoring plans for five years.

Although no new TB cases in captive cervids were detected in FY 2013, two captive cervid herds in Michigan remain under an indefinite quarantine since testing positive in 2009. The herds are located in an area of northeast Michigan where free-ranging white-tailed deer are a reservoir for bovine TB. APHIS is working with the State of Michigan to mitigate the risk of transmission from this wildlife reservoir to livestock.

Disease Prevention and Preparedness

APHIS' Herd Certifications Programs (HCPs) for CWD, TB, and scrapie provide criteria and minimum Federal standards for participating livestock owners to meet. APHIS reviews State applications, approves State CWD HCPs that meet the requirements of the national CWD HCP rule, conducts periodic reviews to ensure compliance, and supports confirmatory testing of presumptive cases. There are currently 30 States participating in the national CWD HCP – 21 have Approved Status and 9 have Provision Approved Status. States that meet all the minimum CWD HCP program requirements have Approved Status and States that do not meet all CWD HCP program requirements but have developed a work plan and time frame with APHIS to complete those requirements have Provision Approved Status.

The TB program recognizes three levels of herd qualifications for captive cervid herds. These three levels are Accredited, Qualified, and Monitored, and are based on testing over a specified time frame. At the end of FY 2013, there were 1,049 flocks enrolled in the Scrapie Flock Certification Program (SFCP). Of these, 439 were certified (i.e., the flock has a reduced scrapie risk) and 13 were export certified (i.e., the flock has a negligible scrapie risk). Participation in the SFCP provides producers the opportunity to protect their animals from scrapie and enhance the marketability of their animals by certifying their origin in flocks with minimal scrapie risk.

In FY 2013, there were outbreaks or ongoing occurrences of EP, CEM, VSV, and equine herpes myeloencephalopathy. APHIS supported State and industry responses to these outbreaks with coordination, diseases-specific technical guidance, epidemiological expertise, database maintenance, diagnostic assistance and situation reports. APHIS disseminated a variety of information on equine diseases including WNV and EEE.

A new, privately operated, equine import quarantine station in Chicago was approved. APHIS conducted equine import testing and reported test results within one day to meet the 42-hour equine quarantine target. In 2013, APHIS ran approximately 20,000 tests for dourine and glanders tests for equine importation, two highly contagious diseases that affect equines as well as other animals. APHIS provided laboratory certification and annual proficiency testing for EIA, equine viral arteritis, and EP.

Under the Commercial Transportation of Equines for Slaughter Act (9 CFR Part 88), APHIS' authority and role is to ensure the humane transport of U.S. origin equines to slaughter. A final rule, published in 2011, extended the regulatory protections to horses delivered to intermediate points. In 2013, the program trained 150 Federal, State and industry personnel on enforcing the regulation.

Regulatory Development

In FY 2013, APHIS revised the SFCP. The revised program emphasizes targeted sampling of participating sheep and goats for scrapie over passive observation. The new approach will enhance scrapie surveillance in the United States and provide greater assurance to trading partners that participating flocks that reach Export Certified status in the program are at negligible risk.

To further ensure the health of animals moving across State lines, APHIS plans to draft two proposed rules requiring disease testing before interstate movement. These rules include new testing requirements for EIA, a viral disease of equines that can spread to affect the health and productivity of the animal, and a TB/brucellosis rule that included interstate testing requirements for captive cervids. The rules would provide a comprehensive, flexible, and risk-based approach to managing EIA and TB/brucellosis. In November 2012, a CWD Working Group was formed. This group, which is comprised of representatives from the cervid industry, State regulatory agencies (Agriculture and Wildlife), National Animal Health Laboratory Network and The National Veterinary Services Laboratories, and APHIS personnel, provides input on the revisions to the CWD Program Standards, a companion guidance document to the CWD rule. Prior to being implemented, APHIS plans to seek public comments in the *Federal Register*.

The Sheep and Goat Health program protects the health and improves the quality, productivity, and economic viability of the sheep and goat industry valued at \$705 million. Surveillance programs for sheep and goats are designed to quickly detect foreign, emerging, zoonotic, and domestic diseases which could have a substantial impact on domestic producers and the economy; create loss of consumer confidence in the U.S. food supply; and/or have substantial economic impact to responding State, Tribal, and Federal animal health agencies. APHIS' National Scrapie Eradication Program effort continues to make steady progress toward eradicating classical scrapie from the United States. Producers have seen reduced production losses caused by scrapie due to the success of the program. The prevalence of classical scrapie in U.S. sheep has decreased by more than 85 percent since 2003. Eleven new infected or source flocks were identified in FY 2013, compared to 179 in FY 2005. APHIS enters into cooperative agreements with State animal health and wildlife agencies and Native American Tribes to carry out surveillance and response programs.

APHIS has implemented numerous improvements, reducing costs and improving the efficiency of program activities. The Agency has saved more than \$5 million in indemnity costs since FY 2005 as a result of the adoption of a genetics-based flock clean up strategy. This genetics-based strategy recognizes that there are sheep that are genetically resistant to scrapie and that exposed genetically-resistant animals do not need to be culled. Implementing the strategy reduced the number of sheep that are required to be depopulated or permanently restricted by approximately 60 percent.

APHIS' main cervid activities are testing approximately 15,000 captive cervids for tuberculosis (TB) each year and supporting the chronic wasting disease (CWD) herd certification program (HCP). The joint TB and brucellosis rule proposes to bring cervids into the regulatory program for brucellosis, as requested by stakeholders. As a result, surveillance will be enhanced and the number of captive cervids that are tested for TB annually is expected to increase. The CWD HCP allows participating States to enroll herd owners to meet minimum Federal standards to achieve and maintain a herd certification status. APHIS approves State applications for the national voluntary CWD herd certification program, conducts periodic reviews to ensure compliance, and supports confirmatory testing of presumptive CWD cases.

USDA is required to report to the World Organization for Animal Health any cases of foreign animal disease in the United States, including contagious equine metritis and equine piroplasmiasis. States are requested to report to USDA annually any cases of domestic equine diseases such as equine herpes virus, equine infectious anemia, Eastern and Western equine encephalitis, and West Nile virus. APHIS provides information on testing and treatment protocols for select non-foreign equine diseases such as WNV. APHIS collects information, and coordinates response efforts and testing protocols for domestic equine diseases. Additionally, APHIS protects the welfare of equines destined for slaughter. Approximately 100,000 horses are exported from the United States annually for slaughter in Canada and Mexico. To the extent allowed by law, APHIS enforces the Commercial Transport to Slaughter Act, which ensures that these horses are afforded welfare provisions during their transport.

Continued program funding increases the preparedness, surveillance, and response to equine, cervid, sheep, and goat health issues, while decreasing the likelihood of disease spread.

Approximately 67 percent of the Equine, Cervid, and Small Ruminant Health funding will be used for salaries and benefits, less than 8 percent for cooperative agreements and programmatic contracts, and the remaining supports normal operating costs such as travel, supplies, rent and utilities.

Pay Increase – redirect (+\$117,000)

An increase of \$117,000 for pay costs which includes \$29,000 for annualization of the FY 2014 pay raise and \$88,000 for the anticipated FY 2015 pay raise.

(f) National Veterinary Stockpile program (\$3,722,000 and 1 staff year in 2014).

The National Veterinary Stockpile (NVS) is the nation's repository for critical veterinary countermeasures and a vital component of USDA's emergency preparedness and response efforts. NVS serves as a primary source of materials, supplies, and equipment needed by Federal, State, Tribal and local officials to respond, control, and contain foreign animal and other significant animal disease outbreaks. NVS includes animal handling equipment, animal vaccines, pharmaceutical products, other veterinary supplies, and transportation and response support services, which are all critical countermeasures in the event of a damaging animal disease event/occurrence.

APHIS maintains the capacity to respond to any significant animal health event and the Agency has specific countermeasures ready to deploy within 24 hours of detection for 4 of the 15 most significant animal disease of concern. The program also has contracts in place to provide animal handling equipment and other vital materials in the event of a protracted emergency. Rapid deployment of veterinary countermeasures through the NVS can help reduce the magnitude of animal health events reducing costs incurred by producers, consumers, and response agencies. NVS has the capability to protect a team of 1,500 responders for 63 days and maintain antivirals to support 3,000 responders for 6 weeks.

The NVS assists States, Tribes, and Territories through operational planning, training events, and test exercises in the rapid acquisition, processing, and distribution of these countermeasures during an event. To maximize cost-efficiency and response, APHIS personnel work with academia and industry modelers to develop a scientifically defensible estimate of the quantity of supplies to stockpile for each of the priority

diseases outlined in APHIS' High-Consequence Foreign Animal Disease and Pests Fact Sheet, - including contract terms that specify stock rotations – and continuously evaluate supply chains seeking opportunities to reduce delivery time. The NVS partners with Federal agencies for scientific input on current commercially available veterinary countermeasures such as vaccines, diagnostic test kits, and pharmaceuticals; develops criteria for deployment, including conducting exercises; and, determines ways to leverage stockpiles.

The capacity of the stockpile is commensurate with the resource level. Without NVS' efforts, if outbreaks were to occur, national response efforts would quickly deplete State and industry response inventories and overwhelm the private sector, leading to larger and more serious disease outbreaks. For FY 2015, the NVS plans to hold a full-scale exercise in Wisconsin to test the State's ability to logistically respond to a damaging animal disease. This exercise is being developed in response to a request from the Wisconsin Department of Agriculture, Trade, and Consumer Protection. Wisconsin is among the top States in value of U.S. sales from dairy products, and could be significantly affected by an outbreak of FMD, for example.

Approximately 6 percent of the NVS program funding supports salaries and benefits. Approximately 66 percent funds contracts and agreements. The remaining supports normal operating costs such as travel, supplies, rent and utilities.

Pay Increase – redirect (+\$1,000)

An increase of \$1,000 for pay costs which includes \$300 for annualization of the FY 2014 pay raise and \$700 for the anticipated FY 2015 pay raise.

(g) Swine Health program (\$22,250,000 and 120 staff years available in 2014).

The Swine Health program protects the health and improves the quality, productivity, and economic viability of the swine industry valued at more than \$20 billion. APHIS activities include disease prevention, monitoring and surveillance, and investigation and response actions undertaken when swine health issues are identified. APHIS also maintains regulations and program standards and guidelines that direct swine health activities through the use of cooperative agreements at both the Federal and State/Tribal level. Establishing and maintaining these national standards is an important Federal responsibility that supports interstate and international commerce by providing assurances regarding the health of animals and products being moved or traded.

Early detection of devastating diseases, such as classical swine fever or foot-and-mouth disease, is vital. Surveillance programs for swine are designed to quickly detect foreign, emerging, zoonotic and domestic diseases that could have a substantial impact on domestic producers and the economy; cause loss of consumer confidence in the U.S. food supply; and/or have substantial economic impact to responding State, Tribal, and Federal animal health agencies. APHIS' surveillance efforts for classical swine fever include the collection of more than 15,000 samples annually from swine on farms; samples from slaughter samples; and, diagnostics laboratory samples. The program is pursuing a comprehensive and integrated approach to surveillance where surveillance streams are flexible and scalable as priorities and needs change. Surveillance information verifies and documents that certain diseases do not exist in the swine populations, thus facilitating trade and/or protecting public health.

A major example of APHIS' accomplishment in successfully responding to serious animal health threats is the elimination of pseudorabies from U.S. commercial swine herds. Due to APHIS' efforts, every State in the country has enjoyed PRV-free status for more than 9 years, with a net benefit estimated to be more than \$170 million. On the heels of this success, APHIS is considering ways to modernize the existing regulatory framework through a comprehensive, risk- and science-based approach that enhances surveillance while reducing financial and regulatory burdens on States and producers. APHIS continues to work with States, Tribes, and industry to further develop new approaches to surveillance, monitoring, and disease response for PRV, swine brucellosis, and other livestock pests and diseases. For example, APHIS developed statistical and epidemiological methods to increase the efficiency of animal health

surveillance in the United States by targeting high-risk sampling for swine diseases, including PRV and brucellosis. APHIS has done so without sacrificing the quality of the surveillance system for those diseases.

The program enforces the Swine Health Protection Act, which protects the commerce, health, and welfare of U.S. citizens by ensuring that States that allow food waste to be fed to swine do not contain active disease organisms that pose a risk to the domestic swine population. Raw garbage is one of the primary media through which numerous infectious or communicable diseases of swine are transmitted. APHIS monitors markets, conducts inspections of licensed facilities, monitors the disposition of food waste at restaurants and food service institutions, and reviews handling of food waste at international air and sea ports. In cooperation with the industry and the Centers for Disease Control, the program has also developed a surveillance program for swine influenza.

APHIS, States/Tribes, and industry collaborate regularly on policy and guidelines and exchange ideas. The Agency also works with international trading partners to facilitate safe trade in swine and swine products. APHIS enters into cooperative agreements with State animal health and wildlife agencies and Native American Tribes to carry out surveillance and response programs.

Without funding for this program, there would be reduced preparedness, surveillance, and response to swine health issues that would increase the likelihood of disease spread resulting in larger and more serious disease outbreaks. In addition, a lack of national standards would likely lead to a patchwork of State level requirements that would diminish interstate commerce and cause a loss in international credibility regarding the U.S. animal health status.

Approximately 67 percent of the Swine Health funding is used for salaries and benefits, and 6 percent is used for cooperative agreements. The remaining funds support normal operating costs such as travel, supplies, and rent and utilities.

Pay Increase – redirect (+\$103,000)

An increase of \$103,000 for pay costs which includes \$25,000 for annualization of the FY 2014 pay raise and \$78,000 for the anticipated FY 2015 pay raise.

(h) Veterinary Biologics program (\$16,417,000 and 109 staff years available in 2014).

The Veterinary Biologics program safeguards the health of animals by ensuring that veterinary biological products manufactured and/or marketed in the United States meet purity, safety, potency, and efficacy standards as required by the Virus-Serum-Toxin Act. These products, valued at more than \$1.35 billion domestically, are developed for the diagnosis, prevention, and treatment of animal diseases, and are used in all of the major farmed species (cattle, poultry, swine, and sheep), as well as horses, dogs, cats, and other pets.

The Veterinary Biologics program licenses veterinary biological products; issues export certifications; evaluates and tests new products; inspects facilities and products; investigates non-compliance; and conducts post-marketing surveillance to ensure that manufacturers remain in compliance with all laws, regulations, and policies relating to this industry. APHIS' comprehensive approach ensures only quality, Federally-licensed veterinary biological products are available to U.S. customers. More than 100 different manufacturers hold licenses, and their licensed products are used for the control of more than 215 animal diseases. APHIS ensures that animal owners are protected from contaminated, worthless, dangerous, and/or harmful products.

Each year, the Veterinary Biologics program issues more than 35 new/renewed licenses/permits for the control or diagnosis of existing or new/emerging animal diseases while maintaining oversight of more than 2,000 previously licensed veterinary biological products. Licensed products used for domestic animal diseases prevent illness and lost production in livestock; these products are also used to control and prevent

zoonotic diseases such as rabies and influenza. APHIS expedites licensing for economically significant and/or zoonotic diseases such as influenza. Annually, APHIS reviews and processes more than 3,600 Certificates of Licensing and Inspection and issues more than 1,000 Export Certificates for veterinary biological products. Vaccines licensed by APHIS for foreign animal diseases, such as foot-and-mouth disease, can control or limit the spread of these economically catastrophic animal diseases, while pre-harvest vaccines reduce the prevalence of bacteria, thereby improving animal health.

APHIS' main strategy to gain and maintain compliance with its regulations is through the education of both licensed and unlicensed entities. APHIS annually inspects, on average, at least 45 biologics manufacturing sites to assure compliance. More than 99 percent of the unlicensed entities investigated either move towards licensure of the veterinary biological product in question or cease the objectionable activity.

APHIS partners with domestic agricultural research organizations, veterinary biologics manufacturers, commodity producers, and veterinary diagnostic organizations to address animal disease issues from a holistic approach. The Agency gathers input from organizations such as the American Veterinary Medical Association, and international groups such as the International Cooperation on Harmonization of Technical Requirements for the Registration of Veterinary Medicinal Products, to develop and harmonize veterinary biologics standards, promoting the industry's economic viability abroad. APHIS also cooperates with veterinarians and the biologics industry to monitor any undesirable outcomes from using animal vaccines and other biological products. In FY 2013, the Agency received 434 reports of such "adverse events." This surveillance serves as an alert system for detecting the possibility that a product may not be performing as intended. It also provides essential baseline information about the behavior of a vaccine or other biological product under everyday field conditions.

Veterinary biologics derived from biotechnology and other modern technologies have greatly benefited livestock production and trade, animal well-being, and zoonotic disease protection. For example, biotechnology derived biologics played a key role in efforts to eradicate the pseudorabies virus (PRV) from commercial swine in the United States. The Federal-State-industry led PRV eradication program used 'marker' vaccines and companion diagnostic kits to combat the disease. The vaccine virus had a specific gene deleted so that antibodies to that gene were not produced in the vaccinated animal. The companion diagnostic kits tested for those antibodies, which would be present in an infected animal. This provided the means to differentiate vaccinated animals from infected animals, which would otherwise both test positive on a PRV antibody screening test. With the help of this technology, U.S. swine herds were recognized as PRV-free in 2004. APHIS believes that biologics derived from this technology and other modern technology will continue to make valuable contributions to the biologics industry in the future.

Overall, approximately 60 percent of the program's funding supports salaries and benefits of personnel and less than 1 percent of funding is for contracts and agreements. The remaining funds support substantial costs related to supplies and normal operating costs such as travel, rent and utilities.

Pay Increase – redirect (+\$106,000)

An increase of \$106,000 for pay costs which includes \$26,000 for annualization of the FY 2014 pay raise and \$80,000 for the anticipated FY 2015 pay raise.

(i) Veterinary Diagnostics program (\$31,540,000 and 190 staff years available in 2014).

Laboratory and diagnostic services are an essential component of the U.S. animal health infrastructure. APHIS' Veterinary Diagnostics program develops and maintains accurate, rapid laboratory diagnostic support for national animal disease prevention, detection, control, and eradication programs; maintains national and international laboratory recognition with the highest quality reference assistance; provides assistance to other Federal agencies and State laboratories, educational institutions, and foreign governments in the diagnosis of animal diseases; and conducts developmental projects for rapidly

advancing technologies. APHIS' reference laboratory services for animal disease diagnosis provide both direct veterinary diagnostic capabilities and assistance to other diagnostic laboratories through animal disease information, technical guidance, reagents, and reference materials.

APHIS provides national leadership in coordination of the National Animal Health Laboratory Network and emergency laboratory response. The Veterinary Diagnostics program trains Federal, State, university, and foreign laboratory personnel; provides proficiency tests and reagents; and develops improved diagnostic technologies. The program approves and certifies laboratories to conduct tests on behalf of USDA for animal health program diseases, as well as movement and export certification. The program also validates diagnostics for program use, increasing the national capacity and efficiency of meeting veterinary diagnostic needs. APHIS' involvement in certification and proficiency testing programs of U.S. veterinary diagnostic laboratories maintains the credibility of U.S. diagnostic test results in the international marketplace.

APHIS conducts more than 500,000 diagnostic tests per year on approximately 250,000 samples. The program screens an estimated 2,500 diagnostic and surveillance submissions for foreign animal diseases, including those diseases that could have a severe impact on the nation's economy such as foot-and-mouth disease (FMD) and classical swine fever. APHIS' National Veterinary Services Laboratories (NVSL) serves as the United States' official diagnostic reference laboratory for agricultural animal diseases and also provides expertise and guidance on diagnostic techniques for these diseases both in the United States and overseas. NVSL is a World Organisation for Animal Health (OIE) reference laboratory for 13 highly significant veterinary diseases, including highly pathogenic avian influenza, anthrax, FMD, exotic Newcastle disease (END), West Nile virus, and others. Although the timing varies based on the disease, APHIS generally conducts proficiency tests annually. This program needs to maintain proficiency for an indefinite period of time for eradicated diseases and needs to constantly monitor these diseases for possible re-introductions to maintain readiness in case of an outbreak situation. In addition, the Food and Agriculture Organization of the United Nations has designated NVSL as a Reference Centre for FMD and other vesicular diseases of the Americas and the Caribbean, animal influenza, and END, as well as for bovine tuberculosis and Johne's disease. NVSL's services improve science-based decisions in disease detection and quarantine, which in turn result in minimizing impacts and disruptions to important domestic and international export markets.

The program provides continuing support for public health investigations that the Food and Drug Administration and Centers for Disease Control and Prevention conduct for salmonella and other zoonotic diseases. The program manufactures and distributes more than 650 reagents, many of which are not available from any other source. Customers for laboratory diagnostic services include individual farmers and ranchers, State and university diagnostic laboratories, private veterinary practitioners, animal importers and exporters, researchers, government officials, and laboratories from other countries. Without APHIS' surveillance and monitoring programs, the United States' ability to prepare and respond to animal and plant health issues would be seriously compromised, increasing the likelihood of pest and disease spread and resulting in larger and more serious outbreaks.

International Organization for Standardization (ISO)-accredited bodies conduct annual peer reviews and external audits for the Veterinary Diagnostic program. APHIS initiates corrective actions and monitors the implementation of improvements as a result of the reviews all in support of the laboratories' internationally-recognized ISO 17025 accreditation for quality. The program also participates in proficiency panel checks on an international level to compare the quality of testing techniques used by APHIS to those used by other countries.

Early detection of diseases can save billions of dollars. An article published in the Journal of Veterinary Diagnostics and Investigations estimated that a detection of FMD identified on day 7 would have an impact of \$2.3 billion on the economy; if not identified until day 22, it could have an impact of \$69 billion. The program's testing services for foreign animal disease investigations are available 24 hours a day, 7 days a week.

Approximately 48 percent of the Veterinary Diagnostics funding will be used for salaries and benefits, and 6 percent will be used for cooperative agreements. The remaining supports operating costs such as equipment, supplies, travel, rent and utilities.

Pay Increase – redirect (+\$185,000)

An increase of \$185,000 for pay costs which includes \$46,000 for annualization of the FY 2014 pay raise and \$139,000 for the anticipated FY 2015 pay raise.

(j) Zoonotic Disease Management program (\$9,523,000 and 45 staff years available in 2014).

The Zoonotic Disease Management program enhances the local, State, national, and international collaborative effort to promote healthy animals, people, and eco-systems. This is commonly referred to as “One Health.” The Zoonotic Disease Management program provides national leadership to the animal health component for One Health issues and events and contributes animal health expertise, infrastructure, networks, and systems. APHIS develops strategies and policies for how animal health agencies can effectively engage with public health counterparts, issues guidance and standard operating procedures, offers training to enhance responses to issues, disseminates information, and ensures reports are published in various media for widespread learning from event management.

According to the World Bank, estimates show that global economic losses from zoonotic diseases, such as nipah virus, West Nile virus, severe acute respiratory syndrome, highly pathogenic avian influenza, bovine spongiform encephalopathy, and Rift Valley fever totaled at least \$80 billion between 1997 and 2009. The scope of APHIS’ activities extends beyond zoonotic agents to also include food safety, antimicrobial resistance, chemical contamination of animals through the environment or feed, residues of veterinary drugs and response during natural disasters to impede the spread of diseases such as Q fever and influenza.

The Zoonotic Disease Management program monitors national and international environments for health events that may benefit from APHIS involvement. Once events are identified, APHIS engages as the situation warrants. While issues/events addressed vary each year, core ongoing surveillance activities do not. To date, the program has participated in collaborative efforts and activities to prevent outbreaks of salmonella infections in humans associated with contact with live poultry from mail-order hatcheries, and provided field and laboratory support to the Centers for Disease Control and Prevention (CDC) during the investigation of a multistate Q fever outbreak associated with exposure to infected goats. An outcome of this Q fever investigation included the development of a national guidance document that provides recommendations for controlling the spread of the bacterium among humans and animals.

The program works with multiple organizations on antimicrobial resistance. Within USDA, the program works with the Agricultural Research Service, the Economic Research Service, the Food Safety and Inspection Service, the National Agricultural Statistics Service, and the National Institute of Food and Agriculture to implement the USDA Antimicrobial Resistance Action Plan. Outside of USDA, APHIS’ support focuses on research and surveillance, as the Food and Drug Administration moves forward with the actions to restrict medically important antibiotics for use in the treatment, control, and prevention of disease. The program also collects information related to antimicrobial use practices on livestock and poultry operations and performs antibiotic resistance testing in organisms of public health importance in livestock and poultry operations. APHIS’ role is strongly supported by other Federal agencies.

In an effort to prevent the spread of zoonotic diseases, APHIS, the U.S. Department of Agriculture’s National Institute of Food and Agriculture, and CDC are partnering with extension 4-H professionals from select States to create a multi-faceted education initiative for 4-H youth around the nation. This initiative will develop educational tools to introduce 4-H participants to public health concepts that will help prevent transmission of diseases between animals and humans. The partnership will also introduce 4-H youth to infectious disease science and public health. Topics will include: sources of zoonotic diseases, risk factors for disease transmission, personal prevention techniques, and zoonotic disease prevention in public places.

Approximately 90 percent of Zoonotic Disease Management funding is used for salaries and benefits, with remaining funds being used for normal operating expenses such as travel, supplies, equipment, and rent and utilities.

Pay Increase- redirect (+\$44,000)

An increase of \$44,000 for pay costs which includes \$11,000 for annualization of the FY 2014 pay raise and \$33,000 for the anticipated FY 2015 pay raise.

A decrease of \$30,380,000 and 11 staff years for Safeguarding and Emergency Preparedness/Response - Plant Health

(k) Agriculture Quarantine Inspection program (\$26,900,000 and 360 staff years available in 2014).

APHIS conducts pre-departure agricultural quarantine inspections of passengers and cargo traveling from Hawaii and Puerto Rico to the continental United States to prevent the introduction of non-native agricultural pests and diseases into the mainland. Hawaii and Puerto Rico have tropical climates with distinct ecosystems and pests. For example, a variety of economically devastating fruit flies – particularly the Mediterranean fruit fly and Oriental fruit fly – and scale pests are present in Hawaii, and these pests are easily carried long distances on fruits and cut flowers to cause significant economic damage to the mainland United States. The pre-departure inspection program facilitates the movement of travelers and cargo while preventing the entry of these pests and diseases from affecting agricultural production in the continental United States.

Because of the high volume of travelers from Hawaii and Puerto Rico to the continental United States along with the risks associated with numerous fruits, vegetables, and animal products from these areas, APHIS inspects all baggage of passengers leaving these islands (approximately 13.2 million passengers in FY 2013). As a result of the program, more than 98 percent of passengers destined for the continental United States were in compliance with agricultural quarantine regulations in FY 2013. The program partners with industry groups and State and Commonwealth counterparts to facilitate the safe movement of cargo. In Hawaii, the State Department of Agriculture conducts nursery inspections and certifies nursery stock for shipment to the U.S. mainland. These partnerships and agreements allow APHIS to promote the safe movement of quarantine material to the continental United States. In FY 2015, the program expects the compliance rate to be at least 97 percent (in line with performance for the past several years).

The Agricultural Quarantine Inspection program reduces the impact of agricultural pests and diseases, and protects and enhances plant health. In doing so, it works to facilitate access to safe, plentiful, and nutritious food. In addition, it supports rural communities by minimizing production losses and control costs, and preserving export markets for U.S. agricultural products. If funding for the pre-departure program was eliminated, the risk of pest or disease introduction from Hawaii and Puerto Rico to the mainland United States would greatly increase. Additionally, certain commodities would not be allowed entry to the continental United States without the inspections and treatments provided by the program, impacting Hawaiian and Puerto Rican producers. Maintaining the safeguards this program provides is essential, especially considering increasing U.S. consumer demand for imported fruits and vegetables in recent years.

More than 92 percent of the program's resources support salaries and benefits of inspectors and other staff. The remaining resources are for normal operating expenses such as rent, utilities, travel, and supplies.

Pay Increase – redirect (+\$334,000)

An increase of \$334,000 for pay costs which includes \$82,000 for annualization of the FY 2014 pay raise and \$252,000 for the anticipated FY 2015 pay raise.

(l) A decrease of \$3,665,000 for the Cotton Pests program (\$12,720,000 and 58 staff years available in 2014).

The Cotton Pests program, in cooperation with States, the cotton industry, and Mexico, strives to eradicate the boll weevil and pink bollworm (PBW) from all cotton-producing areas of the United States and northern Mexico. For decades, these pests have cost cotton growers tens of millions of dollars each year in control costs and crop losses. APHIS provides national coordination, operational oversight, technology development (such as sterile PBW moths), and a portion of program funding. APHIS' partners have provided more than two-thirds of the funding for the boll weevil eradication effort and most of the operational funds for PBW eradication. The program also maintains capabilities to address other cotton pests that could enter the United States. In addition, APHIS provides technical advice on trapping and treatment protocols to its partners in Mexico to aid their efforts to eradicate boll weevil and PBW. Without continued Federal funding, support and technical expertise for the final phase of eradication would not be possible, and previously eradicated cotton acreage would be vulnerable to reinfestation. Additionally, U.S. cotton production may be at risk of new pests approaching the country through the Caribbean Basin and Mexico.

APHIS has had a longstanding partnership with the cotton industry. APHIS and State and industry cooperators have eradicated boll weevil from more than 99 percent of U.S. cotton acreage, dramatically reducing growers' production and control costs. APHIS' Cotton Pests program directly protects 6.7 million acres of cotton production worth \$1.7 billion in Texas (where the last remaining boll weevil population is present) and indirectly protects 10.2 million acres worth \$6.8 billion nationwide.

As previously mentioned, Texas is the only remaining State with boll weevil populations, which are located in the southern half of the Lower Rio Grande Valley (LRGV). This area is a concern due to tropical storms and high winds that impact it and neighboring areas in the Mexican State of Tamaulipas, along with security concerns related to violence that interrupt trapping and treatment activities. APHIS is working with an International Technical Committee (including U.S. and Mexican representation) to develop strategies to eradicate boll weevil from the LRGV and neighboring Tamaulipas. In addition, the program has eradicated the PBW from California, New Mexico, large areas of Arizona, and the El Paso region of Texas. APHIS develops and distributes sterile insects to reduce PBW populations in the remaining infested areas of Arizona and Mexico. After the boll weevil and PBW are eradicated from an area, cotton growers will experience a 40-100 percent reduction in their overall use of insecticides, thus reducing production costs. The program's efforts have helped cotton farmers become more competitive in the global market, primarily through reducing production costs and increasing yields.

There were no detections of non-sterile PBWs in the cotton producing areas, making the 2013 cotton-growing season the first year without a detection since the eradication program was initiated. If there are no detections of non-sterile PBWs during the 2014 season, the Agency expects to be able to confirm that PBW has been eradicated from Arizona. In FY 2015, APHIS would maintain limited sterile moth production to enable rapid response to any PBW outbreaks. APHIS will continue addressing boll weevil in the LRGV, but does not expect to eradicate the pest until Mexico eradicates the pest on its side of the border. APHIS will continue conducting eradication activities on the U.S. side to prevent pest populations from expanding. APHIS expects that cooperators will increase contributions to conduct these activities at the appropriate level. Once the boll weevil and PBW have been fully eradicated, the program will transition to long-term surveillance to check for re-infestation of U.S. cotton acreage and protection of the investment made in this eradication effort.

Reduction related to progress toward eradicating PBW (-\$3,665,000)

The program will require fewer resources in FY 2015 following eradication of PBW. The program will continue addressing the boll weevil in areas of Texas near the border with Mexico.

Approximately 40 percent of the program's funding covers Federal salaries and benefits, 35 percent supports cooperators' on-the-ground activities, and 15 percent supports the purchase of supplies, such as traps and pink bollworm rearing materials. The remaining funds support operating expenses such as travel, rent, and utilities.

Pay Increase- redirect (+\$55,000)

An increase of \$55,000 for pay costs which includes \$14,000 for annualization of the FY 2014 pay raise and \$41,000 for the anticipated FY 2015 pay raise.

(m) Field Crop and Rangeland Ecosystem Pests program (\$8,826,000 and 58 staff years available in FY 2014).

The Field Crop and Rangeland Ecosystem Pests (FCREP) program protects U.S. agricultural crops and rangelands from the establishment or spread of invasive or economically significant pests. In addition, it facilitates safe international trade and domestic commerce, preserves economic opportunities for U.S. farmers, and fosters healthy ecosystems in rangelands and other areas. APHIS conducts survey and suppression activities in western States to reduce grasshopper and Mormon cricket (GMC) infestations that could cause significant economic losses for livestock producers by requiring them to buy supplemental feed or sell their livestock at reduced prices. In addition, the Agency: develops treatments for land managers to remove imported fire ant (IFA) from their products and prevent re-infestation; conducts regulatory activities to prevent Karnal bunt (KB) and IFA from "hitchhiking" on regulated articles (i.e., nursery stock and farm equipment) to uninfested areas of the United States and foreign countries through trade; and, conducts survey, treatment, and regulatory activities for witchweed infestations in North and South Carolina to protect U.S. corn and sorghum crops. The FCREP program prevents an estimated \$6.3 billion annually in damage to agriculture, industry, and home owners. This program directly protects more than 230,000 acres of wheat and corn worth \$23 million. It indirectly protects all U.S. wheat and corn production worth \$95 billion and covering more than 153 million acres from the spread of KB and witchweed.

Nearly all western U.S. rangeland is located near rural communities where livestock production is vital to the local economy. A 2012 University of Wyoming report entitled "An Economic Analysis of the Comprehensive Uses of Western Rangelands" determined that the value of rangeland forage averages \$10 per acre, and the comprehensive value of rangeland for use as wildlife habitat, stabilizing soils and filtering water, recreation, and other uses is 2-3 times greater. APHIS is implementing new technology—predictive models—in the GMC program to make treatments to protect rangeland for cattle grazing and wildlife more efficient. The models allow for use of early season treatments that use lower rates of insecticides to reduce immature pest populations instead of more expensive and stronger pesticides needed when the pests reach mature stages. APHIS continues to implement improvements for the Grasshopper program identified through an APHIS internal review. These include increasing communication with Federal land managers and cooperators, reviewing contracting officer training needs, and developing an overall program strategic plan. APHIS' GMC program monitors and protects 664 million acres of rangeland each year worth a total of nearly \$8.8 billion. Predictive models suggest that APHIS' IFA program is preventing up to 10 additional States from becoming infested. The program also addresses witchweed, a parasitic plant that can significantly damage corn, sorghum, and sugarcane. If witchweed were to spread throughout the Corn Belt, crop yields for corn and sorghum could decrease by 10 percent and trade in commodities from these areas could be negatively impacted. APHIS will continue conducting surveys and other activities to manage these pests in FY 2015.

Also as part of the FCREP program, APHIS coordinates an annual voluntary survey of the grain delivered to elevators to check for KB across the country and conducts regulatory activities to prevent the spread of the disease from the remaining infested area in Arizona. APHIS is able to issue export certificates that are accepted by countries importing U.S. wheat due to our quarantine and survey efforts. These certificates reassure trading partners about the safety of U.S. wheat exports, retaining export markets, and facilitating wheat movement into international markets. If there was an interruption of the program's ability to certify wheat exports, USDA's Economic Research Service estimated in 2010 that there would be a cumulative

reduction of national net farm income of \$8 billion over the next eight years. If KB funding was eliminated, the disease could enter the grain market system directly impacting almost every State. Many trading partners will not accept U.S. wheat exports unless the commodity is certified to be from areas where KB is not known to occur. Working with cooperators, APHIS has reduced the wheat production areas regulated for KB from four States to just 240,000 acres in Arizona since 1996. In addition, APHIS has significantly increased the efficiency of the KB program by using high-speed optical sorting technology that substantially reduces the number of staff and the time necessary to process samples to allow uninfected wheat to more quickly enter into commerce. This has resulted in a 6-fold increase in sample processing efficiency concomitant with a 50 percent reduction in staffing requirements. APHIS will continue survey and regulatory activities aimed at keeping KB from causing damage in FY 2015.

APHIS cooperates with Federal, State, Tribal, and local agencies, organizations, and institutions to conduct the program's activities. These cooperators are held accountable for meeting their obligations through the terms of cooperative agreements, which include work and financial plans that APHIS and the cooperators develop that specify when accomplishment reports and results must be submitted. APHIS provides national coordination, threat assessment, development of pest control strategies and regulatory requirements, and pest inspections.

Approximately 54 percent of the program's resources support salaries and benefits of APHIS' employees and 30 percent supports cooperators' operations. Another 10 percent goes toward contracts and the purchase of supplies, including those needed for treatments. The remaining resources are for normal operating expenses such as rent, utilities, travel, and equipment.

Pay Increase – redirect (+\$57,000)

An increase of \$57,000 for pay costs which includes \$14,000 for annualization of the FY 2014 pay raise and \$43,000 for the anticipated FY 2015 pay raise.

(n) Pest Detection program (\$27,446,000 and 145 staff years available in FY 2014).

The goal of the Pest Detection Program is to document the distribution of plant pests and diseases of Federal regulatory significance in the United States. This information serves as the basis of APHIS' regulatory efforts and pest management programs that preserve economic opportunities for farmers (i.e., interstate commerce and international trade) and safeguards U.S. agricultural and natural resources. The program uses a multi-pronged strategy that includes: identifying and prioritizing plant pest and disease threats; using scientifically sound pest diagnostics and survey protocols; procuring high quality survey materials (traps, lures, etc.); conducting pest surveys; providing direction and support for survey data management and quality control; posting survey results to the Agency's website to provide a clear distribution of pests and identify pest-free areas on a timely basis; and notifying States of significant pest detections through established protocols. APHIS works with Federal agencies, State departments of agriculture, Tribes, academic institutions, and industry partners to conduct these program activities. APHIS and its State cooperators carry out surveys through the Cooperative Agricultural Pest Survey program.

APHIS provides national coordination for the program and develops policies and procedures for commodity-based and resource-based surveys. These surveys enable APHIS and cooperators to target high-risk hosts and commodities, gather data about pests specific to a commodity, and provide accurate assessments of pest distribution, including pest-free areas. Early pest detection is important to avert economic and environmental damage; once a pest becomes established or spreads significantly, the mitigation costs can reach millions of dollars, in addition to lost farm revenues and damage to ecosystems. Additionally, while many entities are involved in protecting crops and resources, APHIS verifies that U.S. products do not pose risks to other countries. For example, when the pale cyst nematode was first detected in Idaho (through a Pest Detection survey), the program had data demonstrating negative survey results in other potato-producing States that kept export markets open for U.S. potatoes. According to the Global Trade Atlas, the value of the market that remained open was \$186 million in 2012. Without the Pest Detection funding, APHIS would not be able to conduct surveys for high-risk pests or provide funding to

cooperators for these surveys. In FY 2013, the program and its cooperators conducted surveys for 266 individual pests, pathogens, and noxious weeds, exceeding its goal of 200. The program also conducted 132 commodity- and taxon-based surveys, with an average of 6-7 pests per survey (surpassing the goal of 5 per survey).

The Pest Detection program communicates and develops partnerships through cooperative agreements with State departments of agriculture and natural resources, universities, industry partners, tribal and local governments and communities, non-profit organizations, and individuals in all 50 states. These entities have common objectives, and initiate activities to safeguard agriculture and the environment from the introduction of harmful plant pests, and to facilitate safe trade by demonstrating absence of pests of phytosanitary significance. Parties are held accountable through required reporting of activities.

In FY 2015, the program and its cooperators will conduct surveys for a minimum of 200 individual pests, pathogens, and noxious weeds, as well as conduct 133 commodity- and taxon-based surveys, with an average of at least 5 pests per survey. The program expects to conduct surveys for an average of 15 pests in each State.

Approximately 54 percent of the program's funding supports Federal salaries and benefits, 36 percent is for cooperative agreements with States and other partners listed above, and the remaining 10 percent is for other operating expenses such as travel, rent, utilities, and supplies.

Pay Increase – redirect (+\$141,000)

An increase of \$141,000 for pay costs which includes \$35,000 for annualization of the FY 2014 pay raise and \$106,000 for the anticipated FY 2015 pay raise.

- (o) A decrease of \$4,000,000 for the Plant Protection Methods Development program (\$24,549,000 and 141 staff years available in 2014).

The goal of the Plant Protection Methods Development (PPMD) Program is to develop scientifically viable and practical tools for exotic plant pest exclusion, detection, and management. These tools preserve economic opportunities for farmers and industries that engage in interstate commerce and international trade, and safeguard U.S. agricultural and natural resources from invasive plant pests. The program plays an essential role in APHIS' efforts to protect agriculture and natural resources from invasive plant pests and to support trade by developing tools to enable or improve the detection of exotic pests in survey programs; developing molecular diagnostic tests and identification tools for pest identification in support of domestic programs and imports of plants for planting; developing integrated pest management methods, including biological control, to help eradicate or manage invasive pests; conducting pest risk analysis to address phytosanitary requirements for imports, and support for exports of U.S. agricultural products; and developing phytosanitary commodity treatments to support interstate and international trade.

APHIS provides coordination for national pest detection surveys and pest management programs, which depend on accurate and effective tools. The PPMD program develops pest trapping, identification and survey technologies that support these efforts. The program also develops pest management techniques that APHIS national programs use to manage or eradicate invasive pest threats. For example, PPMD staff developed survey and management methods for the European grapevine moth when it was first detected that allowed APHIS and cooperators to reduce populations by more than 99 percent within the first year. The program continues to refine the survey methods to support the eradication effort.

The PPMD Program partners with States, universities, Tribes, other Federal agencies, and international partners to accomplish its goals. Coordination of biological control activities for the emerald ash borer is a good example that involves each of these stakeholder groups. APHIS also is partnering with USDA's Agricultural Research Service, the University of Maryland, and the University of Hawaii to manage and control varroa mites, small hive beetles, and other pests and diseases harmful to honey bee health. APHIS will continue these efforts in FY 2015 by surveying 30 States for honey bee pests and diseases to determine

the extent of the threat as well as what factors assist in supporting honey bee health. APHIS collaborates with stakeholders through participation in scientific review panels, technical working groups, and interagency and cooperative agreements. These partnerships and cooperative agreements allow APHIS to tap into scientific expertise or infrastructure that is not available within the Agency. This is particularly necessary when APHIS needs to quickly access scientific knowledge on a new pest issue to develop exclusion, detection and management techniques.

To hold parties accountable, PPMD works closely with cooperators to communicate goals, develop work plans and establish timelines for the delivery of agreed upon products. The program has consistently met or exceeded its performance measure targets. For example, the program met its 2013 target by developing, implementing or completing technology transfer for 76 biological control projects. The program also met its annual performance target of developing or improving at least five phytosanitary commodity treatments, resulting in an increase in trade and a reduction in methyl bromide fumigations. The PPMD program conducts reviews of each project area with APHIS program managers on at least an annual basis. These reviews are designed to evaluate project progress, ensure the projects are meeting APHIS program needs, and prioritize future work. APHIS will continue to conduct these activities in FY 2015. Without this program, APHIS would not be able to provide the tools needed to carry out plant pest eradication and detection programs. In FY 2015, the program and its cooperators will develop a minimum of five new/improved regulatory treatments for commodities of trade.

Reduction related to the National Clean Plant Network (-\$4,000,000)

The Consolidated Appropriations Act of 2014 made \$4 million in additional funding available for the National Clean Plant Network (NCPN), which provides reliable sources of pathogen-free planting stock of high-value specialty crops such as apples, peaches, almonds, grapes, oranges, lemons, strawberries, raspberries, blueberries, and hops. The Agricultural Act of 2014 (Farm Bill) also provided funding for the NCPN. Because funding for the NCPN will be available on an ongoing basis from the Commodity Credit Corporation via the Agricultural Act of 2014, discretionary funding for the NCPN is not needed in the Plant Protection Methods Development line item.

Approximately 70 percent of the program's funding supports Federal salaries and benefits, and another 14 percent supports contracts and agreements. The program currently partners with institutions in 28 States and territories and one Native American Tribe.

Pay Increase - redirect (+\$137,000)

An increase of \$137,000 for pay costs which includes \$34,000 for annualization of the FY 2014 pay raise and \$103,000 for the anticipated FY 2015 pay raise.

- (p) A decrease of \$14,107,000 and 7 staff years for the Specialty Crop Pests program (\$151,500,000 and 688 staff years available in the FY 2014).

The goal of the Specialty Crop Pests (SCP) Program is to protect U.S. fruits and vegetables, tree nuts, horticulture, and nursery crops from adverse impacts associated with invasive pests, such as crop damage or threats to international trade and interstate commerce. APHIS works in coordination with State, Tribal, university, and industry partners to develop and implement practices, policies, and regulations that prevent or mitigate impacts for invasive pests of Federal regulatory significance. These activities include verifying pest distribution, creating conditions that mitigate risk pathways and prevent long distance spread of the pest, developing and implementing diagnostic tools and pest mitigation strategies, and communicating with the public to gain support for program strategies and modify behaviors that introduce or spread pests. These efforts promote the ability of U.S. farmers and producers to export their products, prevents damage to specialty crop production (helping to ensure the availability of fresh fruits and vegetables), and protects natural resources, including forests and residential landscapes. Specialty crops are grown in all 50 States, and they have a high value; APHIS' Specialty Crop program directly protects production (including citrus, grapes, potatoes, nursery stock, and tree fruit) worth more than \$11 billion annually. APHIS is currently

using SCP resources to address the following pests and diseases: the light brown apple moth (LBAM), European grapevine moth (EGVM), pale cyst nematode (PCN), a variety of citrus diseases, and exotic fruit flies (among others).

While Federal response activities take place in concentrated areas where the infestations occur (e.g., PCN in Idaho or LBAM in California), they also protect all at-risk States producing specialty crops. For example, the SCP program works to address the PCN in Idaho and conduct nationwide surveys for the pest, protecting fresh potato export markets worth \$186 million in FY 2012 (according to the Global Trade Atlas). Without the SCP program, a variety of export markets for U.S. specialty crops would be at risk—the program protects trade worth more than \$7 billion.

The SCP program partners with affected industries, States, Tribes, academic institutions, and other Federal agencies, to deliver domestic programs. Additionally, the program works with its counterparts in foreign countries to address pest risks offshore. For example, the SCP program works with Mexico and Guatemala to mitigate the risk of exotic fruit flies entering the United States. For example, the program has kept the United States free of Mediterranean fruit fly (Medfly) for many years by conducting preventative releases of sterile insects to disrupt normal population growth in at-risk areas; detecting and responding to outbreaks when they occur; and maintaining a barrier against the natural spread of the pest in Mexico and Central America. Medfly has been recorded infesting 300 cultivated and wild fruits. Without the program's efforts, many important crops would become impossible to grow due to fruit fly infestations.

To protect the U.S. citrus, grape, and wine industries, APHIS has partnered with Florida citrus producers to slow the spread of citrus greening and preserve citrus acreage and California grape growers to eradicate EGVM. In both collaborative efforts, APHIS provides funding, expertise, and operational support for surveys and regulatory efforts to find and prevent the spread of the target pests, while industry funds and conducts the necessary control treatments (with technical guidance from APHIS and State officials). APHIS and its State, county, and industry partners have had significant success in eliminating EGVM from California—only 687 square miles remain quarantined out of 85,000. The program aims to eradicate EGVM in FY 2015 and continue surveys for several additional years to confirm that it has been eliminated. Eradicating this pest will dramatically lower growers' production costs and protect or expand export opportunities. Because of the ongoing threat posed by citrus greening and other citrus diseases, APHIS is expanding its partnership with the citrus industry to explore new strategies and opportunities for supporting and preserving U.S. citrus production and markets.

APHIS is taking a new approach by moving away from specific regulatory requirements in cases where industry-based best management practices can minimize pest and disease damage more effectively and efficiently. For example, APHIS worked with the American Nursery and Landscape Association to address the recent appearance of boxwood blight in the United States. Because the disease was already present in the nursery production system when it was detected, APHIS worked with nursery stock producers and State cooperators to develop a systems approach to producing clean stock. This approach allows the nursery industry to minimize damage and disease spread while preserving trade opportunities for this popular and valuable landscaping product.

Reduction to adjust cost-share rates (-\$14,107,000)

APHIS is requesting an overall decrease of \$14.107 million for the SCP program in FY 2015 related to cost-sharing adjustments for three pest and disease programs that will allow for more equitable Federal contributions to the programs. The decrease includes:

- A reduction of \$7.950 million for the Citrus Health Response Program, which would reduce the Federal cost-share rate from 94 percent to 78 percent.
- A reduction of \$2.369 million for the Glassy-winged Sharpshooter Program, which would reduce the Federal cost-share rate from 54 percent to 47 percent.
- A reduction of \$3.788 million for the Light Brown Apple Moth Program, which would reduce the Federal cost-share rate from 100 percent to 60 percent.

Approximately 55 percent of the program's resources support cooperators' on-the-ground operations, such as surveys, regulatory inspections, and outreach to affected growers and the public as well as methods development activities at other USDA agencies. These cooperators are held accountable for meeting their obligations through the terms of cooperative agreements, which include work plans and financial plans developed by APHIS and the cooperating entity that specify when accomplishment reports and results must be submitted. Approximately 30 percent of program funding is for salaries and benefits for oversight, national coordination, threat assessment, development of pest control strategies and regulatory requirements, and on-the-ground inspections and trapping activities for some pests, among other things. The remaining funds support services, supplies, equipment, rent, and other operating expenses.

Pay Increase – redirect (+\$667,000)

An increase of \$667,000 for pay costs which includes \$164,000 for annualization of the FY 2014 pay raise and \$503,000 for the anticipated FY 2015 pay raise.

- (q) A decrease of \$8,608,000 and 4 staff years for the Tree and Wood Pests program (\$54,000,000 and 319 staff years available in 2014).

America's forests are valuable resources that provide jobs and recreation opportunities and create habitat for wildlife. They provide economic opportunities and ecosystem services worth an estimated \$1.2 trillion. APHIS works with various Federal and State agencies, local governments, industry groups, and other partners to protect forests, urban landscapes, private working lands, and other natural resources from harmful pests and diseases. Through the Tree and Wood Pests (TWP) program, APHIS addresses devastating pests such as the Asian longhorned beetle (ALB), emerald ash borer (EAB), and European gypsy moth. Numerous native hardwood tree species that are common throughout U.S. forests and urban landscapes are hosts to these pests. Conserving forests enhances the economic vitality of rural communities by protecting the value of forest-related industries, the tourism and recreational value of lands and their related commercial activities, and the environmental and ecological value of lands. For example, in States such as Ohio, New York, and Massachusetts, ALB threatens the forest-based manufacturing and forest-related tourism and recreation economy, which totals some \$35 billion. When forest pests like EAB kill large numbers of trees in urban and suburban areas, they can cause tremendous, wide-ranging impacts to communities, landscapes, and commerce. Such losses, if unchecked, could cost local governments up to \$1.7 billion in tree damage and removal expenses and another \$830 million in losses to residential property values. In addition, exports of forest products such as logs and timber could be at risk due to trade restrictions put in place by other countries. Nationwide, APHIS programs protect 596 million acres of forested land by preventing the spread of damaging pests. With each acre of forested land valued between \$1,000 and \$2,000, the program protects land/property valued on average at \$21,000 for each dollar it spends.

APHIS cooperates with State and local agencies and organizations in 48 States to conduct various activities to manage and, in some cases, eradicate these pests. These activities include conducting surveys; developing and enforcing regulations, implementing control measures; developing methods and processes to combat pests; and conducting outreach efforts to prevent pest spread. APHIS' role in the TWP program is to oversee the regulatory framework to prevent the human-assisted movement of these pests and to provide national oversight and coordination for program activities to detect and eradicate or manage the pests. APHIS and its cooperators continue to improve program delivery and to create more efficient projects. For example, APHIS and cooperators have modified ALB survey and control protocols, resulting in more efficient use of resources required to eradicate the pest. In addition, the program is examining new detection technologies and evaluating an extended timeframe for the application of preventive treatments to potentially saving funds by treating less frequently to achieve the same results.

APHIS works with a variety of partners in State departments of agriculture and natural resources, other Federal agencies, Tribal representatives, local governments and communities, university scientists, industry groups, and private citizens to protect forests and urban trees. For example, APHIS and the U.S. Forest

Service worked to develop a computer-based survey design tool that State and local agencies can use to implement EAB surveys and provide more accurate representations of established EAB populations. APHIS is also working with USDA's Agricultural Marketing Service (AMS) and the American Firewood Producers and Distributors Association to develop a firewood certification program that will help mitigate the spread of EAB and other forest pests. AMS would manage a third-party certification program, which would allow firewood dealers to demonstrate that their products meet pest mitigation standards, thus facilitating commerce and preventing the spread of damaging insect pests to new areas.

In FY 2015, APHIS will continue addressing ALB outbreaks in Massachusetts, Ohio, and New York; pursuing biological control options as a long-term EAB management strategy; and slowing the spread of gypsy moth through inspections and regulatory activities. By FY 2015, APHIS aims to declare ALB eradicated from Norfolk and Suffolk Counties in and around Boston, Massachusetts.

Reductions related to cost-share rates (-\$8,608,000)

APHIS is requesting an overall decrease of \$8.608 million for the TWP program in FY 2015 related to cost-sharing adjustments for two pest and disease programs that will allow for more equitable Federal contributions to the programs. The decrease includes:

- A reduction of \$6.583 million for the ALB program, which would reduce the Federal cost-share rate from 95 percent to 80 percent.
- A reduction of \$2.025 million for the EAB, which would reduce the Federal cost-share rate from 97 percent to 75 percent.

Approximately 45 percent of TWP funding supports personnel costs, 15 percent is for cooperative agreements, 28 percent supports contracts, and the remaining 12 percent funds other expenses. APHIS typically awards contracts to tree companies for surveys, treatments, and tree removal. Agreements may be made with Federal, State, Tribal, and local government agencies; nongovernmental organizations; and academic and research institutions to conduct survey, management and control activities; develop and oversee outreach efforts; and develop new methods to combat these pests.

Pay Increase- redirect (+\$304,000)

An increase of \$304,000 for pay costs which includes \$75,000 for annualization of the FY 2014 pay raise and \$229,000 for the anticipated FY 2015 pay raise.

Safeguarding and Emergency Preparedness/Response – Wildlife Services

(r) Wildlife Damage Management program (\$87,428,000 and 620 staff years available in FY 2014).

The Wildlife Damage Management (WDM) program resolves human/wildlife conflicts and protects agriculture, human health and safety, personal property, and natural resources from wildlife damage and wildlife-borne diseases in the United States. This program protects agriculture by protecting livestock from predators, managing invasive species such as feral swine and beaver damage, conducting a national rabies management program, and managing wildlife species and diseases.

Livestock losses attributed to predators cost producers more than \$138 million annually, according to the most recent surveys by National Agriculture Statistics Service. Cost-benefit analyses have shown that for each dollar spent on livestock protection, APHIS saves producers between \$2 and \$7 in losses. APHIS prevents and reduces livestock predation through education, technical assistance to producers, and management programs. In FY 2013, APHIS' WDM program helped more than 14,000 producers in the western United States with livestock valued at more than \$2.3 billion. On average, APHIS provides technical and direct management for approximately 27,000 projects each year.

APHIS' natural resource protection includes protecting natural areas and native wildlife from invasive species such as the brown tree snake (BTS), nutria, and feral swine. An article published by the University of Hawaii indicates that the annual projected economic impacts of the potential translocation of the BTS from Guam into Hawaii would range from \$593 million to \$2.4 billion. In FY 2013, APHIS intercepted approximately 18,000 BTS in Guam to prevent movement into Hawaii and the continental United States.

Feral swine have quickly established themselves throughout the nation, increasing from 1 million animals in 17 States to about 5 million animals in 38 States in the last 20 years, making them one of the fastest growing invasive species in the United States. In 2013, APHIS implemented a pilot program specifically designed to strategically removal feral swine from regions in New Mexico. In only a few months, the WDM program removed 640 feral swine over an area expanding more than 4.5 million acres, saving New Mexico property owners approximately half a million dollars in annual damages alone. Nationally, the WDM program removed approximately 31,105 feral swine in 27 States in FY 2013. To date, APHIS has conducted these activities through requests from State and local cooperators. However, this problem warrants a national, strategic approach to feral swine management. In FY 2014, APHIS is implementing a national, cooperative cost-share program to slow -- and eventually stop -- the leading edges of population spread; eliminate swine populations where possible; and control swine numbers to achieve acceptable levels in other States. The Agency will continue these efforts in FY 2015.

Rabies remains a significant wildlife management and public health challenge. Approximately 6,000 to 8,000 rabid animals are reported to the Centers for Disease Control and Prevention annually, with more than 90 percent of cases occurring in wildlife. APHIS is the lead Federal agency for preventing wildlife rabies from spreading to new areas of the United States, while working to eliminate rabies where practical. In FY 2013, APHIS and its cooperators distributed more than 6.8 million oral rabies vaccine baits in 15 States. The cooperative WDM program has eliminated canine rabies in coyotes in south Texas (allowing the United States to gain canine rabies free status in 2007) and has prevented raccoon rabies from spreading beyond the Eastern United States. In addition, no cases of gray fox rabies in Texas have been reported since 2009. The Agency's WDM activities also benefit the American public as a whole by monitoring wildlife across the country for other diseases that help protect animal and human health, and saving wildlife species in emergency response situations.

APHIS' WDM activities benefit private landowners, businesses, and Federal, State, county, and city government offices. They enable farmers and ranchers to remain profitable, feed consumers here and abroad, and contribute to their communities. Without these important WDM services, people might use methods that compromise America's agriculture, human health and safety, personal property, and natural resources.

This program estimates that it will use 62 percent of its funding on personnel costs, 1 percent on contracts and cooperative agreements, and the remaining 37 percent to support normal operating costs such as travel, supplies, rent and utilities.

Pay Increase – redirect (+\$599,000)

An increase of \$599,000 for pay costs which includes \$148,000 for annualization of the FY 2014 pay raise and \$451,000 for the anticipated FY 2015 pay raise.

(s) Wildlife Services Methods Development program (\$18,856,000 and 163 staff years available in 2014).

APHIS provides the only dedicated Federal leadership in managing wildlife problems and developing methods to resolve human-wildlife-agricultural conflicts. The Wildlife Services Methods Development (WSMD) program works with cooperators to conduct research and develop socially responsible methods to prevent and mitigate damage caused by wildlife and invasive species on agricultural productions, and to detect and prevent wildlife diseases that may impact animal health and agricultural biosecurity. This program provides scientific information to support the development and implementation of socially-acceptable methods for managing wildlife damage. These methods enable APHIS, cooperators, and

individuals to protect crops, livestock, natural resources, property, and public health and safety. The WSMD program tests between 14 to 16 new methods each year.

In recent years, APHIS' WSMD program has developed methods to mitigate wildlife-aviation strike hazards, and studied the role of fish-eating birds in the epidemiology of diseases impacting aquaculture and fisheries, and evaluated the use of passive lighting systems to alert birds to oncoming aircraft. Each of these examples has reduced damage to property, agriculture, human health and safety, and/or native wildlife and ecosystems. Additionally, the WSMD program develops data to register products that enables the private sector to further manage human-wildlife conflicts. An example of this type of technology transfer is the registration of a contraceptive to control the white-tail deer population, with the U.S. Environmental Protection Agency and the Food and Drug Administration. Finally, the program explores ways to reduce the spread and transmission of zoonotic diseases; develops disease diagnostic methods; develops strategies to monitor wildlife pathogens; assesses risks to agriculture and human health and safety; and assists APHIS' operational programs with surveillance and monitoring.

These methods are essential to cooperators, and preserve businesses and regional employment opportunities. For example, internal assessments determined that cormorant control activities saved between \$20 and \$50 million in damages and 100 and 300 regional jobs over an eight year period. In North Carolina, the WSMD methods applied to a beaver management program has saved municipalities, counties, and private landowners almost \$9 for every \$1 spent. Without funding available, the WSMD program will not be able to develop and evaluate new tools and strategies to manage wildlife damage, including managing the expanding feral swine population, register safe toxicants, and develop new methods for improving trapping and oral bait delivery systems.

The program estimates that it will use 68 percent of its funding on personnel costs, 7 percent on contracts and cooperative agreements, and the remaining 25 percent to support normal operating expenses such as facility maintenance, supplies, travel, security, and other research related operational costs.

Pay Increase – redirect (+\$158,000)

An increase of \$158,000 for pay costs which includes \$39,000 for annualization of the FY 2014 pay raise and \$119,000 for the anticipated FY 2015 pay raise.

Safeguarding and Emergency Preparedness/Response – Regulatory Services

- (t) Animal and Plant Health Regulatory Enforcement program (\$16,224,000 and 142 staff years available in 2014).

The Animal and Plant Health Regulatory Enforcement (APHRE) program promotes the integrity of APHIS programs by providing effective and efficient investigative and enforcement services. APHIS's four regulatory programs and the Agricultural Quarantine Inspection activities at the Department of Homeland Security Customs and Border Protection are all national programs that require Federal investigative and enforcement support to promote compliance and program integrity and, ultimately, protect American agriculture. The APHRE program centralizes this function into one national program, thereby promoting greater efficiency, effectiveness, and consistency than would not be possible if each program handled these functions independently. The program serves as APHIS's primary liaison with USDA's Office of the Inspector General (OIG) and Office of the General Counsel (OGC), the U.S. Department of Justice (DOJ), and other Federal and State law enforcement organizations.

The APHRE program ensures compliance through comprehensive investigations, sound enforcement actions, and strong educational efforts. The program uses monetary penalties and alternative enforcement actions, including non-monetary settlement agreements, and works with OIG, OGC, and/or DOJ to pursue administrative, civil, or criminal action, as appropriate, in response to alleged violations of APHIS-administered laws. This helps to foster deterrence of those who may attempt to circumvent U.S.

agricultural laws. Program activities serve to deter individuals and companies from engaging in acts that could otherwise cause extensive economic damage and/or tremendous expenses related to eradication or mitigation efforts designed to protect the American agriculture system.

APHIS developed and applies criteria to focus resources on the highest priority cases. In doing so, the Agency is able to expedite the processing time for enforcement actions involving violations that pose the greatest risk to animal and plant health, while expeditiously resolving hundreds of lower priority cases to reduce the overall back log of cases. In FY 2013, APHIS improved the efficiency of its investigative and enforcement services (compared to FY 2012), by reducing its inventory of open investigations by 28 percent (from 766 to 549 open investigations), and reducing the average number of days to complete an investigation and resulting enforcement action by 28 percent (from 643 days to 464 days). By FY 2015, APHIS expects to meet its goal of processing a complete investigation and enforcement action in 365 days, further promoting timely resolution.

Approximately 88 percent of funds will be used for salaries and benefits, 1 percent for information technology management, and 11 percent for normal operating expenses including travel for mission-critical investigative and enforcement activities, supplies, printing, rent and utilities.

Pay Increase – redirect (+\$138,000)

An increase of \$138,000 for pay costs which includes \$34,000 for annualization of the FY 2014 pay raise and \$104,000 for the anticipated FY 2015 pay raise.

(u) Biotechnology Regulatory Services program (\$18,135,000 and 92 staff years available in 2014).

The biotechnology industry—valued worldwide at \$246 billion—continually develops innovative products of modern biotechnology (including genetically engineered (GE), organisms) that can greatly benefit the public. For example, GE crops can increase yields or decrease crop losses due to pests and diseases. However, before any of these products can be brought to market, it is essential to demonstrate—through rigorous, scientific review—that they do not pose a plant pest risk to America’s agricultural and natural resources. APHIS’ Biotechnology Regulatory Services program provides the regulatory controls that ensure new GE crops will not pose plant pest risks when released into the environment. In addition to protecting America’s agriculture, these controls instill confidence in the public and in our trading partners that GE products produced in America are of the highest quality. These activities support USDA’s strategic goal to “Help America promote agricultural production and biotechnology exports as America works to increase food security.”

APHIS regulates the importation, interstate movement, and field release—or “introduction”—of GE organisms that may pose a plant pest risk. As part of its science-based framework, APHIS requires developers to apply for a permit or notification before introducing these organisms into the environment and conducts thorough scientific analyses to evaluate potential plant risks and environmental impacts before authorizing such introductions. Once a developer can demonstrate that a GE crop does not pose a plant pest risk, the developer can petition APHIS to seek nonregulated status. Every day, American farmers and consumers benefit from the role APHIS has played in bringing biotech products to the marketplace. More than 90 percent of the soybean, 90 percent of the corn, and 90 percent of the cotton grown by U.S. farmers were derived from biotechnology and APHIS’ initial review and approval of these GE crop lines was the first key step to them being made available.

In FY 2013, APHIS made six determinations of nonregulated status, bringing the total to 102 petitions consisting of 165 plant lines that, as indicated previously, have been an immense benefit to farmers, producers, and consumers. Agricultural biotechnology gives farmers and producers more tools to address pest and disease issues and contributes to the adoption of no-till and low-till agricultural practices, and helped safeguard crops against disease. APHIS’ reviews and regulatory determinations allow new and innovative GE technologies to enter commerce and the worldwide marketplace, supporting global strategies to meet the need for food security, energy production, carbon offsets, and the economic sustainability of

farms. APHIS expects the number of determinations of nonregulated status to increase from 102 in FY 2013 to 112 in FY 2015.

APHIS is dedicated to improving its review and permitting processes and finding efficiencies and cost savings. In FY 2012, APHIS implemented changes to its petition review process and reduced the review time required from an average of 3 years to about 13 to 16 months (with the exception of petitions for which APHIS is developing an environmental impact statement, or EIS). The changes include establishing specific timelines for each step, using new management and tracking tools, and getting the public involved earlier to identify risks and controversial issues. In FY 2013, APHIS realized significant time savings in the next year for petitions without an EIS. The determinations in FY 2013 for nonregulated status occurred, on average, 12 months faster than the issuance of nonregulated status for petitions from 2009 – 2012. The change to the enhanced process increased efficiency and makes agricultural products more readily available to producers and growers.

In addition to compliance efforts, which include investigations and audits, APHIS also provides education and other outreach to the biotechnology community to ensure understanding of regulatory requirements. In FY 2013, APHIS authorized 2,054 new permits and notifications at 10,698 locations in the United States, and conducted 735 site inspections. Of those sites inspected in FY 2013, 97.7 percent were found to be in compliance; APHIS' goal for upcoming years is for 99 percent of those sites inspected to be in compliance).

APHIS also seeks to enhance its efforts through partnerships with State departments of agriculture. The program partners with the National Plant Board to allow State inspectors to conduct inspections of field release sites. This partnership makes additional staff available for inspections and ensures cost-effective use of resources, as the States often have staff located in the areas where the inspections occur. On April 29, 2013, APHIS published a proposed rule to allow sharing of confidential business information with Tribes and States. This proposed rule could allow for expanded collaboration with Tribes and State partners both in conducting inspections and in reviewing permit and notification applications for potential plant health risks.

During FY 2013, the Agency continued implementation of the Biotechnology Quality Management System (BQMS) program, which is a nonregulatory solution that provides tools to facilitate compliance while raising awareness and compliance of regulatory responsibilities. In FY 2013, APHIS recognized six new entities that had completed the program and successfully implemented a BQMS. There are currently 21 participants in the BQMS program. BQMS participants account for more than 97.7 percent of the acreage of GE field test sites that APHIS oversees.

Overall, approximately 80 percent of the program's funding supports salaries and benefits of personnel, 15 percent funds contracts and agreements, 5 percent funds major IT system costs, and the remaining supports normal operating costs such as travel, supplies, and rent and utilities. Pay Increase – redirect (+\$88,000)

An increase of \$88,000 for pay costs which includes \$22,000 for annualization of the FY 2014 pay raise and \$68,000 for the anticipated FY 2015 pay raise.

Safeguarding and Emergency Preparedness/Response – Emergency Management

(v) Contingency Fund (\$470,000 and 5 staff years available in 2014).

The APHIS Contingency Fund provides the Agency with resources to implement emergency, short term activities that are relatively small in scale and not otherwise supported by the Agency's commodity line items within the appropriation. The Agency can quickly access the resources needed for the control of outbreaks of plant and animal diseases, and for the control of insects, pest animals, and birds to the extent necessary to meet emergency conditions. For example, the Agency was able to initiate activities to

effectively address outbreaks of the European grapevine moth, rabies, contagious equine metritis, giant African land snail and, most recently, feral swine.

APHIS used contingency funding in FY 2013 to continue a partnership with the Florida Department of Agriculture and Consumer Services (FDACS) to carry out extensive surveys and treatments for the giant African land snail. The giant African land snails are one of the world's most damaging types of snails because they can consume at least 500 types of plants, including fruit and vegetable crops. The snails can also cause significant structural damage to buildings by eating plaster and stucco. In FY 2013, APHIS and FDACS treated 605 properties within the quarantined zones and exterminated 134,907 snails. Because of its potential as a pest of nursery stock, APHIS and FDACS have surveyed 1,342 nurseries in the impacted areas. One nursery was positive for the snail and is cooperating with FDACS to ensure that the population is eliminated and not transmitted through nursery stock sales.

In FY 2013, APHIS also used the contingency fund to address feral swine in New Mexico. The feral swine population and expanding range are significantly affecting animal and human health; crops and livestock; rural, suburban, and even urban areas; and, natural resources, causing an estimated \$1.5 billion in damages annually. Of that, more than \$800 million in damages has been to agriculture alone. The population of feral swine in New Mexico has remained relatively low compared to neighboring States. However, without management activity, the feral swine population and associated damage would rise, as it has in other States, requiring a more expansive program in the future if action is delayed further. Since the cooperative feral swine project officially began in January 2013, APHIS and its cooperators have removed 640 feral swine over an area expanding more than 4.5 million acres. Based on a cumulative projection of reproduction rates of one litter per year and an average litter size of six pigs, APHIS projects having prevented the birth of more than 1,700 additional animals. The result is the prevention of additional feral swine populations that could cause damage to the environment, roads, crops, and irrigation systems; compete with native wildlife; spread noxious weeds; and, threaten the health of our livestock, wildlife and pets. Availability of the Contingency Fund allows APHIS to address small-scale emergency situations in a timely manner.

Approximately 11 percent of the program's funding supports salaries and benefits, 70 percent is for contracts and agreements, and the remaining 19 percent is for other operating expenses such as postage, equipment, travel and supplies.

Pay Increase – redirect (+\$15,000)

An increase of \$15,000 for pay costs which includes \$4,000 for annualization of the FY 2014 pay raise and \$11,000 for the anticipated FY 2015 pay raise.

(w) Emergency Preparedness and Response program (\$16,966,000 and 90 staff years available in 2014).

The Emergency Preparedness and Response (EPR) program improves the Agency's capability to prevent, prepare, respond, and recover from animal health emergencies. The emergencies range from small-scale incidents to catastrophic events caused by any type of hazard, including foreign animal diseases or pests and natural or man-made disasters. The program also implements and oversees compliance with the Public Health Security and Bioterrorism Preparedness Response Act of 2002, which authorizes APHIS to regulate agents or toxins deemed a threat to animals, plants, or animal and plant products (known as select agents and toxins). These actions safeguard the health and value of U.S. agriculture.

As leaders in animal health emergency management, the EPR program develops strategies and policies for effective incident management and incident response coordination and maintains an animal health emergency reserve corps of more than 2,800 private veterinarians, animal health technicians, and veterinary students. The program also ensures that APHIS' emergency management policies, strategies, and responses meet the latest national and international standards. To date, the program has developed and made available to State animal health officials and industry partners 28 guidance documents covering all of the major components of an animal health emergency response. These guidance documents support greater national preparedness and enable swift and efficient local responses.

Each year, the EPR program coordinates investigations and disseminates information about suspected outbreaks of foreign animal diseases (FADs) and other animal health emergencies. The program also has participated in more than 40 joint Federal, State and local animal health and all-hazards test exercises designed to improve plans and response capabilities and performs after-action reviews following an exercise or a real incident. These reviews lead to the development of corrective action plans that are then used to update national guidance documents and help States to update their response plans that steadily improve program capability.

The EPR program facilitates planning sessions with all major commodity groups to develop business continuity plans that would ensure the continuous movement of livestock products during an animal health emergency. While APHIS was successful in allowing many of the markets to remain in business during an outbreak of exotic Newcastle disease in 2003, these plans would allow non-infected premises and non-contaminated animal products to move more freely in the event of an outbreak. This would avoid unnecessary economic consequences and animal welfare issues. APHIS is working with State and regional partners to develop continuity plans to allow for a continuous supply of milk from farms not impacted by a FAD.

The program also funds APHIS' coordination of Emergency Support Function #11– Agriculture and Natural Resources under the National Response Framework at the national and regional level. Coordinators work daily with the Federal Emergency Management Agency, other Federal departments and agencies, Tribes, Territories States, and local governments to develop coordinated and integrated response plans in the event of hurricanes, earthquakes, floods, and other disasters impacting agriculture, natural resources, and the care of household pets. In FY 2015, APHIS will participate in planning, training and exercises to strengthen preparedness, continue to support response activities, and will work with recovery entities to effectively transition activities into a long-term strategy for the affected communities.

The EPR program provides national leadership in managing select agents and toxins ensuring a better understanding of security, biosafety and bio-containment concerns and practices by the scientific community. Key practices for managing the select agents and toxins are now uniform across human, animal and plant research laboratories in the United States. The program regulates laboratories that possess, use or transfer select agents and toxins due to the high risk created when entities possess, use or transfer potential agents of bioterrorism. The program balances the statutory requirements to protect human, animal, plant, and animal and plant products with the need to allow research to advance and be productive. Since the program was established in 2002, there have been no intentional breaches of containment.

Overall, approximately 85 percent of the program's funding supports salaries and benefits of personnel, 10 percent funds contracts and agreements, and the remaining supports normal operating costs such as travel, supplies, rent and utilities.

Pay Increase – redirect (+\$89,000)

An increase of \$89,000 for pay costs which includes \$22,000 for annualization of the FY 2014 pay raise and \$67,000 for the anticipated FY 2015 pay raise.

(2) Safe Trade and International Technical Assistance

(a) Agriculture Import/Export program (\$14,099,000 and 92 staff years available in 2014).

APHIS works with other Federal agencies, States, foreign governments, industry, and academia to protect U.S. agriculture while facilitating the safe trade of animals and animal products. APHIS animal health experts ensure that U.S. import requirements safeguard U.S. livestock health and negotiate requirements for the export of U.S. animals and animal products worldwide. These requirements and negotiations are based

on compliance with international standards, sound scientific principles, and fair trading practices for animals and animal products. Moreover, APHIS sets quarantine, testing, and other requirements under which animals and animal products can be imported or exported. These requirements help ensure that global markets can be accessed, expanded, or maintained with little or no risk to U.S. animal production and human health.

APHIS also conducts activities related to the 2008 Farm Bill amendments to the Lacey Act, which prohibit the importation of any plant, with limited exceptions, that are taken or traded in violation of domestic or international laws. The Act requires a declaration for imported shipments of most plants or plant products. APHIS' role is to issue regulations, provide guidance to importers regarding the declaration, perform compliance checks, provide enforcement agencies with declaration information to assist their investigations, and house documents.

Imports

To facilitate imports, APHIS evaluates the animal health status of regions that wish to export animals and/or animal products to the United States. This process minimizes the risk of introducing animal diseases through imports. In FY 2013, APHIS completed several evaluations that were published in the Federal Register. These evaluations involved classifying Hungary, Slovakia, Slovenia, and Estonia as low risk for classical swine fever, and recognizing 25 Member States of the European Union (EU) as free of highly pathogenic avian influenza (HPAI) and Newcastle Disease. In addition, APHIS added six regions of Italy to the list of regions recognized as free of swine vesicular disease. The new classifications further facilitated trade between the U.S. and the other countries. APHIS also addressed import issues related to live animals and animal products arising at the ports, especially with regard to facilitating cattle imports from Mexico. In FY 2013, APHIS issued 9,235 import permit applications for live animals, animal products, organisms and vectors, and select agents. This was roughly the same number of permits issued in FY 2012. In addition, the Agency ensures that import regulations are effective and science-based. In FY 2013, APHIS revised import requirements for ruminant germplasm imported from the EU to mitigate concerns about Schmallenberg Syndrome, an emerging disease found in Europe. The Agency revised import requirements for birds and poultry exported from Australia and Mexico due to reports of HPAI in those countries. In addition, APHIS audited EU veterinary oversight of ruminant germplasm and live swine exported to the United States to ensure that import requirements were being properly implemented overseas.

Exports

APHIS estimated the value of new or maintained export markets for live animals, germplasm, and animal products to be approximately \$2 billion for FY 2012. To open, re-open and maintain U.S. access to worldwide export markets, APHIS negotiates science based conditions with trading partners for various commodities that protect their country while also facilitating trade. In FY 2013, APHIS negotiated, or re-negotiated 74 export protocols for animal products (16 new markets, 19 expanded markets, and 39 retained markets), and 158 export protocols for live animals (33 new markets, 78 expanded markets, and 47 retained markets). Also, in FY 2013, APHIS reopened the market for live cattle to Kazakhstan, opened new markets for cattle to Iraq and Jordan, and swine to the EU. The Agency also opened the market for day-old chicks to the Customs Union (Russia, Kazakhstan, and Belarus). In addition, APHIS eliminated BSE-related restrictions on U.S. exports of beef or other commodities to Bahrain, Mexico, Indonesia, Panama, Peru, Trinidad and Tobago, and Turkey. APHIS reopened poultry exports from several States to Japan, China, Cuba, Ecuador, Hong Kong, Iraq, Kazakhstan, Russia, Singapore and Taiwan. APHIS conducted voluntary inspections of more than 500 U.S. manufacturing facilities to maintain, expand, or open export markets in many countries, including the EU, Australia, Mexico, China and others. APHIS participated in industry stakeholder meetings, provided technical support for World Trade Organization cases, and attended bilateral trade meetings with Mexico, EU, Japan, Brazil, and Taiwan. APHIS also developed 24 information packages and questionnaire responses from various countries to maintain, expand, or open export markets. In addition, APHIS provided information to the World Organization for Animal Health

which resulted in the recognition of the United States as a country having negligible risk for bovine spongiform encephalopathy.

APHIS has launched a new application for electronically issuing export health certificates, which currently allows for certificates to be issued for 9 commodities to 2 countries. The Agency is expanding the capabilities of the system and the numbers of certificates issued by this system, which has received extremely positive feedback from industry stakeholders.

Lacey Act

APHIS is continuing to assemble a dedicated staff, evaluate options for storing paper declarations, provide outreach to industries and importers, and develop a web-based system for collecting declarations. Currently, importers submit declarations either by mailing paper forms to APHIS or electronically through a licensed customs broker and a database operated by the U.S. Customs and Border Protection (CBP) agency. Approximately 10 percent of the declarations are submitted on paper forms that require significant resources to analyze and store securely. The web-based system that APHIS is developing will provide an easier, more efficient alternative for filing declarations and allow the Agency to analyze and monitor a larger portion of the declarations for compliance. APHIS will use the increase received in FY 2014 to support this system. The program plans to test the system before full implementation, which is scheduled for 2014. APHIS will also use the funds to continue expanding outreach to importers on how to comply with the Lacey Act and strengthen its analysis of the declaration information for compliance with the Act as well as program improvements to better serve stakeholders. APHIS is also working with CBP to further streamline the process for filing declarations in CBP's database. In addition, APHIS has two initiatives underway to save importers time and potentially money in filing Lacey Act declarations: implementing Special Use Designations (SUDs) and proposing a rule to develop de minimis exemptions. SUDs are short-hand designations for some commodities that can be used in place of listing potentially dozens of plant species contained in the product to help importers expedite their reporting, and the de minimis exemptions would eliminate the need to declare products comprised of minimal plant material, with the exception of plants under protected status (such as those covered by the Convention on International Trade in Endangered Species of Fauna and Flora). On July 9, 2013, APHIS published an interim final rule to establish definitions for "common cultivar" and "common food crop," which are excluded from the Act. The definitions in this rule are designed to exclude most commercially grown food and fiber items from the Lacey Act requirements. Most of the provisions of the interim rule became effective on August 8, 2013, and are allowing importers of these items to bring in commodities without having to file a Lacey Act declaration. The next step for two provisions (defining the terms "tree" and "commercial scale") will be decided after all public comments have been considered.

Overall, approximately 85 percent of the program's funding supports salaries and benefits of personnel and 1 percent funds contracts and agreements. The remaining supports normal operating costs such as travel, supplies, rent and utilities.

Pay Increase- redirect (+\$90,000)

An increase of \$90,000 for pay costs which includes \$22,000 for annualization of the FY 2014 pay raise and \$68,000 for the anticipated FY 2015 pay raise.

(b) Overseas Technical and Trade Operations program (\$20,114,000 and 76 staff years available in the 2014).

Through the Overseas Technical and Trade Operations (OTTO) program, APHIS uses its technical expertise in animal and plant health to resolve sanitary and phytosanitary (SPS) issues that affect export opportunities for U.S. producers, allowing U.S. companies to be competitive in international trade and ensuring the fast and safe movement of agricultural exports. Specifically, the program opens, expands, and retains foreign markets for U.S. agriculture; monitors trading partners' SPS import conditions for U.S. agricultural products; ensures the smooth and safe movement of agricultural commodities to and from the United States; resolves technical issues affecting shipments of U.S. exports at foreign ports of entry by

placing technical experts overseas; and, monitors emerging pest and disease situations to prevent the introduction of exotic animals, plant pests, and diseases to the United States, among other responsibilities. APHIS' employees – including headquarters personnel, field staff, and personnel stationed in 30 countries – play a critical role in the success of these efforts. All together, these actions directly protect U.S. agriculture, expand international markets for U.S. exporters, and help generate more than 1 million jobs around the country. In FY 2013, APHIS successfully intervened in 280 releases of U.S. cargo held up at foreign ports-of-entry, which prevented the rejection of shipments worth more than \$34.8 million. In FY 2013, APHIS also successfully negotiated and resolved 200 SPS trade-related issues involving U.S. agricultural exports, with an estimated market value of \$2.9 billion.

Working with other Federal partners, such as the U.S. Trade Representative's Office and USDA's Foreign Agricultural Service, APHIS also provides the technical expertise needed to successfully address the animal and plant health regulatory issues associated with free trade agreement negotiations. APHIS places a priority on its support of ongoing negotiations for the Trans-Pacific Partnership (TPP) and the Trans-Atlantic Trade and Investment Partnership (TTIP). The TPP includes 11 Pacific Rim countries, including the United States, and has the potential to expand U.S. producers' export opportunities significantly. TTIP involves a proposed free-trade agreement with the European Union, and formal negotiations began in July 2013 and will likely involve a multiyear negotiating process before a final agreement is reached. To date, bilateral side meetings at TPP negotiating rounds have provided necessary impetus to secure: (1) New access for peaches and nectarines to Australia, (2) Expanded table grape access to the State of Western Australia and (3) Removal of Vietnam's import suspension on animal-origin offals. Negotiations to finalize the TPP agreement are proceeding. The TPP SPS Chapter text is largely finalized, however, the parties have not yet agreed if the SPS Chapter will be subject to formal TPP dispute settlement. The SPS negotiating group will next meet in Singapore during FY 2014. APHIS provides technical support in addressing bilateral SPS issues with TPP and TTIP partners. For TPP, APHIS has provided guidance to the U.S. government negotiating team regarding criteria for animal and plant health components of the text of the agreement's SPS chapter. APHIS' participation in the negotiation helps ensure that the SPS framework incorporated into the agreement is compatible with U.S. animal and plant health policies while promoting the export interests of U.S. agricultural producers. APHIS plays a similar role in negotiations under the TTIP with the European Union. Once implemented, the TTIP will be the largest and most economically significant trade agreement. Because of the intense focus on harmonizing regulations in an effort to enhance trade - including those related to plants, animals, and their products - APHIS has an active role in TTIP negotiations.

Through the OTTO program, APHIS also conducts capacity building activities to reduce risks to U.S. agriculture by helping developing countries strengthen their agricultural health and risk detection systems. These activities reduce risks to U.S. agriculture and trade by assisting developing countries in addressing pest and disease threats within their borders. APHIS encourages developing countries to use the same science-based, international standards that the Agency uses to evaluate import requests, increasing their capacity to engage in safe agricultural trade and potentially allow more U.S. imports. During FY 2013, APHIS acted upon 1,383 requests for technical assistance. APHIS' major capacity building activities included six training courses in animal and plant health for international participants. The courses included training in risk analysis for both animal and plant health, creating a model plant health system, and laboratory networks and diagnostics. In addition to U.S.-based courses, APHIS provided subject matter expertise for overseas programs that established and strengthened relationships with foreign veterinary services in Haiti, Peru, Kenya, and Mexico for example, for the detection and confirmation of diseases such as classical swine fever, porcine teschovirus, or bovine spongiform encephalopathy. APHIS also supports projects related to plant health and biotechnology activities, with continued focus on the Caribbean, Central America, and support for Free Trade Agreement partners. APHIS partners with and leverages resources with a number of collaborators including the State Department, Department of Defense, and the U.S. Agency for International Development to conduct these capacity building programs.

Agricultural trade is a bright spot for the U.S. export market but is subject to costly disruptions from animal and plant health barriers. APHIS' technical trade and capacity building activities support food security and export opportunities to U.S. producers. The activities also provide safe, nutritious products like fruits,

vegetables, and animal protein sources to international markets. APHIS is monitoring shifts in global trade trends and is aligning overseas officials to critical areas. Without this program, APHIS' ability to efficiently and effectively respond to SPS issues, work with foreign counterparts and international organizations to protect the United States from foreign plant and animal pests and diseases, and support U.S. producers' exports would decrease. With continued resources, APHIS expects to retain, expand, and open markets worth at least \$1.9 billion for U.S. agricultural products in FY 2015 and facilitate the release of at least 210 shipments.

Approximately 70 percent of the program's funding supports salaries and benefits of personnel, 15 percent represents contributions toward an agreement for the mandatory cost share with the Department of State for International Cooperative Administrative Support Services, and 15 percent is for other operating expenses including rent, utilities, and equipment.

Pay Increase – redirect (+\$74,000)

An increase of \$74,000 for pay costs which includes \$18,000 for annualization of the FY 2014 pay raise and \$56,000 for the anticipated FY 2015 pay raise.

(3) Animal Welfare

(a) Animal Welfare program (\$28,010,000 and 218 staff years available in 2014).

APHIS' Animal Welfare (AW) program has the unique Federal role of ensuring the humane care and treatment of animals covered by the Animal Welfare Act (AWA) through inspection, education, compliance, and enforcement efforts. Through its on-site inspections, educational efforts and enforcement actions, the AW program ensures facilities licensed and registered by the USDA are adhering to the Federal animal welfare standards. APHIS also re-inspects problem facilities, educates regulated entities, provides detailed training for inspectors, investigates complaints, and pursues civil penalties and other enforcement measures when necessary.

As part of its regulatory function, the program oversees more than 7,400 licensees and registrants, associated with more than 15,000 facilities, to assure these animals are being provided adequate humane care and treatment provided for in the regulations. Licensed entities are subject to unannounced inspections to monitor compliance with the regulations over time. In FY 2013, the program either conducted, or attempted to conduct, more than 9,000 random-based inspections to entities located across the United States, many of them located in rural areas.

APHIS assists new facilities with gaining the knowledge and skills necessary to operate in compliance with the AWA. Specifically, APHIS' pre-licensing program works with prospective dog dealer licensees to ensure they fully understand the AWA's requirements before obtaining a license, which reduces overall noncompliance over time. Beginning in FY 2014, the Agency will implement a mechanism to track the compliance of facilities within a year of receiving their license or registration. Additionally, beginning in FY 2014, APHIS will implement a new compliance initiative that seeks not only to bolster regulatory understanding with new applicants, but also seeks to increase the compliance rates of those licensed facilities that have had difficulty adhering to the regulations.

In the past five years, APHIS has seen an average compliance rate of 95 percent. In addressing the five percent not in substantial compliance, APHIS' Risk Based Inspection System identifies those entities that pose the highest risk of not providing humane care and treatment to the animals. The Agency flags high risk entities and conducts re-inspections for repeat noncompliance within 90 days to assess the welfare of the affected animals. APHIS exercises immediate deterrent options, such as letters of warning and the publication of such letters on the internet. The Agency issues between 400 and 600 letters of warning for regulated entities annually. In responding to serious noncompliance, APHIS uses enforcement procedures

that range from civil penalties, the issuance of "cease and desist" orders, the confiscation of animals, or license suspension and revocation.

The partnerships and collaborations built through APHIS' Center for Animal Welfare are essential in balancing the current and future workload. Working with State Departments of Agriculture, universities, industry groups, animal advocacy organizations and noted experts from throughout the world, the Center conducts educational workshops, scientific seminars, and listening sessions to convey current, critical information regarding animal welfare. Because of the collaboration and the advances being made at the Center, APHIS has been able to reduce inspection frequencies (within legal requirements) for facilities that have implemented and documented strong animal welfare programs. The Agency can remain focused on addressing the egregious violators of the Animal Welfare Act – who comprise two to five percent of all licensees/registrants.

The welfare of animals nationwide is subject to significant media attention and passionate public engagement. The American public holds APHIS accountable for ensuring all regulated animals are healthy and treated humanely. Should the AW program not be funded, the Agency will no longer be able to enforce the AWA, and the health and safety of more than two million animals would be severely compromised.

Overall, approximately 90 percent of the program's funding supports salaries and benefits of personnel, one percent of funds are spent on contracts and agreements, and less than one percent on IT system costs. The remaining funds are used to support normal operating costs such as travel, supplies, rent and utilities.

Pay Increase – redirect (+\$212,000)

An increase of \$212,000 for pay costs which includes \$52,000 for annualization of the FY 2014 pay raise and \$160,000 for the anticipated FY 2015 pay raise.

(b) Horse Protection program (\$697,000 and 6 staff years available in 2014).

APHIS' Horse Protection program strives to eliminate the cruel and inhumane practice of soring, which is a technique used to irritate a horse's forelegs through the injection or application of chemicals or mechanical irritants. Soring changes the gait of a horse so that the animal steps higher, thereby allowing its rider to gain a competitive edge and improve his/her chances of winning at horse events. The Horse Protection Act (HPA) is the law that prohibits sored horses from being shown, exhibited, sold or auctioned. The HPA ensures that responsible horse owners and trainers will not face unfair competition from those who sore their horses and that the horses will not be subjected to the abusive practice of soring.

Horse show sponsors and/or show management have statutory responsibility under the HPA to prevent unfair competition and must identify and disqualify sored horses. The Horse Protection program works collaboratively with the twelve current Horse Industry Organizations to train and license Designated Qualified Persons (DQPs) used to inspect horses for soring at all events covered by the HPA.

The Horse Protection program employs its own inspectors to conduct unannounced inspections at horse shows/exhibitions/sales/auctions, as well as evaluates the effectiveness of the DQPs. Increased oversight at shows, combined with the increased use of technology that assists in confirming substances used to sore the horses, has had a positive impact on compliance. In FY 2015, APHIS expects to see a further reduction in the soring of horses protected by the HPA from the progress achieved in FY 2013. The decline in soring is correlated with increased oversight by APHIS inspectors.

About 2.6 million Americans are involved in the horse industry as service providers, employees, and volunteers. According to a 2005 study conducted for the American Horse Council, the direct economic value of the horse show industry is \$10.8 billion. APHIS's Horse Protection program serves as the sole Federal entity to uphold the HPA. Without continued funding, the abuse of horses would increase, impacting more than two million horses at 600 events around the country.

Overall, approximately 39 percent of the program's funding supports salaries and benefits of personnel, 33 percent of funds is for travel, 25 percent of funds is for contracts and agreements for sampling and testing of foreign substances used in soring. The remaining funding supports necessary equipment for completing programmatic functions.

Pay Increase – redirect (+\$8,000)

An increase of \$8,000 for pay costs which includes \$2,000 for annualization of the FY 2014 pay raise and \$6,000 for the anticipated FY 2015 pay raise.

(4) An increase of \$42,567,000 for Agency-Wide Programs

(a) APHIS Information Technology Infrastructure program (\$4,251,000 available in 2014).

The APHIS Information Technology Infrastructure (AITI) program provides funding for the hardware, software (including licensing and supports costs) and telecommunications infrastructure that gives Agency employees office automation tools, Internet access and access to mission-critical programs and administrative applications. The funding for this program supports the stable and secure information infrastructure for those mission-critical applications and the day-to-day business of APHIS. The AITI objectives and priorities are to continually improve sharing of information across the Agency; improve coordination and accessibility of information, processes, and resources available to enable APHIS employees to provide day-to-day services and support programs in emergencies; and, improve APHIS' cyber-security.

APHIS works with USDA's Office of the Chief Information Officer to support the program goals and manage information technology in a manner consistent with both USDA and Federal requirements. APHIS also works with other Federal partners, including the Department of Homeland Security's Customs and Border Protection and the Department of Health and Human Services' Centers for Disease Control and Prevention to ensure that AITI provides interoperability and required availability for partner agencies as needed for program delivery.

APHIS reviews system security patching rates for the APHIS Enterprise Infrastructure workstations and servers to determine the percentage of systems kept current with the latest security patches. In FY 2013, AITI achieved timely renewal of the security level accreditation and upgraded APHIS firewalls to allow for more functionality without sacrificing high levels of security. Systems not updated with current security patches make the Agency vulnerable to IT security threats. Furthermore, APHIS monitors the security controls associated with its IT infrastructure through a process called Certification and Accreditation. Without continued dedicated funding, many of these services would need to be provided at the expense of other programs and activities. Additionally, in FY 2013, AITI completed the Assessment and Authorization for the Enterprise Infrastructure. This project authorized the risk management for the core computing resources for all APHIS employees and cooperators.

While security is important to APHIS, accessibility to information technology tools is vital to the operations of the Agency. In FY 2013, AITI maintained its 99.97 percent availability for its key computing systems as well as a 20.6 minute service-desk response time for the occasions that personnel experience difficulties accessing computing systems.

AITI expenditures fund day-to-day operations for the Agency's IT infrastructure, with more than 75 percent of expenditures used to fund software licenses renewals and support. The remaining supports normal operating costs such as data center supplies and equipment.

(b) Physical and Operational Security program (\$5,146,000 available in 2014).

APHIS oversees and implements precautionary measures to ensure continued, efficient mission operations, and protection from disruption, degradation, or destruction of its facilities through the Physical and Operational Security (POS) program. These measures are essential for a safe and secure work environment. In addition, this program supports APHIS' contribution to the U.S. Department of State's continuing implementation of the Capital Security Cost Sharing (CSCS) program, which provides safe and secure workplaces for all U.S. government employees located overseas.

The POS program provides year-round security measures, such as physical security upgrades, alarms, badging and identification systems, guard services, security assessments, safety and risk assessments, workplace violence training and investigations of both internal and external threats (those potentially made by employees and those coming from an external source). These measures protect employees, visitors, and stakeholders from violence and acts of terrorism. For example, the program ensures that work at laboratories with sensitive material can continue without interruption from negative outside influences or threats. The program also provides protection (through a nationwide contract with a firm that employs off-duty senior law enforcement officials) for employees attending events as part of their official responsibilities, such as those attending horse shows to enforce the Horse Protection Act (HPA). In FY 2013, the program's personnel investigated 156 workplace violence allegations and 27 external threats to APHIS employees, and upgraded 20 Agency facilities with controlled access to use Federal Smart Cards for building access. Additionally, APHIS security specialists consistently investigate threats, and respond to requests for protection throughout the country for APHIS veterinarians who enforce Animal Welfare Act (AWA) and the HPA at horse shows. The program provided security for APHIS employees enforcing HPA regulations during 5 inspections related to the AWA, and at horse shows in 13 States. APHIS also worked with the Department of State to provide increased physical security measures to APHIS employees in Mexico, including improved communications and tracking technology.

APHIS works with other USDA agencies, and with Federal partners such as the Department of Justice, the Department of Homeland Security, the Department of State, and local law enforcement agencies, to ensure that the appropriate organization takes the lead, shares costs, and integrates security where co-location of employees exist. Without continued funding for a physically secure environment, the efficiency and effectiveness of all APHIS programs would be compromised. The costs associated with providing the services would need to be absorbed by each of the programs. In FY 2015, the POS program will continue to enhance security at APHIS' international facilities and provide protection for employees attending events such as horse shows.

In addition, the Department of State continues to implement the CSCS program, which is part of a \$17.5 billion effort over a 19-year period to construct 150 New Embassy Compounds (NECs). Since APHIS maintains a presence overseas to facilitate trade and monitor pest and disease threats, the Department of State requires APHIS to help fund the construction of the NECs based on the number of authorized APHIS positions. The cost-sharing program requires each participating Agency provide funding for several years in advance of actual occupancy for its share of the costs for new, safe, and secure diplomatic facilities on the basis of the total overseas presence of each Agency. The NECs house APHIS employees in more than 30 countries around the world.

APHIS operates the POS program in accordance with Homeland Security Presidential Directive (HSPD) 8 – National Preparedness, which strengthens the preparedness of the United States to prevent and respond to threatened or actual domestic terrorist attacks, major disasters, and other emergencies; HSPD 9 – Defense of United States Agriculture and Food, which establishes a national policy to defend the agriculture and food system against terrorist attacks, major disasters and other emergencies; HSPD 12 – Policy for a Common Identification Standard for Federal Employees and Contractors, which establishes a mandatory government-wide standard for secure and reliable forms of identification issued by the Federal government to its employees; and, the Secure Embassy Construction and Counterterrorism Act of 1999, which authorizes the Secretary of State to provide new, safe, secure U.S. diplomatic facilities.

Approximately 5 percent of the funding supports salaries and benefits of APHIS personnel, and 90 percent is for contracts and agreements, including but not limited to security equipment and installations, guard services, protection operations, and mandatory cost share with the Department of State for the CSCS program. The remaining 5 percent is for other operating expenses such as travel and supplies.

- (c) An increase of \$42,567,000 to fund Decentralized General Services Administration (GSA) Rental and Department of Homeland Security (DHS) Security Payments

USDA proposes in FY 2015 the decentralization of GSA Rental Payments and DHS payments. The amount is the equivalent share of the current GSA Rent and DHS central appropriations based upon current space occupancy across the continental United States. The appropriations request for the central GSA rent account and the DHS payment account has been reduced accordingly.

ANIMAL AND PLANT HEALTH INSPECTION SERVICE

Summary of Proposed Legislation

Program: Animal Welfare

Proposal: Establish A New User Fee

Rationale: Under the Animal Welfare Act (AWA), APHIS carries out activities designed to ensure the humane care and treatment of animals covered under the Act. These activities include licensing and inspection of certain establishments that handle animals intended for biomedical research, sold as pets, transported in commerce, or used for exhibition purposes. Regulated entities already pay minimal fees for licenses, but they do not cover the full cost of the activity or the cost of the inspections.

Goal: A mandatory user fee would allow fees collected from regulated entities to be used to finance activities related to the review and maintenance of licenses and registrations, and inspections conducted under the Act.

Offsets: The user fee would offset a portion of the appropriation for the Animal Welfare Act program in future years.

Budget Impact: (\$ in thousands)

	2014	2015	2016	2017	2018
Discretionary Budget Authority	0	\$9,000	\$12,261	\$12,635	\$13,027
Discretionary Outlays	0	8,550	12,098	12,166	12,844

Program: Biotechnology Regulatory Services

Proposal: Establish A New User Fee

Rationale: Under the authority of the Plant Protection Act, APHIS regulates the introduction—meaning the importation, interstate movement, and field-testing—of organisms derived through biotechnology that may pose a plant pest risk. APHIS assesses the agricultural and environmental safety of organisms derived through biotechnology and evaluates petitions for the Agency to cease to regulate such organisms according to 7 CFR Part 340. Additionally, APHIS operates a compliance and inspection program to ensure compliance with its regulations governing organisms and products derived through biotechnology.

Goal: A user fee that would enable APHIS to maintain improved biotechnology reviews in the face of an increasing workload. APHIS would like to develop legislation using, as a guide, the authorities provided to other regulatory agencies.

Offsets: The user fee would supplement current appropriations for the BRS program. There is no offset with this proposed legislation.

Budget Impact: (\$ in thousands)

	2014	2015	2016	2017	2018
Discretionary Budget Authority	0	\$3,750	\$5,109	\$5,265	\$5,428
Discretionary Outlays	0	3,563	5,041	5,069	5,352

Program: Veterinary Biologics

Proposal: Establish A New User Fee

Rationale: Under the authority of the Virus-Serum-Toxin Act, APHIS regulates veterinary biologics (vaccines, bacterins, antisera, diagnostic kits, and other products of biological origin) to ensure that those products produced in or imported into the United States are not “worthless, contaminated, dangerous, or harmful.” APHIS reviews license applications for production facilities and biological products and operates a compliance and inspection program to ensure that its regulations governing veterinary biologics are met.

Goal: APHIS seeks to ensure that veterinary biologic manufacturers remain in compliance with all laws, regulations, and policies. APHIS’ licensing activities allow manufacturers to market their products. The user fee would recover a portion of the costs of APHIS’ activities from the beneficiaries.

Offsets: The user fee would offset a portion of future appropriations for the Veterinary Biologics program.

Budget Impact: (\$ in thousands)

	2014	2015	2016	2017	2018
Discretionary Budget Authority	0	\$6,750	\$9,196	\$9,476	\$9,770
Discretionary Outlays	0	6,413	8,736	9,003	9,282

ANIMAL AND PLANT HEALTH INSPECTION SERVICE

Salaries and Expenses

Geographic Breakdown of Obligations and Staff Years (SYs)
(Dollars in thousands)

State/Territory	<u>2012 Actual</u>		<u>2013 Actual</u>		<u>2014 Estimate</u>		<u>2015 Estimate</u>	
	Amount	SYs	Amount	SYs	Amount	SYs	Amount	SYs
<u>UNITED STATES:</u>								
Alabama.....	\$3,628	23	\$3,442	21	\$4,152	25	\$4,276	25
Alaska.....	1,065	1	479	1	543	1	557	1
Arizona.....	23,487	83	10,056	74	18,300	81	19,053	81
Arkansas.....	3,969	26	3,453	20	4,276	24	4,402	24
California.....	96,790	138	71,540	114	90,662	131	96,819	127
Colorado.....	49,507	344	48,711	301	57,978	309	59,669	306
Connecticut.....	1,553	6	1,226	6	1,563	8	1,608	8
Delaware.....	725	2	966	2	623	2	640	2
Florida.....	45,271	266	41,396	238	55,260	247	62,032	242
Georgia.....	5,060	35	4,480	32	4,119	32	4,249	32
Hawaii.....	25,475	287	20,701	266	21,923	268	22,714	268
Idaho.....	10,674	87	8,749	86	13,079	95	13,485	95
Illinois.....	5,505	40	3,555	27	5,955	31	6,128	31
Indiana.....	4,721	32	3,495	22	5,467	27	5,624	27
Iowa.....	60,451	348	63,191	361	59,913	361	61,702	361
Kansas.....	3,649	29	3,000	23	3,699	25	3,812	25
Kentucky.....	4,751	33	4,683	33	5,023	36	5,179	36
Louisiana.....	3,276	30	2,662	21	3,027	23	3,122	23
Maine.....	1,290	9	1,284	8	1,147	8	1,182	8
Maryland.....	200,823	964	176,206	998	170,323	1,038	170,819	1,029
Massachusetts.....	21,904	122	21,684	120	22,290	120	22,942	120
Michigan.....	8,680	66	7,233	57	10,371	62	10,680	62
Minnesota.....	16,575	161	18,237	166	17,967	166	18,561	163
Mississippi.....	6,702	45	5,855	38	7,251	40	7,463	40
Missouri.....	9,824	47	6,804	51	5,303	51	5,481	51
Montana.....	4,978	36	5,759	41	4,526	41	4,675	41
Nebraska.....	4,144	25	3,714	25	3,231	25	3,333	25
Nevada.....	2,237	18	2,047	17	2,368	18	2,443	18
New Hampshire.....	13,364	16	13,222	18	13,580	18	13,921	18
New Jersey.....	5,722	32	4,222	22	5,693	24	5,853	24
New Mexico.....	5,313	40	4,531	35	6,319	40	6,510	40
New York.....	29,856	152	19,747	144	24,426	132	26,140	132
North Carolina.....	33,248	132	34,209	164	28,956	164	30,810	160
North Dakota.....	3,975	30	3,523	26	3,358	26	3,465	26
Ohio.....	22,027	54	6,536	51	11,340	55	11,665	55
Oklahoma.....	4,418	31	3,873	26	4,319	27	4,449	27
Oregon.....	5,834	26	4,975	23	6,325	25	6,501	25
Pennsylvania.....	6,642	44	6,468	42	7,160	43	7,373	43
Rhode Island.....	465	1	438	1	463	1	475	1
South Carolina.....	2,821	21	2,814	16	2,918	16	3,004	16
South Dakota.....	2,454	16	2,073	16	2,307	16	2,378	16
Tennessee.....	6,700	31	4,593	32	5,785	36	5,959	36
Texas.....	44,366	329	43,159	345	53,003	363	56,141	360
Utah.....	5,350	37	5,884	44	5,167	44	5,334	44
Vermont.....	1,066	8	1,037	7	1,067	7	1,100	7
Virginia.....	4,209	23	3,913	23	4,536	26	4,670	26
Washington.....	7,270	34	5,376	26	7,610	31	7,823	31
West Virginia.....	2,715	19	2,183	14	2,977	15	3,063	15
Wisconsin.....	5,337	30	4,727	27	6,371	34	6,557	34
Wyoming.....	4,184	30	3,867	30	4,005	33	4,133	33

State/Territory	<u>2012 Actual</u>		<u>2013 Actual</u>		<u>2014 Estimate</u>		<u>2015 Estimate</u>	
	Amount	SYs	Amount	SYs	Amount	SYs	Amount	SYs
U.S. TERRITORIES:								
District of Columbia.....	13,390	88	21,324	106	13,947	106	14,050	104
Guam.....	159	1	730	-	163	-	162	-
Puerto Rico.....	9,182	110	7,687	108	9,560	114	9,672	114
Virgin Islands.....	78	1	32	-	80	-	80	-
INTERNATIONAL REGIONS								
AFRICA:								
South Africa.....	482	1	499	1	491	1	492	1
Senegal.....	559	1	414	1	569	1	570	1
Other.....	310	-	423	-	314	-	314	-
ASIA/PACIFIC:								
China.....	1,274	3	1,281	3	1,299	3	1,302	3
Japan.....	968	1	888	1	984	1	985	1
South Korea.....	422	1	409	1	430	1	431	1
Other.....	1,969	2	1,459	2	2,002	4	2,006	4
CARIBBEAN:								
Dominican Republic.....	488	-	408	-	495	-	495	-
Other.....	323	-	9	-	328	-	328	-
CENTRAL AMERICA:								
Guatemala.....	26,652	4	21,394	5	27,046	6	27,052	6
Nicaragua.....	258	-	-	-	262	-	262	-
Panama.....	15,177	6	16,286	9	15,413	9	15,422	9
Other.....	951	1	939	1	967	1	968	1
EUROPE/NEAR EAST:								
Austria.....	692	1	208	-	703	-	703	-
Belgium.....	1,413	2	1,521	2	1,438	2	1,440	2
Other.....	1,175	2	934	2	1,197	2	1,199	2
NORTH AMERICA:								
Canada.....	354	1	221	-	360	-	360	-
Mexico.....	6,462	4	6,385	4	6,688	4	6,692	4
SOUTH AMERICA:								
Brazil.....	880	2	598	2	898	3	901	3
Chile.....	543	1	574	1	553	1	554	1
Other.....	2,781	1	2,254	1	2,824	2	2,826	2
Total direct obligations:	\$930,992	4,673	\$812,854	4,551	\$897,035	4,732	\$929,240	4,699

Note: Total direct obligations; does not include advances and reimbursements or Agricultural Quarantine Inspection User Fees.

ANIMAL AND PLANT HEALTH INSPECTION SERVICE

Salaries and Expenses

Classification by Objects

(Dollars in thousands)

		2012	2013	2014	2015
		<u>Actual</u>	<u>Actual</u>	<u>Estimate</u>	<u>Estimate</u>
Personnel Compensation:					
	Washington, DC.....	\$85,100	\$79,233	\$87,955	\$88,839
	Field.....	255,301	237,698	263,865	266,518
11	Total personnel compensation.....	340,401	316,931	351,820	355,357
12	Personnel benefits.....	104,600	98,780	108,080	109,167
13	Benefits for former personnel.....	4,599	1,376	2,090	2,111
	Total, pers. comp. & benefits.....	449,600	417,087	461,990	466,635
Other Objects:					
21	Travel & transportation of personnel.....	20,216	15,812	22,356	21,356
22	Transportation of things.....	1,342	863	1,460	1,460
23	Rent, Communications, and Utilities.....	22,677	23,287	22,735	64,243
24	Printing and reproduction.....	422	669	523	523
25.0	Other Services.....	22,246	24,484	23,609	25,668
25.1	Contractual Services Performed by Other				
	Federal Agencies.....	50,590	51,931	45,054	44,554
25.2	Related Expenditures.....	2,910	2,633	2,736	2,736
25.3	Repair, Alteration or Maintenance of				
	Equipment, Furniture or Structure.....	6,456	5,366	6,069	6,069
25.4	Contractual Services - Other.....	26,160	23,996	9,572	12,572
25.5	Agreements.....	244,354	179,419	220,576	207,069
25.6	ADP Services and Supplies.....	5,075	4,171	4,440	4,440
25.7	Miscellaneous Services.....	7,762	5,394	7,452	7,452
25.8	Fees.....	1,616	586	1,551	1,551
26	Supplies and materials.....	47,353	37,530	45,161	42,161
31	Equipment.....	17,082	15,230	17,105	16,105
32	Land & Structure.....	220	51	220	220
41	Grants, Subsidies & Contributions.....	2,094	3,164	1,927	1,927
42	Indemnity/Compensation.....	2,713	1,150	2,395	2,395
43	Int. & Div.....	34	31	34	34
45	Special Payments.....	70	-	70	70
	Total, other objects.....	481,392	395,767	435,045	462,605
	Total direct obligations.....	\$930,992	\$812,854	\$897,035	\$929,240
Position Data:					
	Average Salary, ES positions.....	\$163,872	\$163,957	\$164,032	\$164,360
	Average Salary, GS positions.....	\$87,124	\$87,175	\$87,225	\$87,399
	Average Grade, GS positions.....	10.53	10.58	10.60	10.62

Note: Total direct obligations does not include advances and reimbursements or Agricultural Quarantine Inspection User Fees.

ANIMAL AND PLANT HEALTH INSPECTION SERVICE

Shared Funding Projects
(Dollars in thousands)

	2012 Actual	2013 Actual	2014 Estimate	2015 Estimate
Working Capital Fund:				
Administration:				
Beltsville Service.....	1,239	1,104	983	1,054
Mail and Reproduction.....	178	138	133	145
Integrated Procurement.....	1,399	1,414	1,372	1,435
Procurement Operations.....	-	3	3	3
Subtotal.....	2,816	2,660	2,491	2,637
Communications:				
Creative Media & Broadcast Center.....	219	114	493	221
Finance and Management:				
NFC/USDA.....	1,453	1,823	2,107	2,113
Controller Operations.....	2,438	2,359	2,597	2,606
Financial Systems.....	4,483	4,033	3,606	3,572
Internal Control support Services.....	74	162	112	121
Subtotal.....	8,448	8,376	8,423	8,412
Information Technology:				
NITC/USDA.....	6,530	6,341	3,454	3,719
International Technology Services.....	1	85	2	2
Telecommunications Services.....	2,026	1,868	1,372	1,576
Subtotal.....	8,557	8,294	4,828	5,297
Correspondence Management.....	357	345	268	319
Total, Working Capital Fund.....	20,398	19,788	16,504	16,886
Department-Wide Reimbursable Programs:				
1890's USDA Initiatives.....	226	214	215	215
Advisory committee Liaison Services.....	30	23	28	28
Continuity of Operations Planning.....	128	152	153	153
E-GOV Initiatives HSPD-12.....	464	484	493	493
Emergency Operations Center.....	176	170	169	169
Facility and Infrastructure Review and Assessment.....	35	31	33	33
Faith-Based Initiatives and Neighborhood Partnerships.....	30	28	29	29
Federal bio-Based Preferred Procurement Program.....	26	25	25	25
Hispanic-Serving Institutions National Program.....	149	145	146	146
Honor Awards.....	4	3	6	6
Human Resources Transformation (Inc. Diversity Council).....	124	117	119	119
Intertribal Technical Assistance Network.....	147	-	-	-
Medical Services.....	39	53	56	56
Personnel and document Security.....	342	151	155	155
Pre-authorizing Funding.....	257	249	272	272
Retirement Processor/Web Application.....	40	42	42	42
Sign Language Interpreter Services.....	118	154	163	163
TARGET Center.....	66	66	67	67
USDA 1994 Program.....	59	56	57	57
Virtual University.....	156	151	151	151
Visitor Information Center.....	59	63	71	71
Total, Department-Wide Reimbursable Programs.....	2,677	2,379	2,449	2,449
E-Gov:				
Budget Formulation and Execution Line of Business.....	7	7	7	7
Enterprise Human Resources Integration.....	214	183	164	164
E-Rulemaking.....	34	77	75	75
E-Training.....	204	175	203	203
Financial Management Line of Business.....	5	13	13	13

	2012 Actual	2013 Actual	2014 Estimate	2015 Estimate
Geospatial Line of Business.....	-	9	-	-
Grants.gov.....	45	52	-	-
Human Resources Line of Business.....	18	20	20	20
Integrated Acquisition Environment - Loans and Grants.....	89	100	139	139
Integrated Acquisition Environment.....	43	51	49	49
Total, E-Gov.....	660	686	670	670
Agency Total.....	23,918	23,027	19,803	20,185

Physicians' Comparability Allowance (PCA) Worksheet

APHIS Table 1

		CY 2013 (Actual)	CY 2014 (Estimates)	BY 2015 (Estimates)
1) Number of Physicians Receiving PCAs		1	1	1
2) Number of Physicians with One-Year PCA Agreements				
3) Number of Physicians with Multi-Year PCA Agreements		1	1	1
4) Average Annual PCA Physician Pay (without PCA payment)		\$126,251	\$126,251	\$126,251
5) Average Annual PCA Payment		\$30K	\$30K	\$30K
6) Number of Physicians Receiving PCAs by Category (non-add)	Category I Clinical Position			
	Category II Research Position			
	Category III Occupational Health	1	1	1
	Category IV-A Disability Evaluation			
	Category IV-B Health and Medical Admin.			

- 7) If applicable, list and explain the necessity of any additional physician categories designated by your agency (for categories other than I through IV-B). Provide the number of PCA agreements per additional category for the PY, CY and BY.

Not applicable

- 8) Provide the maximum annual PCA amount paid to each category of physician in your agency and explain the reasoning for these amounts by category.

Thirty thousand (\$30k) per annum is paid to the category III physician currently employed by APHIS. A physician was needed who had both category III and IV-B experience due to the nature of APHIS' mission. APHIS is responsible for protecting the health and value of American agriculture and natural resources. The incumbent is instrumental in protecting the Agency's employees from zoonotic pathogens in addition to other hazards in the workplace. The incumbent has expert knowledge of the workplace infrastructure and is able to expertly interface at all levels in addition to being instrumental in developing policies and practices to protect workers.

- 9) Explain the recruitment and retention problem(s) for each category of physician in your agency (this should demonstrate that a current need continues to persist).

As this is a singular position, staffing difficulties, per se, are not an issue at this time. However, should the incumbent opt to leave, it is anticipated that without a PCA to move the salary closer to parity with private sector physician salaries, staffing difficulties would clearly ensue. It is inherently difficult to recruit physicians for Federal service within the DC area due to the area's high cost of living and the discrepancy in salary levels offered between private industry and the Federal service. Salary data from 2008 – 2012 indicates that physicians salaries in occupational medicine and family practice range from \$145,000 to \$204,000. Offering a PCA brings closer parity with these figures to ensure retention of the physician currently employed.

- 10) Explain the degree to which recruitment and retention problems were alleviated in your agency through the use of PCAs in the prior fiscal year.

As this is a singular position, staffing difficulties, per se, are not an issue at this time. However, should the incumbent opt to leave, it is anticipated that without a PCA to move the salary closer to parity with private sector physician salaries, staffing difficulties would clearly ensue. The PCA has ensured the retention of the current incumbent.

- 11) Provide any additional information that may be useful in planning PCA staffing levels and amounts in your agency.

Not applicable

ANIMAL AND PLANT HEALTH INSPECTION SERVICE

SALARIES AND EXPENSES

STATUS OF PROGRAM

SAFEGUARDING AND EMERGENCY PREPAREDNESS/RESPONSE

Current activities: Together with its stakeholders, APHIS promotes the health of animal and plant resources to ensure abundant agricultural products and services for U.S. customers. APHIS monitors and responds to potential acts of agricultural bio-terrorism, invasive species, diseases of wildlife and livestock, and conflicts between humans and wildlife as it strives to assure its stakeholders that it is on guard against the introduction or re-emergence of animal and plant pests and diseases that could limit agricultural production.

When a pest or disease is detected in the United States, APHIS works cooperatively with other Federal, State, Tribal and industry partners to conduct plant and animal health monitoring programs to rapidly diagnose them and determine if there is a need to establish new pest or disease management programs. APHIS, in conjunction with States, Tribes, industry, and other stakeholders, protects American agriculture by eradicating harmful pests and diseases or, where eradication is not feasible, by minimizing their economic impact. The Agency monitors endemic pests and diseases through surveys to detect their location and through inspection to prevent their spread into non-infested parts of the country.

The Agency maintains a cadre of trained professionals prepared to respond immediately to potential animal and plant health emergencies. Program personnel investigate reports of suspected exotic pests and diseases and take emergency action if necessary. To facilitate these efforts, APHIS develops pathway studies and thoroughly investigates the progression of outbreaks to determine the origin of plant and animal pests and diseases. APHIS also actively engages State, Tribal, and local governments, and industries to advance their emergency preparedness and response capabilities.

Through its Wildlife Services program, APHIS protects agriculture from detrimental animal predators through identification, demonstration, and application of the most appropriate methods of control. APHIS also develops methods to control animals and pests that are detrimental to agriculture, wildlife, and public safety. The Agency's regulatory structure brings the benefits of genetic research to the marketplace, while protecting against the release of potentially harmful organisms into the environment. APHIS also conducts diagnostic laboratory activities that support the Agency's veterinary disease prevention, detection, control, and eradication programs. The Agency also provides and directs technology development in coordination with other groups in APHIS to support plant protection programs of the Agency and its cooperators at the State, national, and international levels.

Selected Examples of Recent Progress - Animal Health:

1. Animal Health Technical Services

APHIS' Animal Health Technical Services (AHTS) program enhances the tools available for acquiring and managing information vital for maintaining and improving global market access. The incorporation of national surveillance data standards into data management applications makes it possible for animal health information, entered by Federal, State, Tribal, and private individuals in multiple systems, to be compiled nationally, thus leveraging the work of animal health professionals across the country to meet local, State, and national veterinary health objectives. Private veterinarians trained and accredited by APHIS help producers meet export requirements and disease program standards, allowing U.S. animals and animal products to compete in the global economy. Disease transmission and spread models developed and shared by the Agency allow improved planning and management of animal health incidents.

Information Management

The AHTS program develops new information management systems, while maintaining and improving existing data systems and applications. APHIS makes these systems available to States and Tribal Nations, who use them to support their traceability plans and other animal health activities. In FY 2013, the AHTS program upgraded its national animal health surveillance system by completing the replacement of APHIS' Generic Disease Database (GDB) with commercial off-the-shelf (COTS) software known as Surveillance Collaboration Services. Using a COTS product instead of developing the entire system internally is consistent with government and agency initiatives for improving information technology (IT) management. The move will allow for quicker development of meaningful functionality and consolidation of existing IT systems, thereby increasing the efficiency of data capture and providing a streamlined national approach. The software will be housed in a USDA enterprise data center and will be available for State and Federal animal health officials in all 50 States, 2 tribal nations, Puerto Rico, and the U.S. Virgin Islands by January 2014. This system will enhance communication and data accuracy, create significant lifecycle and maintenance efficiencies, and make standardized data readily available. The savings were generated because the GDB system required investments in APHIS staff development, software procurement, and services to help architect the system within Oracle. As opposed to an in-house system, a COTS system generates significant savings in the areas of procurement, development, and maintenance. APHIS is using the savings to further integrate data features into the COTS system. With many data sources from several partners, IT systems, and locations, data integration becomes vital in moving into this system information that was not captured previously.

In addition, APHIS implemented a business intelligence reporting tool for State partners. The reporting tool enables users without technical knowledge to extract and analyze data, and assemble reports. Also in FY 2013, APHIS enhanced the report writing options for the ADT Information System, which enables Federal and State agencies to document the movement history of an animal throughout its life. Further, the Agency implemented a warehouse inventory management and provisioning system at the National Center for Animal Health in Ames, Iowa, and established an inter-system communication of laboratory test results from the National Veterinary Services Laboratories information management system to the National Animal Health Laboratory Network repository.

The speed of commerce demands that information move as expeditiously and efficiently as possible to meet client expectations and demands. The U.S. veterinary diagnostic laboratory community has struggled to accomplish such information transfers for years. Many parts of the necessary infrastructure to support these transfers exist – including Laboratory Information Management Systems, messaging software, messaging standards, and State and Federal databases – but there is currently no overall linkage between these parts. The development of a State Animal Laboratory Messaging Service (SALMS) is designed to complete the linkages and provide an end-to-end infrastructure for the electronic transfer of information. The “missing link” is a central message routing site. SALMS is intended to address this and bridge the gap between what are now isolated systems. Specifically, the SALMS will provide a messaging service for all State or Federal veterinary diagnostic laboratories; create a communication path between participants for any testing service; and improve the efficiency and accuracy of information transfer. In addition, it will require that messages be in a standardized language format and require a participant to create and receive messages in this format. SALMS will be administered by Cornell University, inside its secure firewall with 24/7 availability. It will be free to qualified participants. In FY 2013, APHIS achieved parallel deployment of both SALMS and the Laboratory Messaging Services.

In FY 2013, the Licensing, Serial Release, Testing Information System (LSRTIS) became fully functional. This system provides APHIS a means for processing, tracking, and authorizing more than 73 billion doses of vaccine and related animal biologic products. The modifications allow LSRTIS to further track inspections and investigations; improve data sharing and accuracy; provide more secure, remote data access; and enable trend analysis as well as more efficient data queries and reports generation. Furthermore, electronic processing of Certificates of Licensing and Export Certificates is now possible, providing considerable time and cost savings.

Modeling

APHIS uses models to improve our understanding of historical events, to estimate future consequences, and inform strategic, logistical, and budgetary decisions based on an evaluation of the effectiveness of varying interventions.

In FY 2013, APHIS and their collaborators at the University of Minnesota and the National Center for Foreign Animal and Zoonotic Disease Defense completed work to quantify the epidemiologic impact of delayed detection of foot-and-mouth disease (FMD), examine diagnostic testing strategies for an FMD outbreak response, and assess vaccination strategies for FMD control in New Mexico. These strategies consisted of vaccinating susceptible herds within varying distances of detected herds, in circles or rings around detected herds. The modeling demonstrated the need for early detection and a robust laboratory capacity, as well as the effectiveness of applying vaccine to address a hypothetical FMD incursion in New Mexico.

Also in FY 2013, APHIS completed the development and application of the U.S. Animal Movement Model and the U.S. Disease Outbreak Simulation Model. These models are designed to provide a quantitative, national scale understanding of cattle movements in the United States. In addition, they assess the potential for the spread of diseases, such as bovine tuberculosis and FMD. In FY 2013, APHIS used these models to evaluate the effectiveness of movement restrictions under varying conditions of a hypothetical FMD outbreak. The development and application of these models highlights the role models play in developing animal health emergency response plans and strategies.

Animal Disease Traceability

The national Animal Disease Traceability (ADT) framework allows Federal, State, Tribal, and private animal health professionals to work together to identify diseased animals, quickly trace their movements, and control disease spread to protect the livestock industry, whose production value was approximately \$70 billion in 2012 (National Agricultural Statistical Service, USDA). Knowing where diseased and at-risk animals are located helps preserve animal health, reduce the number of animal illness and deaths if outbreaks occur, and limit economic loss to owners and communities.

On January 9, 2013, USDA published a final rule establishing general regulations for improving traceability of U.S. livestock moving interstate. The rule took effect on March 11, 2013, and requires the official identification of covered livestock as well as a defined movement document unless otherwise exempt. In FY 2013, USDA expanded the availability of official animal identification eartags at no cost to producers. Other official, USDA-approved identification methods are readily available for producers to purchase to ensure that the identification options work best for their individual management system. The commonly used interstate certificates of veterinary inspection certificates (ICVI) are the primary movement documentation used to obtain movement information. This practice minimizes the regulatory burden on producers when shipping livestock to other States. APHIS has collaborated with the impacted States and industries to expand options for increasing the availability of electronic ICVIs. Electronic ICVIs are easier to search than paper documents when animals need to be traced. The administration of trace test exercises by the States was initiated to support the development of traceability performance baseline values. These measures will be used to document progress made through ADT implementation in the future. Using performance measures provides flexibility to the States to work with producers at the local level to determine solutions that work best for them while enhancing traceability.

National Veterinary Accreditation Program

Approximately 71,000 accredited veterinarians act as the first line of defense for reportable domestic and foreign animal diseases. The voluntary National Veterinary Accreditation Program (NVAP) authorizes private veterinary practitioners to work cooperatively with Federal veterinarians and State animal health officials. In FY 2013, the NVAP created a supplemental training module for accreditation renewals for the first time in the veterinary accreditation program's 92-year history. More than 8,000 accredited veterinarians applied for renewal online, saving an estimated 7,000 staff hours that would have been needed to process paper applications. APHIS now hosts 20 web-based supplemental training modules for accredited veterinarians and is on schedule to complete 3 additional modules in the near future. These supplemental training and renewal requirements provide increased

knowledge of animal disease surveillance, prevention, zoonoses, and disaster preparedness. Accredited veterinarians have completed more than 70,000 web modules, as well as over 10,000 modules at major and minor veterinary conferences.

2. Aquatic Animal Health

The Aquatic Animal Health Program activities focus on protecting the animal health of the U.S. aquaculture industry, valued at \$1.4 billion in 2007 (USDA- National Agricultural Statistics Service 2007 Census of Agriculture). This program carries out activities consistent with the National Aquatic Animal Health Plan (NAAHP) by providing national coordination, surveillance, and testing for important high-consequence aquatic animal diseases. The NAAHP is a set of guiding principles and recommendations on protecting the health of our nation's farmed and wild aquatic animal resources. It was developed and signed by the three Federal government agencies responsible for the national oversight of aquatic animal health (APHIS, the National Oceanic and Atmospheric Administration (NOAA), and the U.S. Fish and Wildlife Service (FWS)) with input from key stakeholders (e.g., industry, universities, Federal and State governments, and tribal agencies). APHIS serves as the NAAHP lead to facilitate collaboration with stakeholders and to consult with an advisory group called the Subcommittee on Aquatic Animal Health on aquatic animal health priorities that support interstate and international commerce.

In FY 2013, APHIS collaborated with NOAA, FWS, the U.S. Geological Survey, the States of Washington and Alaska, and the Northwest Indian Fisheries Commission to continue the infectious salmon anemia (ISA) surveillance project. This project is designed to determine the risk posed to wild Pacific salmon and the coastal economies that rely on the industry. ISA has caused devastating losses in domestic and international Atlantic salmon farming operations. In FY 2013, APHIS continued to collect health information about ISA in wild and farmed salmon populations throughout Alaska and Washington using improved detection methods. At the end of Year 1 of a two year surveillance study, more than 2,500 samples had been collected and tested, with no ISA virus detections. Year two sampling is underway and the surveillance project will be completed in FY 2014. The samples are collected by a variety of Federal, State, tribal, and industry partners.

In FY 2013, APHIS continued to support the health of the nation's aquaculture industry by providing confirmatory testing at the National Veterinary Services Laboratories in Ames, Iowa. In FY 2013, APHIS developed a strategic plan to establish aquatic animal pathogen testing with the National Animal Health Laboratory Network (NAHLN) starting with ISA and viral hemorrhagic septicemia (VHS). Adding aquatic animal testing to the NAHLN will enable APHIS to build our nation's capacity for accessible, timely, accurate, and consistent aquatic animal disease laboratory services under a quality management system. Through the NAHLN, APHIS will standardize testing for targeted surveillance to be used for baseline and zonation studies (disease freedom), monitoring of high-consequence aquatic diseases of regulatory or industry concern, responding to disease outbreaks, and interstate movement and international and trade. APHIS will implement the plan in early FY 2014.

At the end of FY 2013, there have been no reports of VHS in U.S. aquaculture facilities. In FY 2013, APHIS evaluated VHS surveillance data, conducted a risk assessment, and engaged stakeholder groups to re-assess whether Federal requirements are still necessary for fish movement within and out of the Great Lakes Region. APHIS is considering all of the information and will make a decision in early 2014.

3. Avian Health

The Avian Health program protects the health of avian species, improving the quality, productivity, and economic viability of the poultry industry, valued at \$38 billion in 2012. APHIS activities include disease prevention, monitoring and surveillance, and investigation and response actions undertaken when avian health issues are identified. APHIS' surveillance programs for avian species detect foreign, zoonotic, and domestic diseases that could substantially impact domestic production and the economy. Surveillance information can demonstrate that certain diseases do not exist in the poultry populations, thus facilitating trade and protecting public health. APHIS also maintains regulations and national program standards and guidelines that direct avian health activities at the Federal, State, and Tribal levels. Establishing and maintaining these standards is a vital Federal responsibility that

supports interstate and international commerce by providing assurances regarding the health of avian species and products being moved or traded.

This program focuses on notifiable avian influenza (AI), which are forms of AI that are reported to the World Organization for Animal Health (OIE) due to their potential for health threat and disease spread. The AI virus changes rapidly in nature by mixing its genetic components to form slightly different virus subtypes. Domestically, APHIS works with other Federal agencies, States, and industry to prevent AI introduction in U.S. commercial broilers, layers and turkeys, their respective breeders, and the Live Bird Marketing System (LBMS). Internationally, APHIS works with organizations such as the OIE, the Food and Agriculture Organization of the United Nations (FAO), and the OIE/FAO Network of Expertise on AI to rapidly identify and respond to AI.

The National Poultry Improvement Plan (NPIP) is a Federal-State-industry cooperative program that, along with the LBMS, has 42 States and Puerto Rico participating in AI prevention and control. More than 95 percent of the commercial broiler, turkey, and egg industries and 100 percent of the commercial poultry breeding industry participate in the NPIP. In addition, the NPIP has 1,290 authorized laboratories with trained technicians approved to provide the diagnostic testing necessary for the NPIP. APHIS' State cooperators conduct surveillance and diagnostic activities for the LBMS, upland game, commercial surveillance outside of the LBMS, and assistance to the broiler industry for AI surveillance in commercial operations. These activities enable the United States to certify to our trading partners that many classes of poultry originate from flocks that are monitored or free of diseases such as salmonella, mycoplasma, and notifiable AI. The NPIP enables diagnostic technology to be applied to the improvement of poultry and poultry products nationwide. LBMS testing is vital to preventing and controlling the disease in markets, but also among production premises and poultry distributors that supply those markets. In 2013, APHIS performed approximately 1.8 million tests through the NPIP, with an additional 149,232 tests for AI surveillance under the LBMS for the first fiscal three quarters. The number of LBMS premises that tested positive for AI decreased from 34 in 2007 to 5 in 2013. The positive premises were depopulated, cleaned, and disinfected according to established standards.

APHIS continued to work with the Centers for Disease Control and Prevention, the Department of the Interior (DOI), and other government agencies to monitor the H7N9 virus in China, assess potential introduction pathways, and modify preparedness and response plans if appropriate. APHIS and the DOI concluded that the risk of introduction and spread of H7N9 to the United States is low. USDA surveillance activities in wild birds would detect the virus should an introduction occur. In addition, USDA trade requirements will prevent the legal entry of potentially infected materials. APHIS offices in Asia help collect real-time information on avian health and the H7N9 virus. APHIS conducts surveillance and capacity building activities, provides training and oversees epidemiology and diagnostic testing throughout the region. To open markets for U.S. poultry in Asia, APHIS has negotiated sanitary protocols for trade of various poultry and poultry-related products. When markets have been abruptly closed to certain U.S. States or regions in response to low pathogenic AI detections, APHIS provides science-based rationales for reopening the markets, coordinates informational visits and exchanges, facilitates the United States' industry access to decision-makers, and participates in continued negotiations.

APHIS protects against the introduction of highly pathogenic AI into the United States and the spread of low pathogen avian influenza within the United States. The Agency works with State animal health officials and the poultry industry to conduct surveillance of breeding flocks at slaughter plants, live-bird markets, livestock auctions, and poultry dealers. The Agency continues to work closely with stakeholders to address issues and ensure program activities are sufficient to protect the health of U.S. poultry.

APHIS conducted additional AI sampling in upland game birds to increase knowledge on the transmission mechanisms from wild birds to poultry and humans. In 2013, APHIS sampled 3,253 apparently healthy birds for AI and found no highly pathogenic avian influenza (HPAI). Of the samples tested, 2.5 percent were positive for low pathogenic AI. In addition to testing bird populations, APHIS oversees the importation of poultry and poultry product imports to minimize disease spread through trade. To support AI detection at U.S. ports of entry in FY 2013, APHIS' Investigative and Enforcement Services initiated more than 3,100 cases, issued 145 official warnings, and issued 2,523 pre-litigation settlements that resulted in the collection of more than \$1.3 million in stipulated penalties.

Outreach efforts further prevent avian disease. For example, the Biosecurity for Birds (BFB) program raises awareness about preventing the introduction and spread of AI and other infectious poultry diseases. This program enables APHIS to reach targeted segments of the avian marketplace, including backyard poultry producers and pet bird owners, and educates them on AI and how they can reduce HPAI threats. The campaign reaches a wide variety of audiences through educational materials and an expanded social media presence. Bird Health Awareness Week featured a Twitter chat with an APHIS veterinarian and an online game. The Healthy Harry and Dr. Kate video series has received 80,000 views. The BFB campaign continues to distribute educational materials, including a bilingual calendar, fair packages, and biosecurity information in numerous languages.

While prevention is the ultimate goal of the Avian Health program, APHIS also prepares for the possibility of disease spread. The Agency uses disease spread modeling to evaluate disease outbreak scenarios, planning, and assessment of disease control strategies. In FY 2013, APHIS continued to sponsor the Crisis Management Center (CMC) for Animal Health at FAO. The CMC is an emergency response branch of FAO's Emergency Center for Trans-boundary Animal Diseases. Its strategic goal is to respond to and contain disease outbreaks threats. The CMC provides resources to quickly respond to outbreaks such as AI in countries where the United States cannot place personnel or respond bilaterally. This approach reduces the threat of disease outbreaks such as AI from becoming a pandemic. Another principle role of APHIS is to ensure that our trading partners adhere to the Sanitary and Phytosanitary rules set forth by the World Trade Organization, as well as the other relevant international standards-setting organizations, as the United States and FAO-Rome continue to expand their trade relationships and establish new partnerships.

4. Cattle Health

The Cattle Health program protects the health of cattle and improves the quality, productivity, and economic viability of the \$85 billion cattle industry (National Agricultural Statistics Service). APHIS activities include disease prevention, monitoring and surveillance, and disease investigation and response actions. APHIS also maintains regulations, national program standards, and guidelines that direct cattle health activities at the Federal, State, and Tribal level. Establishing and maintaining these standards is a vital Federal responsibility that supports interstate and international commerce by providing assurances regarding the health of animals and products being moved or traded.

Surveillance and Monitoring

APHIS conducts surveillance and monitoring for diseases to safeguard the health of U.S. cattle and demonstrate disease status to trading partners. In FY 2013, APHIS conducted surveillance through the testing of cows and bulls at slaughter, first-point testing (at livestock markets, shows, sales, buying stations, etc.), whole herd and individual animal testing on-farm, and testing of cattle at rendering facilities (operations that collect dead, dying, disabled, and diseased animals). APHIS worked with States, Tribes, and producers to survey for critical cattle health diseases, including bovine tuberculosis (TB), bovine spongiform encephalopathy (BSE), brucellosis, and cattle fever tick (CFT).

Bovine TB was once the most prevalent infectious disease of cattle and swine in the United States. Although cattle are considered to be the primary host of the disease, TB has been reported in several other animal species, as well as in humans. APHIS' surveillance for bovine TB includes testing cattle and slaughter surveillance that is conducted in conjunction with the USDA's Food Safety and Inspection Service. Since the Bovine TB program began in 1917, it has markedly decreased the prevalence of the disease in U.S. livestock. The disease prevalence rate in cattle herds has dropped from 5 percent to less than 0.001 percent. In FY 2013, the program tested 11,312 slaughter samples. Through on-going surveillance testing and slaughter surveillance, TB was detected in seven cattle herds- four beef and three dairy.

Another disease of concern is BSE, a chronic degenerative disease that affects the central nervous system of cattle. BSE is extremely rare and is not contagious. The Food and Drug Administration's (FDA) 1997 ban on feeding mammalian protein to ruminants has been an effective means for mitigating the disease. Removing risk materials from cattle slaughtered for human consumption further mitigates the human health risk. APHIS' BSE surveillance effort is designed to detect one BSE case in one million adult cattle with 95 percent confidence. This goal exceeds

the standard required by the World Organization for Animal Health (OIE). The Agency's surveillance approach includes testing samples from slaughter and livestock markets, farms, rendering facilities, and diagnostic laboratories. The testing at livestock markets is done on tissue removed from down or disabled cattle that are euthanized at these markets to remove them from live animal commerce. This approach enables APHIS to detect BSE at very low prevalence and assess any change in the BSE status of cattle. In FY 2013, APHIS tested approximately 43,000 samples for BSE, with no new cases detected.

Bovine brucellosis, caused by the bacteria *Brucella abortus* in cattle and bison, is a serious infectious and contagious disease that significantly affects animal and public health, and national and international trade. In cattle, this disease can cause decreased milk production, weight loss, abortions, infertility, and lameness, impacting the livelihood of cattle producers and the supply of meat and dairy products available to the public. The Federal-State brucellosis eradication effort has eradicated bovine brucellosis from domestic cattle and bison herds. All 50 States have been Class Free for this disease since July 2009. In FY 2013, brucellosis was detected in one cattle herd in the Greater Yellowstone Area (GYA) in the State of Montana. Five other herds detected in FY 2011 and FY 2012 remain under quarantine with affected-herd management plans, including movement controls and additional herd testing. There is no indication that brucellosis has spread outside the GYA. This area is APHIS' primary focus for brucellosis in livestock because the disease is endemic there in wild elk and bison. APHIS continued carrying out the national bovine brucellosis slaughter surveillance plan to increase the efficiency of this surveillance stream. In FY 2013, APHIS tested approximately 2.9 million head of cattle under the Market Cattle Identification (MCI) slaughter surveillance program and an additional 164,700 head of cattle at livestock markets. Approximately 143 epidemiologic investigations were conducted on suspicious MCI surveillance tests. APHIS tests cattle and domestic bison on farms or ranches for movement, private sale, issue of herd certification, and for show or exhibition purposes. In FY 2013, APHIS tested 383,400 animals for such purposes. Also in FY 2013, approximately 3.6 million calves and approximately 19,500 adult cattle were vaccinated for brucellosis, and approximately 539 herds were certified as brucellosis certified-free cattle herds.

APHIS continues to conduct surveillance and monitoring to eliminate cattle fever. APHIS focuses on controlling the spread of CFT as it is the vector of bovine babesiosis, a severe disease of cattle that caused losses to the cattle industry in 1906 equivalent to more than \$1 billion in today's dollars. Although the United States is free of cattle fever, there is a permanent quarantine buffer between Texas and Mexico. Bordering Mexican states harbor tick species and the disease, and tick-infested white-tailed deer located near the U.S./Mexico border continue to affect the U.S. cattle population. In FY 2013, APHIS conducted 25,301 inspections of individual premises for ticks, including 7,406 river trail patrols. Surveillance for ticks includes inspection of cattle before they leave quarantined areas, surveillance at local markets, inspection of hunter-killed white-tailed deer, and horseback river trail patrols to capture stray Mexican livestock who serve as hosts for the ticks to enter the United States. In FY 2013, APHIS identified 19 newly infested premises inside the border, 31 fewer than in FY 2012. Further, there were 11 newly affected premises at the end of FY 2013 outside the border – the same number as FY 2012. Twenty percent (6 out of 30) of the new infestations in FY 2013 were identified due to infested white-tailed deer. Forty-five of the 88 stray cattle apprehended along the border were infested with CFT, along with 4 of the 47 stray horses/mules. Two stray goats were infested as well.

In FY 2013, APHIS continued working with neighboring countries to prevent the entrance of cattle diseases such as bovine TB, foot-and-mouth disease, BSE, and screwworm. APHIS and its cooperators have eradicated screwworm from the United States, Mexico, Belize, Guatemala, Honduras, El Salvador, Nicaragua, Costa Rica, and Panama. APHIS' international efforts prevent the reestablishment of screwworm in the United States by working with Panama, Mexico, and Central American countries to maintain a screwworm-free barrier zone in the Darien Gap, a narrow 102-mile stretch of jungle along the border of Colombia and Panama. APHIS produces approximately 40 million sterile flies per week at its Panama rearing facility. In FY 2013, there were no outbreaks or detections of screwworm infestations in Panama north of the barrier zone in Darien Province.

Investigation and Response Activities

In FY 2013, seven new TB-affected herds were identified. APHIS helped States conduct investigations in North Dakota (one beef herd), Michigan (three beef and two dairy herds), and California (one dairy herd). Of the seven new herds, four cattle herds (one Michigan dairy and three Michigan beef herds) were depopulated with Federal

indemnity funds and the remaining three herds are under test-and-removal management plans. APHIS restricts animal movement from TB-affected areas to control the spread of the disease. The Cattle Health Program has five State TB classifications, where a higher prevalence rate results in a lower ranking and more restrictive movement requirements. The classifications are, in descending order: accredited free (AF), modified accredited advanced (MAA), modified accredited (MA), accreditation preparatory, and non-accredited. At the end of FY 2013, 48 States, 2 Territories, and 1 zone were TB AF, including Puerto Rico and the U.S. Virgin Islands. California was MAA. Michigan continued to be divided into three classification zones: AF, MAA, and MA status. Four cases of brucellosis were detected in one cattle herd in FY 2013. This herd is located in Montana within the State's designated surveillance area and was detected as a result of Montana's designated surveillance area testing requirements.

APHIS controls CFTs along the quarantine line using a partial tick control barrier fence, livestock movement quarantines, and tick treatments for cattle and deer. To prevent the spread and re-establishment of the tick vectors, the program designated a permanent quarantine area along 500 miles of the Mexican border from the Gulf of Mexico to Del Rio, Texas, and established a cooperative Federal-State program. The cooperative efforts by APHIS and the Texas Animal Health Commission (TAHC) since FY 2010 have decreased the prevalence of ticks and have enabled Texas to release all acreage under quarantine for two of the three temporary preventive quarantine areas. This represented a release of 861,245 acres from quarantine with only 33,024 acres remaining under quarantine in the free area. The TAHC establishes these zones in areas outside of the APHIS-monitored permanent tick quarantine zones. To release a quarantine area, every infested premise must have all cattle treated for at least nine months, including inspections and treatments every two weeks. As a result, APHIS conducted more than 126,000 individual animal inspections and approximately 74,000 treatments. In FY 2013, the quarantine buffer zone and the free area of Texas contained 30 newly quarantined premises, compared to 61 in FY 2012. Although the permanent quarantine buffer zone has remained the same size during FY 2012 and FY 2013, the temporary quarantine zone decreased by approximately 88,000 acres in FY 2012 and by approximately 23,000 acres in FY 2013. Free-ranging and tick-infested white-tailed deer populations in the remaining temporary quarantine area, including the buffer zone, continue to challenge tick eradication efforts. The Cattle Health program's investigation and response to these cases protected more than 97.8 million cattle.

Scientific and Regulatory Development

In May 2013, the OIE changed the BSE risk status for the United States from controlled risk to negligible risk. This change in risk classification resulted from the recognition of the high standards and effectiveness of APHIS' BSE surveillance efforts over the past decade, as well as FDA's 1997 feed ban. The negligible risk status will enhance trade opportunities for the U.S. cattle and beef industries.

In FY 2013, APHIS continued work on final drafts of a proposed comprehensive brucellosis and bovine TB rule and accompanying program standards. This rule is designed to modernize program regulations and is intended to reduce administrative burdens placed on producers while maintaining cattle health, consumer confidence, and trade opportunities. The documents are predicated on the regulatory framework developed by a joint TB and Brucellosis Regulatory Working Group published in the *Federal Register* in May 2011, the comments received, and stakeholder feedback from FYs 2011 and 2012.

On December 27, 2010, APHIS published an interim rule that provides for a national brucellosis surveillance plan and includes a risk-based disease management area concept rather than loss-of-State status. Since then, APHIS has been working with States to transition to the new plan. This plan is designed to detect brucellosis infection with 95 percent confidence that the prevalence level of brucellosis does not exceed one infected animal per 100,000 animals, reduces slaughter surveillance sampling by more than 50 percent, and eliminates redundancies in surveillance activities. From FY 2009 to FY 2013, APHIS has reduced the number of slaughter surveillance samples collected for brucellosis from 7.3 million to 2.9 million. To further improve efficiencies, APHIS consolidated laboratory testing and established a standardized testing protocol. These changes enable the Agency to focus resources where disease risk is greatest, meet international surveillance standards, and maintain the integrity of U.S. export products. APHIS continues to work with stakeholders to improve surveillance efficiency.

In FY 2013, APHIS continued to work with a small South Texas livestock feed company to register a product with the FDA to control the spread of CFT. APHIS began field studies in FY 2012 to collect data for the registration process. Currently, APHIS is working with the Agricultural Research Service (ARS) and a major veterinary pharmaceutical company to evaluate a new anti-tick vaccine for use in South Texas. ARS completed laboratory trials with the experimental vaccine in FY 2013, and they plan to conduct field evaluation trials in FY 2014.

5. Equine, Cervid and Small Ruminant Health

The Equine, Cervid, and Small Ruminant Health program protects the health and improves the quality, productivity, and economic viability of the equine, cervid, sheep, and goat industries. These industries have a direct annual economic effect of \$39 billion for equine, \$894 million for cervid, and \$785 million for sheep. The direct economic impact for goats has not been reported but is likely about half that of sheep. APHIS activities include monitoring and surveillance, investigation and response, and disease prevention and preparedness actions taken when health issues are identified. APHIS' monitoring and surveillance activities detect foreign, emerging, zoonotic, and domestic diseases that could substantially impact the economy. APHIS works with international and domestic trading partners to facilitate safe trade in equine, cervids, and small ruminants and their products.

Monitoring and Surveillance

APHIS conducts monitoring and surveillance activities with States to protect the health of the equine, cervid, and small ruminant industries. Further, APHIS works collaboratively with States to ensure that cases of diseases of trade concern found in equine, cervids, and small ruminants are reported to the World Organization for Animal Health (OIE). In 2013, the Equine, Cervid, and Small Ruminant Health program conducted disease surveillance and/or monitoring for the following diseases: contagious equine metritis (CEM), chronic wasting disease (CWD), Eastern equine encephalitis (EEE) and Western equine encephalitis, equine herpes virus, equine piroplasmiasis (EP), equine infectious anemia (EIA), scrapie, tuberculosis (TB), vesicular stomatitis virus (VSV), and West Nile virus (WNV).

Scrapie is a fatal, degenerative disease that affects the central nervous system of sheep and goats. The industry loss due to classical scrapie is estimated to be \$10 to \$20 million annually, not including lost market opportunities due to export restrictions. APHIS performs the following activities to eradicate classical scrapie from the United States: live-animal, necropsy, and slaughter testing to identify infected animals; genetic testing to reduce the susceptibility of sheep flocks to scrapie and to identify which scrapie exposed sheep from infected and source flocks need to be removed to reduce the risk of recurrence; and testing of exposed animals that have moved out of infected flocks and animals exposed due to sale or movement of exposed or positive animals. In FY 2013, APHIS tested 44,955 samples from sheep and goats for scrapie, compared to 42,299 samples tested in FY 2012. This 6 percent increase is largely due to increased surveillance of scrapie in goats. Since 2003, approximately, there has been a 90 percent decrease in the percentage of positive scrapie sheep found at slaughter (adjusted for face color). At the end of FY 2013, the percent of cull sheep found positive at slaughter and adjusted for face color was 0.0146 percent compared to 0.0057 percent in FY 2012. During this final phase in the eradication effort, it is likely that the numbers will fluctuate from year to year.

To aid in the eradication of bovine TB in the United States, APHIS conducts surveillance testing on captive cervids for the disease. In FY 2013, APHIS began using a new primary screen serology test (the Cervid TB Stat-Pak) that uses a blood serum sample instead of a skin test, and a secondary test (Dual Path Platform VetTB) to further discriminate the primary test positives. The new tests are more sensitive and specific, reduce animal handling, and produce more timely results. Since the tests were introduced in February 2013, the program has tested 9,500 cervids.

In FY 2013, the program tested approximately 18,100 farmed cervids for CWD, a fatal, degenerative disease that affects the central nervous system and lymphoid system of cervids. Through this routine surveillance, no new CWD cases were reported in farmed cervids in FY 2013. The last CWD positive herd was reported in FY 2012 in an Iowa white tail deer herd. Twelve positive herds remain (seven elk herds in Colorado, three elk herds in Nebraska, one white tail deer herd in Iowa, and one red deer herd in Minnesota).

APHIS safeguards the equine industry by helping State animal health officials monitor equine diseases that threaten animal and human health. In 2013, APHIS continued active and passive surveillance activities in all States for vesicular stomatitis with deployment of foreign animal disease diagnosticians for investigation of suspect cases. As of November 11, 2013, APHIS had reported 316 of cases of equine WNV and 179 cases of EEE.

Investigation and Response

APHIS conducts investigations, responds to disease outbreaks, and enforces regulations that safeguard the health of the nation's livestock. In FY 2013, APHIS assisted in the epidemiological investigation and cleanup of 11 flocks to which scrapie-positive animals were traced. The Agency worked with affected flock owners to identify, indemnify, and remove at-risk animals to minimize the risk of disease recurrence and spread. Upon completion of the cleanup plan, flocks are placed on post-exposure management and monitoring plans for five years.

Although no new TB cases in captive cervids were detected in FY 2013, two captive cervid herds in Michigan remain under an indefinite quarantine since testing positive in 2009. The herds are located in an area of northeast Michigan where free-ranging white-tailed deer are a reservoir for bovine TB. APHIS is working with the State of Michigan to mitigate the risk of transmission from this wildlife reservoir to livestock.

Disease Prevention and Preparedness

APHIS' Herd Certifications Programs (HCPs) for CWD, TB, and scrapie provide criteria and minimum Federal standards for participating livestock owners to meet. APHIS reviews State applications, approves State CWD HCPs that meet the requirements of the national CWD HCP rule, conducts periodic reviews to ensure compliance, and supports confirmatory testing of presumptive cases. There are currently 29 States participating in the national CWD HCP – 22 have Approved Status and 7 have Provision Approved Status. States that meet all the minimum CWD HCP program requirements have Approved Status and States that do not meet all CWD HCP program requirements but have developed a work plan and time frame with APHIS to complete those requirements have Provision Approved Status.

The TB program recognizes three levels of herd qualifications for captive cervid herds. These three levels are Accredited, Qualified, and Monitored, and are based on testing over a specified time frame. At the end of FY 2013, there were 1,049 flocks enrolled in the Scrapie Flock Certification Program (SFCP). Of these, 439 were certified (i.e., the flock has a reduced scrapie risk) and 13 were export certified (i.e., the flock has a negligible scrapie risk). Participation in the SFCP provides producers the opportunity to protect their animals from scrapie and enhance the marketability of their animals by certifying their origin in flocks with minimal scrapie risk.

In FY 2013, there were outbreaks or ongoing occurrences of EP, CEM, equine herpes myeloencephalopathy, and VSV. APHIS supported State and industry responses to these outbreaks with coordination, diseases-specific technical guidance, epidemiological expertise, database maintenance, diagnostic assistance, and situation reports. APHIS disseminated a variety of information on equine diseases including WNV and EEE.

A new, privately operated, equine import quarantine station in Chicago was approved. APHIS conducted equine import testing and reported test results within one day to meet the 42-hour equine quarantine target. In 2013, APHIS conducted approximately 20,000 tests for dourine and glanders for equine importation, two highly contagious diseases that affect equines as well as other animals. APHIS provided laboratory certification and annual proficiency testing for EIA, equine viral arteritis, and EP.

Under the Commercial Transportation of Equines for Slaughter Act (9 CFR Part 88), APHIS' authority and role is to ensure the humane transport of U.S. origin equines to slaughter. A final rule, published in 2011, extended the regulatory protections to horses delivered to intermediate points. In 2013, the program trained 150 Federal, State and industry personnel on enforcing the regulation.

Regulatory Development

In FY 2013, APHIS revised the SFCP. The revised program emphasizes targeted sampling of participating sheep and goats for scrapie over passive observation. The new approach will enhance scrapie surveillance in the United States and provide greater assurance to trading partners that participating flocks that reach Export Certified status in the program are at negligible risk.

To further ensure the health of animals moving across State lines, APHIS plans to draft two proposed rules requiring disease testing before interstate movement. These rules include new testing requirements for EIA, a viral disease of equines that can spread to affect the health and productivity of the animal, and a TB/brucellosis rule that included interstate testing requirements for captive cervids. The rules would provide a comprehensive, flexible, and risk-based approach to managing EIA and TB/brucellosis.

Implementation of the interstate movement requirements in the CWD interim final rule began December 2012. Public comments are being considered. In November 2012, a CWD Working Group was formed. This group, which is comprised of representatives from the cervid industry, State regulatory agencies (Agriculture and Wildlife), National Animal Health Laboratory Network and The National Veterinary Services Laboratories, and APHIS personnel, provides input on the revisions to the CWD Program Standards, a companion guidance document to the CWD rule. Prior to being implemented, APHIS plans to seek public comments in the *Federal Register*.

6. National Veterinary Stockpile

Through the Agricultural Quarantine Inspection (AQI) program, APHIS and the Department of Homeland Security's (DHS) Bureau of Customs and Border Protection (CBP) safeguard U.S. agricultural and natural resources from the introduction of invasive pests and diseases. To exclude foreign pests and diseases, APHIS assesses the risks associated with international trade and specific imported agricultural products and develops regulatory import policies to protect agricultural health. In addition, the Agency conducts off-shore risk reduction activities including pre-departure inspections of passenger baggage destined for the continental United States from Hawaii and Puerto Rico and foreign commodity pre-clearance programs; trains agricultural inspectors and detector dog teams to work at U.S. ports of entry; fumigates arriving containers and cargo; inspects and quarantines imported plant propagative materials; conducts trade compliance activities to prevent smuggling; and provides the scientific support necessary to carry out these activities and those carried out by CBP.

APHIS receives appropriated funding for pre-departure inspections of passengers and cargo traveling from Hawaii and Puerto Rico to the continental United States to prevent the introduction of non-native agricultural pests and diseases into the continental United States while maintaining the highest level of agricultural security. Because of the high volume of travelers from these islands to the continental United States, along with the risks associated with numerous fruits, vegetables, and animal products associated with these areas, APHIS inspects all baggage of passengers leaving these islands. When inspectors identify an item that poses a specific risk, they take immediate action to prevent the entry of materials that could harbor the pest or disease in question. This action could prevent significant damage to the country's agricultural industry and negate the need for costly control and eradication programs. APHIS also partners with industry groups and State and Commonwealth counterparts to facilitate the safe movement of cargo. In Hawaii, the State Department of Agriculture conducts nursery inspections and certifies nursery stock for shipment to the continental United States. In addition to the appropriated funding, APHIS collects AQI User Fees under the authority of the Food, Agriculture, Conservation, and Trade Act of 1990 to recover costs for services provided by APHIS and CBP associated with preclearance or the port-of-entry arrival of commercial vessels, trucks, loaded railroad cars, aircraft, and passengers entering the United States from a foreign destination.

Cooperative Program Management

APHIS works with CBP to protect America's agricultural resources and food supply by inspecting international passenger baggage, cargo, and conveyances. During FY 2013, APHIS and CBP's Joint Task Force worked to develop a strategic plan for AQI activities. Based on recommendations from a General Accountability Office audit, the draft strategic plan (still in review as of 11/4/2013) focuses on key priorities such as enhancing detection, identification, and interdiction capabilities at ports of entry; enhancing targeting and analysis of incoming shipments

for agricultural purposes; and enhancing communication between the two Agencies. Toward these goals, APHIS has created a new position for an APHIS analyst at CBP's Commercial Targeting and Analysis Center. This collaboration will help the two Agencies track and close pathways for pest and disease introductions. To ensure the effectiveness of inspection policies, APHIS and CBP continue to conduct a quality assurance program, which includes port reviews. In FY 2013, APHIS and CBP conducted quality assurance reviews at six ports of entry and one follow-up review in Laredo, Texas. The program conducts follow-up reviews at ports of entry that have been selected from the previous year's reviews to verify the completion and implementation of tasks and recommendations issued to the port. In FY 2013, APHIS held 3 academies for CBP agriculture specialists, training 96 new officers. APHIS also held 14 sessions of basic agricultural threat training for first-line CBP officers, training 672 officers, and 3 sessions of agriculture fundamentals training for CBP import specialists, training 72 officers. APHIS and CBP are also beginning a new outreach effort to express carriers, and an analysis project to improve inspection and handling of express packages from foreign locations. The goal of the initiative is to reduce administrative requirements on express carriers while continuing to inspect high-risk packages and reduce the threat of invasive pest introductions. As part of the effort, APHIS and CBP toured several express courier hubs throughout the United States to evaluate current practices and identify potential changes.

Pre-Departure Inspections

APHIS inspected the baggage of approximately 13.2 million passengers before they left Hawaii and Puerto Rico and intercepted 262,821 prohibited items and 5,247 reportable pests (quarantine-significant pests that must be reported to Federal or State authorities) in FY 2013. APHIS evaluates the effectiveness of its pre-departure program by measuring the percentage of passengers destined for the continental United States from Hawaii and Puerto Rico that comply with agriculture quarantine regulations. In FY 2013, more than 98 percent of passengers were in compliance (calculated by determining how many passengers are carrying prohibited items through random sampling and comparing it to the actual number of prohibited items intercepted through inspections). To facilitate interstate trade between Hawaii and Puerto Rico and the continental United States, APHIS conducts commodity certification and inspection programs. In FY 2013, the program conducted 142,642 inspections of regulated agricultural commodities shipped from Hawaii and 10,408 inspections of regulated agricultural commodities shipped from Puerto Rico. In addition, the program oversaw or conducted 3,026 cargo treatments in Hawaii and 4,704 cargo treatments in Puerto Rico. APHIS continues to conduct methods development activities that expand the treatments available to allow additional fruits and vegetables to be shipped from these islands to the continental United States.

Port-of-Entry Inspections and Pest Interceptions

In FY 2013, more than 155 million passengers and pedestrians entered the United States by air, bus, ship, train, or on foot. CBP agriculture specialists inspected the baggage of approximately 23 million (nearly 15 percent) of these travelers, through manual inspection, x-ray technology, or detector dogs. Also in FY 2013, the program inspected 695,540 of the 91 million passenger vehicles entering the United States from Canada and Mexico. Inspectors also cleared approximately 38,000 ships and 1.38 million cargo, mail, and express carrier shipments, intercepting more than 111,000 pests. Of the travelers inspected, approximately 96.7 percent of international air passengers, 97.4 percent of southern border vehicles, and 92.1 percent of northern border vehicles were found to be in compliance with agriculture quarantine regulations.

Plant Germplasm Quarantine

APHIS' Plant Germplasm Quarantine Program (PGQP) is the largest plant quarantine program in the United States. This program provides quarantine services for importing plant cultivars and germplasm safely, to prevent foreign pathogens from entering our environment and agricultural production areas. In FY 2013, the PGQP released from quarantine 84 bamboo clones, 81 grass clones, 72 pome fruits, 82 potato clones, 12 potato true seed lots, 76 rice seed accessions, 1 gooseberry, 30 stone fruit clones, 332 stone fruit seedlings, 36 sugarcane, 14 sweet potatoes, and 9 woody ornamentals. New crops imported in FY 2013 include cassava and kiwis. These high-risk crops are prohibited entry into the United States in commercial quantities, but importers can bring in small quantities through an APHIS-approved plant quarantine program, like the one at the PGQP. The PGQP implemented new detection procedures for several pathogens, including Asian Prunus virus, plum bark necrosis stem pitting virus, *Xanthomonas albilineans* in sugarcane, potato leafroll virus, and sweet potato chlorotic stunt virus – East African

strain. Evaluations are underway to use multiplex polymerase chain reaction testing for detection of potato potyviruses, sweet potato DNA viruses, and viruses and viroids of pome fruits. Multiplex testing allows scientists to test for multiple diseases at once, rather than running separate tests for each disease of concern. The PGQP's outreach efforts included a presentation to Agricultural Research Service (ARS) scientists at the National Arboretum, reports to various Crop Germplasm Committees, and tours of the program for foreign visitors from Bosnia, China, Israel, and South Africa, as well as for U.S. visitors from Ball Ornamentals, a retailer/distributor, and the Department of State. The program also discovered new pathogens during testing of bamboo, *Miscanthus*, potato, stone fruits, and sweet potatoes. When the program finds a new pathogen, APHIS collaborates with other scientists in ARS or universities to characterize it and publish information about it. These collaborations may result in improvements in the PGQP's testing protocols to enhance our ability to detect new pathogens.

Pre-Clearance Inspections

APHIS conducts commodity pre-clearance programs in 29 countries to minimize pest and disease risks outside the United States and allow perishable products to reach markets promptly. This number includes one new country, Italy, where exporters initiated a pre-clearance program for apples and pears.

APHIS works with the U.S. Department of Defense and the DHS to inspect military passenger baggage and equipment before it returns from overseas. This work is necessary to prevent the entry into the United States of foreign plant and animal pests and diseases in returning military cargo, equipment, and vehicles. In FY 2013, APHIS fulfilled this role by training and providing technical assistance visits to military personnel serving worldwide in 20 countries. Designated APHIS personnel delivered agricultural preclearance training and certification to military personnel, stateside and in forward deploy locations in the Middle East, Central Asia, Europe, and Africa. In FY 2013, APHIS trained more 2,400 personnel in the United States alone. During technical assistance visits of up to 30 days, APHIS agriculture advisors evaluated passenger and cargo preclearance operations to ensure compliance with APHIS requirements. These activities enabled the expansion of the military preclearance capacity needed to support the increasing number of returning military personnel, cargo, and equipment, resulting from the current military drawdown in Afghanistan.

Smuggling Interdiction and Trade Compliance (SITC)

Through the SITC program, APHIS officials analyze and identify potential smuggling pathways, conduct product traces, and coordinate with investigative organizations to increase compliance with APHIS' regulatory requirements. APHIS also notifies CBP about potential agricultural risks at the ports of entry. In FY 2013, APHIS made 2,473 seizures of prohibited agricultural items in commercial locations, such as food/grocery/ethnic markets, swap meets, and other retail outlets. Those seizures totaled 132,790 pounds of prohibited and/or restricted plants and plant products and meat and meat products valued at approximately \$771,929. Of these products, 2,626 pounds, worth \$93,294, were directly linked to 18 Agency recalls. Items seized through these recalls included animal and plant products such as decorative items containing noxious weed seeds and prohibited poultry products from countries where highly pathogenic avian influenza is present. In conjunction with CBP, APHIS conducted 16 port-of-entry Special Operations and found additional prohibited plants and plant products as well as various high-risk animal products. For example, at the Miami International Post Office, APHIS and CBP inspected 72 packages and found that 63 contained prohibited agricultural items, such as seeds and other high-risk material. Through other special operations, APHIS and CBP found prohibited chicken gizzards from China labeled as turmeric root, mislabeled sliced deer antlers, and beef products from France. These items are all capable of transmitted high-risk animal diseases or are protected by international conservation treaties. APHIS is continuing to enhance its ability to prevent smuggling and is working to refine the best use of SITC resources to target the highest-risk items.

Asian Gypsy Moth

APHIS supports the exclusion of Asian gypsy moth (AGM) through negotiations and support of offshore AGM ship inspection and certification from Far East Russia, Japan, Korea, and China. Due to an increase in AGM egg masses that CBP agriculture specialists intercepted on ships in 2012, APHIS, CBP, and the Canada Food Inspection Service conducted increased outreach to the maritime shipping trade throughout 2013. APHIS coordinated joint U.S./Canada technical visits to Japan, Korea, and China in early 2013 to address the risk to forest resources from

shipping. As a result, although AGM ship inspections were still high in 2013, they were reduced by 25 percent from 2012 levels. APHIS, CBP, and the Canadian Food Inspection Agency are continuing discussions on strategies to enhance the exclusion effort in 2014.

Plant Inspection Stations

Importations of nursery stock and other propagative plant materials can serve as significant pathways for invasive pests and diseases. To reduce the risks associated with such imports, APHIS requires that certain imported plant materials enter the United States through plant inspection stations, which are located at ports of entry throughout the country at major international airports and seaports and at major crossings along the U.S.-Mexican border. Specialists at these stations inspect shipments to ensure that imported plants do not contain pests and diseases of regulatory significance. In addition, they enforce the regulations that apply to the import and export of plant species protected by the Endangered Species Act and the Convention on International Trade in Endangered Species of Wild Fauna and Flora. In 2013, inspectors cleared more than 22,000 imported shipments containing 1.3 billion plant units (cuttings, whole plants, or other propagative materials) and approximately 1,777,000 kilograms of seeds. Through these inspections, they intercepted more than 5,000 reportable pests. In addition, the stations conducted more than 900 treatments remediating more than 8 million plant units and almost 38,000 kilograms of seed. During FY 2013, APHIS also worked to develop a risk-based sampling method to improve inspection of imported plant material. The new protocol will maximize the effectiveness of inspections by incorporating statistically sound sampling for shipments based on the level of risk posed by the type and origin of the plant material. To help inspectors implement the new method, APHIS developed an on-line sampling tool that calculates the number of samples to inspect for each shipment. APHIS started using the new sampling method at four locations on October 1, 2013, and will review the data from these locations in FY 2014.

Risk Analysis and Scientific Support

APHIS' Plant Epidemiology and Risk Analysis Laboratory (PERAL) develops pest risk analyses and epidemiological approaches to pest exclusion. In 2013, PERAL personnel completed 211 risk analyses associated with imports, exports, invasive pest threats, and programmatic requirements. This work included 30 analyses to open, expand, or maintain export markets for U.S. producers. It also included evaluations of 53 new pests for potential risk to U.S. agriculture and 28 risk analyses for import requests from foreign countries. APHIS National Identification Services processed and identified 174,676 pests in FY 2013 (with 85,384 being reportable pests.)

Phytosanitary Export Certification

APHIS facilitates the export of agricultural shipments by tracking plant health import requirements for more than 200 countries, and provides certifications to U.S. exporters to help ensure that U.S. products meet other countries' requirements. More than 2,300 Authorized Certification Officials at the Federal, State, and county levels can access countries' certification requirements on-line and conduct inspections to issue phytosanitary certificates. These certificates facilitate the entry of commodities into foreign markets and represent approximately \$25 billion in trade annually. This program employs a web-based Phytosanitary Export Database, known as PEXD. This database, which is free to exporters, enables them to research requirements and better prepare for shipping. In addition, this program uses a Phytosanitary Certificate Issuance and Tracking (PCIT) database, which allows exporters to apply for certificates, schedule inspections, and pay certification fees. PCIT also collects State and county cooperator fees in addition to the USDA fees for phytosanitary certificates. Participating States/Counties save up to 160 staff hours each month by allowing APHIS to handle the collection and remittance of the fees for certificates issued by the States/Counties on APHIS' behalf. Currently, 31 States and 22 counties use this feature. PCIT also enables APHIS to capture export application information, document inspection and certification information, print an original phytosanitary certificate on secure paper, and generate export reports. The Agency is continuing its effort with international counterparts to begin exchanging phytosanitary certificates electronically. The United States began accepting electronic phytosanitary certificates for some seed shipments in FY 2013. Pilot exchanges with Australia and New Zealand will begin in FY 2014. In FY 2013, APHIS, State, and county officials issued more than 605,000 Federal export certificates for agricultural shipments.

7. Swine Health

The Swine Health program protects the health and improves the quality, productivity, and economic viability of the swine industry, valued at more than \$20 billion. APHIS activities include disease prevention/education, monitoring and surveillance, and investigation and response actions. In addition, the Agency maintains regulatory and programmatic guidelines that direct activities at the Federal, State, and Tribal levels. Establishing and maintaining national standards directly supports interstate and international commerce by providing assurances regarding the health of animals and products being moved or traded.

Monitoring and Surveillance for Swine Diseases

APHIS conducts surveillance activities to detect foreign, emerging, zoonotic, and domestic swine diseases that could potentially and substantially impact domestic producers and the national economy. The Agency collects swine samples from various locations (surveillance streams) for multiple diseases. In FY 2013, APHIS collected samples for the following diseases: pseudorabies virus (PRV), swine brucellosis, classical swine fever (CSF), and influenzas that affect swine. This comprehensive and integrated approach allowed APHIS to maintain surveillance, and target higher-risk samples while reducing surveillance costs.

APHIS collected samples from the following surveillance streams: veterinary diagnostic laboratories, slaughter plants, producer premises, livestock markets, and feral swine samples collected from elimination projects. For FY 2013 (quarters 1-3), the program tested 205,254 swine for PRV through various surveillance streams. More specifically during that time, APHIS tested 185,267 swine for PRV through slaughter surveillance and 18,075 swine through samples submitted to diagnostic laboratories. APHIS also tested 176,587 samples for swine brucellosis. In FY 2013 (quarters 1-3), APHIS tested 9,197 samples for CSF, a highly contagious viral disease that affects swine health. At the end of FY 2013, all commercial swine herds were free from brucellosis, PRV, and CSF.

Domestic swine remain at risk from diseases such as PRV and swine brucellosis in part due to the increasing number of feral swine in the United States (population estimated to be approximately five million in FY 2013), which may come in contact with domestic herds. APHIS sampled a subset of feral swine to monitor/test for diseases of concern that included 1,912 samples for PRV, 1,836 samples for swine brucellosis, and 2,257 samples for CSF.

APHIS has the responsibility under the Swine Health Protection Act to license and inspect swine production facilities that feed cooked garbage to swine, and to conduct searches for unlicensed facilities that may feed raw garbage to swine. This practice is a major risk factor for transmitting infectious diseases such as foot-and-mouth disease or CSF to swine. In FY 2013, APHIS supported 5,478 inspections of licensed premises and 35,601 searches for non-licensed facilities. Through these searches, 221 non-licensed feeders were identified. Through collaborative efforts with the States, facilities were either brought into compliance or ceased non-licensed garbage feeding.

APHIS prepares multiple reports outlining surveillance activities that are shared with industry stakeholders to provide information on animal disease activities. These reports support trade negotiations and assist States' animal health officials in science-based decision making. APHIS also prepares educational and scientific documents to support the industry. In FY 2013, APHIS collected random swine samples for the 2013 National Animal Health Monitoring System (NAHMS) report and is in process of documenting findings. NAHMS collects, analyzes, and disseminates data on animal health, management, and productivity across the United States. NAHMS also conducts studies designed to meet the information needs of the industries associated with domestic livestock populations.

Investigations and Responses to Disease Outbreaks

In FY 2013, APHIS' National Veterinary Services Laboratories confirmed the first detection of porcine epidemic diarrhea virus (PEDV) in the United States. PEDV is an emerging transboundary disease that impacts production through dramatic losses, primarily of baby pigs. PEDV does not impact trade because it is not a listed disease with the World Organization for Animal Health (OIE) and, therefore, has not caused trading partners to respond negatively. Since the discovery, APHIS has worked with State and industry stakeholders to investigate the incident, share information to understand the epidemiological findings, and inform the public of the disease. APHIS

continues to work with industry stakeholders, States, and diagnostic laboratories to obtain information to monitor disease trends.

In cases of PRV and swine brucellosis where testing and removing infected animals is not deemed an effective disease management approach, APHIS supports whole herd depopulation. In FY 2013, APHIS identified one infected domestic herd requiring whole herd depopulation. In all cases, APHIS and State partners quarantine infected herds, conduct routine testing to determine prevalence in the herd, and perform whole herd depopulation or removal of infected animals. These response efforts are essential to safeguarding commercial herds that may come in contact with infected small backyard herds.

In FY 2013, public health officials reported 20 human variant influenza cases from multiple States associated with exposure to swine, with most caused by extended close contact with swine at exhibition events (fairs). All outbreaks were jointly investigated by State public and animal health officials, with support from APHIS and the Centers for Disease Control. APHIS helps States and industry identify the isolates from the swine associated with these outbreaks. This information is used to improve animal health diagnostics and animal vaccines, and may be used by human health experts in forecasting human influenza activities. Subtyping and sequencing data were entered into the USDA Influenza A in Swine Surveillance Database. Genetic sequences from these samples and from other swine isolates are entered into GenBank (a publicly accessible genomic database).

Regulatory Developments

APHIS has been highly successful in eliminating PRV from the U.S. commercial swine herds. At the end of FY 2013, all States had maintained PRV-free status for ten years. Because of this success, APHIS is considering options to modernize the existing regulatory framework to reflect a comprehensive, risk-based, and science-based program to enhance surveillance while reducing the burden on States and producers. In FY 2013, APHIS published a concept paper on potential changes to regulatory programs. Based on the comments received, APHIS is continuing to work with States, Tribes, and industry to further develop a more comprehensive approach to swine surveillance, monitoring, and disease response.

8. Veterinary Biologics

APHIS' Center for Veterinary Biologics (CVB) regulates veterinary biological products under the Virus-Serum-Toxin Act, to ensure that these products are pure, safe, potent, and effective. These products, which include vaccines, bacterins, antisera, diagnostic test kits, and analogous products, are developed to diagnose, prevent, and treat animal diseases. CVB accomplishes its mission by developing rules and regulations concerning the production and licensing of veterinary biologics; evaluating pre-licensing dossiers and issuance of licenses and permits; testing products submitted for licensure; conducting facility and product inspections; approving product certifications; conducting investigations of non-compliance; and conducting post-marketing surveillance. This comprehensive regulatory approach is the most effective way to ensure that only quality, Federally-licensed veterinary biological products are available to U.S. consumers, and plays an essential role in the protection of animal health and agriculture.

Licensed Products and Inspections

APHIS licenses and inspects facilities to ensure that all veterinary biologics produced and distributed in, or imported into, the United States are of the highest quality, and not worthless, contaminated, dangerous, or harmful. Before veterinary biologics were regulated, farmers and animal health officials found products to be ineffective or contaminated with harmful diseases, including foreign animal diseases (FAD). In FY 2013, APHIS received 195 applications for new and renewal licenses and issued 60 licenses/permits for the prevention, diagnosis, management, or cure of existing or new/emerging animal diseases. By the end of FY 2013, there were 100 different manufacturers licensed for approximately 1,850 active veterinary biological product licenses/permits for the control of more than 216 animal diseases. These are critical for protecting American agriculture, facilitating trade, and enhancing agricultural economic opportunities.

APHIS inspects manufacturing facilities to ensure that biologics are produced in accordance with regulations. In FY 2013, APHIS conducted 67 on-site inspections, 17 percent of which supported a new establishment or product license for the industry. Licensing veterinary biologics is vital as they provide products to diagnose, prevent, or treat new and emerging animal diseases, or improve existing biologics. In FY 2013, CVB licensed the first vaccine for Rift Valley Fever, a zoonotic, FAD of economic and strategic significance. APHIS also performed 89 regulatory actions, issued 36 violation notices, and conducted 32 investigations of possible regulation violations. In addition, the Agency received 434 adverse event reports related to veterinary biological products. Adverse events are undesirable effects that occur after the use of a biological product. These events may, or may not, be caused by the product. APHIS gathers this information to better learn how products are used in field conditions and applied to the evaluation process to assure pure, safe, potent, and efficacious products are available.

The United States and foreign countries require import and export certificates to certify that products have been prepared in accordance with the Virus-Serum-Toxin Act. In FY 2013, APHIS reviewed/processed 3,351 Certificates of Licensing and Inspection, and reviewed/processed 1,158 Export Certificates for veterinary biological products. The Agency processed all Export Certificates within 4 days, and processed all Certificates of Licensing and Inspection within 28 days. Timely processing helps ensure that markets are accessible for veterinary biologics manufacturers who export their product. APHIS helped to ensure there were no FAD events related to the importation of nearly 167 million biologics doses.

In FY 2013, APHIS continued implementing several business process improvement projects designed to decrease the turnaround time for submissions. The Veterinary Biologics program focused on electronic submissions and notifications for serial release. In addition to reducing APHIS resources required for serial release notification, this business process change has an economic benefit for the industry as it allows products to reach the market faster. Other proactive steps to improve processes will continue in FY 2014 including the development of a portal to improve information exchange with stakeholders. APHIS also continued improvements to its pharmacovigilance information system, allowing better analysis and evaluation of licensed products.

Collaborative Efforts

In FY 2013, APHIS provided expertise and training at a joint Center for International Cooperation in Animal Biologics education program. More than 165 delegates from 37 countries participated in this course aimed at educating industry personnel and foreign officials on U.S. regulatory processes. The program promotes U.S. policy as a regulatory model for both established and developing markets, and it improves world-wide marketability of USDA-licensed biologics. APHIS also participated in harmonization efforts with major trading partners including Japan and the European Union through the International Cooperation on Harmonisation of Technical Requirements for Registration of Veterinary Medicinal Products.

APHIS responded to 41 requests for assistance with export issues, which addressed urgent concerns from the biologics industry regarding continued access to international markets, including Indonesia, Turks and Caicos, Turkey, Taiwan, Thailand, and Mexico.

APHIS also worked with the industry in developing a policy to address the licensure of production platforms. A production platform is a manufacturing process for incorporating one or a few specific genes inserts of contemporary microorganisms into biological products. The policy offers a more streamlined licensing pathway for certain classes of biotechnology-derived products, allowing a more rapid response to emerging diseases resulting from antigenic shift and drift.

9. Veterinary Diagnostics

Laboratory and diagnostic services are an essential component of the U.S. animal health infrastructure. The Veterinary Diagnostics line item provides partial funding for the National Veterinary Services Laboratories (NVSL), which is the only national reference and confirmatory laboratory for APHIS animal health programs. This line item also funds personnel associated with the National Animal Health Laboratory Network (NAHLN) and specific infrastructure support.

Diagnostic testing of surveillance samples improves the security of the nation's livestock. In FY 2013, APHIS handled more than 378,000 diagnostic tests and 47,000 accessions (one or more diagnostic samples received from the same submitter on the same day), and produced and provided more than 650 types of reagents. Because many of these tests and reagents are not available to customers from another source, stakeholders depend on APHIS to conduct or provide them. APHIS also validated new test methods and platforms, and provided training and assistance to U.S. and international laboratories upon request.

The Veterinary Diagnostics program also provides funding for foreign animal disease (FAD) investigations through NVSL's Foreign Animal Disease Diagnostic Laboratory and Diagnostic Virology Laboratory. In FY 2013, NVSL participated in 433 FAD investigations, received 7,661 classical swine fever surveillance submissions, and supported international capacity building activities in Brazil, the Dominican Republic, Guatemala, Indonesia, Kazakhstan, Kenya, Mexico, and Panama.

APHIS conducts proficiency testing of Federal, State, and university laboratories to ensure standardized, rapid diagnostic techniques are used, and to maintain the credibility of U.S. diagnostic test results in the international marketplace. In FY 2013, APHIS provided 31 types of proficiency panels to international, Federal, State, and private laboratories. To help other laboratories develop and validate diagnostic tests, APHIS made available the necessary controls and reference strains for approximately 200 diseases, including FADs. Cost recovery for some reagents and proficiency panels is supported through user fees. In FY 2013, the NAHLN conducted studies to validate tests used for identifying high-consequence emerging animal and/or zoonotic diseases. These studies provided data to determine how assays should be used, and how assays perform on U.S. animal populations that are negative for the disease. An assay is an investigative procedure for qualitatively assessing or quantitatively measuring the presence or amount of the functional activity of a target entity.

The NAHLN addresses the need for a comprehensive and fully coordinated surveillance and monitoring system for animal disease, as well as a nationwide laboratory network that integrates and interconnects Federal and State laboratory resources and uses standardized diagnostic protocols and procedures. This network coordinates diagnostic testing at Federal and State-sponsored laboratories, while NVSL remains the confirmatory laboratory. The NAHLN consists of 58 State and university laboratories in 41 States as well as 2 laboratories from NVSL. In addition, there are two laboratories from other Federal agencies whose primary mission is not domestic animal disease diagnostic work within the United States. These laboratories are the Food Analysis and Diagnostic Laboratory within the Department of Defense, and the U.S. Geological Survey National Wildlife Health Center within the Department of the Interior. The NAHLN collaborates with these diagnostic laboratories that serve other Federal agencies to provide additional testing capacity during an animal health event. These laboratories meet the same standards and receive the same training and proficiency testing as the veterinary diagnostic laboratories in the network in order to be prepared to offer surge capacity, if necessary. Further, the program provides training to Federal and State personnel. In FY 2013, APHIS helped train approximately 140 FAD diagnosticians, and provided training on multiple animal diseases at NVSL facilities.

To improve its standards and consistency, the NAHLN worked with the American Association of Veterinary Laboratory Diagnosticians to expand and improve their Quality Management System Training Programs. The curriculum included training on quality system requirements, the accreditation process, document control, internal auditing, and root cause analysis. APHIS provided this training to representatives from the NAHLN and other U.S. laboratories as well as representatives from Cambodia, Egypt, Iraq, Kazakhstan, Kenya, Korea, Laos, Mexico, Morocco, the Philippines, Russia, South Africa, Taiwan, Tanzania, Thailand, Vietnam, the West Indies, and Yemen.

10. Zoonotic Disease Management

The Zoonotic Disease Management (ZDM) program enhances State, national, and international collaborative efforts to promote healthy animals, people, and ecosystems. This integrated approach is commonly referred to as "One Health". Zoonoses, diseases that transfer from animals to people, are responsible for 60 percent of emerging infectious disease events in humans; 72 percent of these zoonoses originated in wildlife. These statistics support the value of a One Health approach. APHIS provides national leadership and expertise in addressing the animal health component of One Health by contributing animal health expertise, infrastructure, networks, and systems. By providing these capabilities, the Agency improves the collective response to One Health issues. APHIS

collaboratively develops strategies, policies and training to help animal health stakeholders effectively engage with public health counterparts, provide guidance, facilitate information exchange and enhance responses to One Health issues. By enhancing APHIS' efforts to address the animal health component of One Health, the ZDM program protects public health and directly benefits animal health and marketability.

Zoonotic Disease Engagement

In FY 2013, APHIS integrated One Health concepts into training courses and the Agency's framework for epidemiologic response. Additionally, APHIS continued coordinating with USDA's Agricultural Research Service (ARS), the Centers for Disease Control and Prevention (CDC), and State partners and industry to address influenza A H3N2v and other variant influenza infections. These coordinated surveillance, preparedness, and response activities resulted in the joint development of national measures to minimize influenza transmission at swine exhibitions. APHIS also collaborated with CDC, State partners, and industry to prevent human *Salmonella* infections associated with contact with live poultry from mail order hatcheries.

Antimicrobial Resistance

Also in FY 2013, the Food and Drug Administration (FDA), with support from APHIS, sponsored a series of public meetings to discuss challenges that may be encountered by livestock producers and veterinarians as FDA phases in proposed guidance on the use of medically important antimicrobials for growth promotion. In addition, APHIS performed antimicrobial resistance testing in organisms of public health importance (potential pathogens and commensals) from swine operations nationwide. Initial results from these operations should be available in early FY 2014. Also in FY 2013, APHIS continued to participate on a multi-agency USDA team to revise the USDA Plan to Address Antimicrobial Resistance.

Preharvest Food Safety (PHFS)

In a 2011 study, the Centers for Disease Control and Prevention estimated that foodborne diseases cause 48 million illnesses, 128,000 hospitalizations, and 3,000 deaths per year in the United States. PHFS includes on-farm interventions that can reduce the risk of foodborne diseases. APHIS works with stakeholders in a non-regulatory manner to identify risk factors and effective on-farm practices to enhance PHFS. APHIS' National Animal Health Monitoring System collects data about select potential foodborne pathogens and uses this data to provide benchmarks and identify trends. APHIS also works with FSIS to provide voluntary, on-farm consultation on PHFS.

Pandemic and Animal Disease Preparedness

Recent human outbreaks of avian influenza and Middle East Respiratory Syndrome caused by a coronavirus (MERS-CoV) highlight the challenges in the global response to emerging animal diseases with human pandemic potential. APHIS promotes an all-hazards approach to strengthening pandemic and animal disease preparedness, surveillance, and response. By using this approach rather than focusing on a specific disease, APHIS can be prepared for a variety of diseases, including emerging diseases. In the spring of 2013, APHIS coordinated the USDA response to an Influenza A(H7N9) outbreak in China among poultry and people. The Agency worked with CDC and the U.S. Agency for International Development, as well as our international partners at the World Organization for Animal Health, the Food and Agriculture Organization, and the World Health Organization to provide advice and support to reduce spread and protect U.S. interests. APHIS continues to support and coordinate with CDC to address influenza outbreaks, e.g., H5N1 and A(H7N9), as well as MERS-CoV. APHIS also provides leadership in the North American Plan for Animal and Pandemic Influenza, strengthening trilateral preparedness and response capabilities for human and animal health in Mexico, Canada and the United States. Key areas identified for collaboration and action include establishing cross sector working groups to develop guidelines and processes for epidemiologic and laboratory data sharing; and emergency and risk communications and joint exercises and training.

Selected Examples of Recent Progress - Plant Health:

1. Agricultural Quarantine Inspection

Through the Agricultural Quarantine Inspection (AQI) program, APHIS and the Department of Homeland Security's (DHS) Bureau of Customs and Border Protection (CBP) safeguard U.S. agricultural and natural resources from the introduction of invasive pests and diseases. To exclude foreign pests and diseases, APHIS assesses the risks associated with international trade and specific imported agricultural products and develops regulatory import policies to protect agricultural health. In addition, the Agency conducts off-shore risk reduction activities including pre-departure inspections of passenger baggage destined for the continental United States from Hawaii and Puerto Rico and foreign commodity pre-clearance programs; trains agricultural inspectors and detector dog teams to work at U.S. ports of entry; fumigates arriving containers and cargo; inspects and quarantines imported plant propagative materials; conducts trade compliance activities to prevent smuggling; and provides the scientific support necessary to carry out these activities and those carried out by CBP.

APHIS receives appropriated funding for pre-departure inspections of passengers and cargo traveling from Hawaii and Puerto Rico to the continental United States to prevent the introduction of non-native agricultural pests and diseases into the continental United States while maintaining the highest level of agricultural security. Because of the high volume of travelers from these islands to the continental United States, along with the risks associated with numerous fruits, vegetables, and animal products associated with these areas, APHIS inspects all baggage of passengers leaving these islands. When inspectors identify an item that poses a specific risk, they take immediate action to prevent the entry of materials that could harbor the pest or disease in question. This action could prevent significant damage to the country's agricultural industry and negate the need for costly control and eradication programs. APHIS also partners with industry groups and State and Commonwealth counterparts to facilitate the safe movement of cargo. In Hawaii, the State Department of Agriculture conducts nursery inspections and certifies nursery stock for shipment to the continental United States. In addition to the appropriated funding, APHIS collects AQI User Fees under the authority of the Food, Agriculture, Conservation, and Trade Act of 1990 to recover costs for services provided by APHIS and CBP associated with preclearance or the port-of-entry arrival of commercial vessels, trucks, loaded railroad cars, aircraft, and passengers entering the United States from a foreign destination.

Cooperative Program Management

APHIS works with CBP to protect America's agricultural resources and food supply by inspecting international passenger baggage, cargo, and conveyances. During FY 2013, APHIS and CBP's Joint Task Force worked to develop a strategic plan for AQI activities. Based on recommendations from a General Accountability Office audit, the draft strategic plan (still in review as of 11/4/2013) focuses on key priorities such as enhancing detection, identification, and interdiction capabilities at ports of entry; enhancing targeting and analysis of incoming shipments for agricultural purposes; and enhancing communication between the two Agencies. Toward these goals, APHIS has created a new position for an APHIS analyst at CBP's Commercial Targeting and Analysis Center. This collaboration will help the two Agencies track and close pathways for pest and disease introductions. To ensure the effectiveness of inspection policies, APHIS and CBP continue to conduct a quality assurance program, which includes port reviews. In FY 2013, APHIS and CBP conducted quality assurance reviews at six ports of entry and one follow-up review in Laredo, Texas. The program conducts follow-up reviews at ports of entry that have been selected from the previous year's reviews to verify the completion and implementation of tasks and recommendations issued to the port. In FY 2013, APHIS held 3 academies for CBP agriculture specialists, training 96 new officers. APHIS also held 14 sessions of basic agricultural threat training for first-line CBP officers, training 672 officers, and 3 sessions of agriculture fundamentals training for CBP import specialists, training 72 officers. APHIS and CBP are also beginning a new outreach effort to express carriers, and an analysis project to improve inspection and handling of express packages from foreign locations. The goal of the initiative is to reduce administrative requirements on express carriers while continuing to inspect high-risk packages and reduce the threat of invasive pest introductions. As part of the effort, APHIS and CBP toured several express courier hubs throughout the United States to evaluate current practices and identify potential changes.

Pre-Departure Inspections

APHIS inspected the baggage of approximately 13.2 million passengers before they left Hawaii and Puerto Rico and intercepted 262,821 prohibited items and 5,247 reportable pests (quarantine-significant pests that must be reported to Federal or State authorities) in FY 2013. APHIS evaluates the effectiveness of its pre-departure program by measuring the percentage of passengers destined for the continental United States from Hawaii and Puerto Rico that comply with agriculture quarantine regulations. In FY 2013, more than 98 percent of passengers were in compliance (calculated by determining how many passengers are carrying prohibited items through random sampling and comparing it to the actual number of prohibited items intercepted through inspections). To facilitate interstate trade between Hawaii and Puerto Rico and the continental United States, APHIS conducts commodity certification and inspection programs. In FY 2013, the program conducted 142,642 inspections of regulated agricultural commodities shipped from Hawaii and 10,408 inspections of regulated agricultural commodities shipped from Puerto Rico. In addition, the program oversaw or conducted 3,026 cargo treatments in Hawaii and 4,704 cargo treatments in Puerto Rico. APHIS continues to conduct methods development activities that expand the treatments available to allow additional fruits and vegetables to be shipped from these islands to the continental United States.

Port-of-Entry Inspections and Pest Interceptions

In FY 2013, more than 155 million passengers and pedestrians entered the United States by air, bus, ship, train, or on foot. CBP agriculture specialists inspected the baggage of approximately 23 million (nearly 15 percent) of these travelers, through manual inspection, x-ray technology, or detector dogs. Also in FY 2013, the program inspected 695,540 of the 91 million passenger vehicles entering the United States from Canada and Mexico. Inspectors also cleared approximately 38,000 ships and 1.38 million cargo, mail, and express carrier shipments, intercepting more than 111,000 pests. Of the travelers inspected, approximately 96.7 percent of international air passengers, 97.4 percent of southern border vehicles, and 92.1 percent of northern border vehicles were found to be in compliance with agriculture quarantine regulations.

Plant Germplasm Quarantine

APHIS' Plant Germplasm Quarantine Program (PGQP) is the largest plant quarantine program in the United States. This program provides quarantine services for importing plant cultivars and germplasm safely, to prevent foreign pathogens from entering our environment and agricultural production areas. In FY 2013, the PGQP released from quarantine 84 bamboo clones, 81 grass clones, 72 pome fruits, 82 potato clones, 12 potato true seed lots, 76 rice seed accessions, 1 gooseberry, 30 stone fruit clones, 332 stone fruit seedlings, 36 sugarcane, 14 sweet potatoes, and 9 woody ornamentals. New crops imported in FY 2013 include cassava and kiwis. These high-risk crops are prohibited entry into the United States in commercial quantities, but importers can bring in small quantities through an APHIS-approved plant quarantine program, like the one at the PGQP. The PGQP implemented new detection procedures for several pathogens, including Asian Prunus virus, plum bark necrosis stem pitting virus, *Xanthomonas albilineans* in sugarcane, potato leafroll virus, and sweet potato chlorotic stunt virus – East African strain. Evaluations are underway to use multiplex polymerase chain reaction testing for detection of potato potyviruses, sweet potato DNA viruses, and viruses and viroids of pome fruits. Multiplex testing allows scientists to test for multiple diseases at once, rather than running separate tests for each disease of concern. The PGQP's outreach efforts included a presentation to Agricultural Research Service (ARS) scientists at the National Arboretum, reports to various Crop Germplasm Committees, and tours of the program for foreign visitors from Bosnia, China, Israel, and South Africa, as well as for U.S. visitors from Ball Ornamentals, a retailer/distributor, and the Department of State. The program also discovered new pathogens during testing of bamboo, *Miscanthus*, potato, stone fruits, and sweet potatoes. When the program finds a new pathogen, APHIS collaborates with other scientists in ARS or universities to characterize it and publish information about it. These collaborations may result in improvements in the PGQP's testing protocols to enhance our ability to detect new pathogens.

Pre-Clearance Inspections

APHIS conducts commodity pre-clearance programs in 29 countries to minimize pest and disease risks outside the United States and allow perishable products to reach markets promptly. This number includes one new country, Italy, where exporters initiated a pre-clearance program for apples and pears.

APHIS works with the U.S. Department of Defense and the DHS to inspect military passenger baggage and equipment before it returns from overseas. This work is necessary to prevent the entry into the United States of foreign plant and animal pests and diseases in returning military cargo, equipment, and vehicles. In FY 2013, APHIS fulfilled this role by training and providing technical assistance visits to military personnel serving worldwide in 20 countries. Designated APHIS personnel delivered agricultural preclearance training and certification to military personnel, stateside and in forward deploy locations in the Middle East, Central Asia, Europe, and Africa. In FY 2013, APHIS trained more 2,400 personnel in the United States alone. During technical assistance visits of up to 30 days, APHIS agriculture advisors evaluated passenger and cargo preclearance operations to ensure compliance with APHIS requirements. These activities enabled the expansion of the military preclearance capacity needed to support the increasing number of returning military personnel, cargo, and equipment, resulting from the current military drawdown in Afghanistan.

Smuggling Interdiction and Trade Compliance (SITC)

Through the SITC program, APHIS officials analyze and identify potential smuggling pathways, conduct product traces, and coordinate with investigative organizations to increase compliance with APHIS' regulatory requirements. APHIS also notifies CBP about potential agricultural risks at the ports of entry. In FY 2013, APHIS made 2,473 seizures of prohibited agricultural items in commercial locations, such as food/grocery/ethnic markets, swap meets, and other retail outlets. Those seizures totaled 132,790 pounds of prohibited and/or restricted plants and plant products and meat and meat products valued at approximately \$771,929. Of these products, 2,626 pounds, worth \$93,294, were directly linked to 18 Agency recalls. Items seized through these recalls included animal and plant products such as decorative items containing noxious weed seeds and prohibited poultry products from countries where highly pathogenic avian influenza is present. In conjunction with CBP, APHIS conducted 16 port-of-entry Special Operations and found additional prohibited plants and plant products as well as various high-risk animal products. For example, at the Miami International Post Office, APHIS and CBP inspected 72 packages and found that 63 contained prohibited agricultural items, such as seeds and other high-risk material. Through other special operations, APHIS and CBP found prohibited chicken gizzards from China labeled as turmeric root, mislabeled sliced deer antlers, and beef products from France. These items are all capable of transmitted high-risk animal diseases or are protected by international conservation treaties. APHIS is continuing to enhance its ability to prevent smuggling and is working to refine the best use of SITC resources to target the highest-risk items.

Asian Gypsy Moth

APHIS supports the exclusion of Asian gypsy moth (AGM) through negotiations and support of offshore AGM ship inspection and certification from Far East Russia, Japan, Korea, and China. Due to an increase in AGM egg masses that CBP agriculture specialists intercepted on ships in 2012, APHIS, CBP, and the Canada Food Inspection Service conducted increased outreach to the maritime shipping trade throughout 2013. APHIS coordinated joint U.S./Canada technical visits to Japan, Korea, and China in early 2013 to address the risk to forest resources from shipping. As a result, although AGM ship inspections were still high in 2013, they were reduced by 25 percent from 2012 levels. APHIS, CBP, and the Canadian Food Inspection Agency are continuing discussions on strategies to enhance the exclusion effort in 2014.

Plant Inspection Stations

Importations of nursery stock and other propagative plant materials can serve as significant pathways for invasive pests and diseases. To reduce the risks associated with such imports, APHIS requires that certain imported plant materials enter the United States through plant inspection stations, which are located at ports of entry throughout the country at major international airports and seaports and at major crossings along the U.S.-Mexican border. Specialists at these stations inspect shipments to ensure that imported plants do not contain pests and diseases of regulatory significance. In addition, they enforce the regulations that apply to the import and export of plant species protected by the Endangered Species Act and the Convention on International Trade in Endangered Species of Wild Fauna and Flora. In 2013, inspectors cleared more than 22,000 imported shipments containing 1.3 billion plant units (cuttings, whole plants, or other propagative materials) and approximately 1,777,000 kilograms of seeds. Through these inspections, they intercepted more than 5,000 reportable pests. In addition, the stations conducted more than

900 treatments remediating more than 8 million plant units and almost 38,000 kilograms of seed. During FY 2013, APHIS also worked to develop a risk-based sampling method to improve inspection of imported plant material. The new protocol will maximize the effectiveness of inspections by incorporating statistically sound sampling for shipments based on the level of risk posed by the type and origin of the plant material. To help inspectors implement the new method, APHIS developed an on-line sampling tool that calculates the number of samples to inspect for each shipment. APHIS started using the new sampling method at four locations on October 1, 2013, and will review the data from these locations in FY 2014.

Risk Analysis and Scientific Support

APHIS' Plant Epidemiology and Risk Analysis Laboratory (PERAL) develops pest risk analyses and epidemiological approaches to pest exclusion. In 2013, PERAL personnel completed 211 risk analyses associated with imports, exports, invasive pest threats, and programmatic requirements. This work included 30 analyses to open, expand, or maintain export markets for U.S. producers. It also included evaluations of 53 new pests for potential risk to U.S. agriculture and 28 risk analyses for import requests from foreign countries. APHIS National Identification Services processed and identified 174,676 pests in FY 2013 (with 85,384 being reportable pests.)

Phytosanitary Export Certification

APHIS facilitates the export of agricultural shipments by tracking plant health import requirements for more than 200 countries, and provides certifications to U.S. exporters to help ensure that U.S. products meet other countries' requirements. More than 2,300 Authorized Certification Officials at the Federal, State, and county levels can access countries' certification requirements on-line and conduct inspections to issue phytosanitary certificates. These certificates facilitate the entry of commodities into foreign markets and represent approximately \$25 billion in trade annually. This program employs a web-based Phytosanitary Export Database, known as PExD. This database, which is free to exporters, enables them to research requirements and better prepare for shipping. In addition, this program uses a Phytosanitary Certificate Issuance and Tracking (PCIT) database, which allows exporters to apply for certificates, schedule inspections, and pay certification fees. PCIT also collects State and county cooperator fees in addition to the USDA fees for phytosanitary certificates. Participating States/Counties save up to 160 staff hours each month by allowing APHIS to handle the collection and remittance of the fees for certificates issued by the States/Counties on APHIS' behalf. Currently, 31 States and 22 counties use this feature. PCIT also enables APHIS to capture export application information, document inspection and certification information, print an original phytosanitary certificate on secure paper, and generate export reports. The Agency is continuing its effort with international counterparts to begin exchanging phytosanitary certificates electronically. The United States began accepting electronic phytosanitary certificates for some seed shipments in FY 2013. Pilot exchanges with Australia and New Zealand will begin in FY 2014. In FY 2013, APHIS, State, and county officials issued more than 605,000 Federal export certificates for agricultural shipments.

2. Cotton Pests

The Cotton Pests program works with States, the cotton industry, and Mexico to eradicate the boll weevil (BW) and pink bollworm (PBW) from all cotton-producing areas of the United States and northern Mexico. The BW has cost cotton growers approximately \$13 billion since it entered the United States in the late 19th century. APHIS began a BW eradication program in 1983. The PBW may be the most destructive pest of cotton worldwide. In the United States, although the volume of acreage planted with cotton varies from year to year, the PBW commonly causes cotton losses of 20 percent or more in affected areas. The PBW eradication program began in 1967. The Cotton Pests program also maintains preparedness capabilities to address other cotton pests that could enter the United States. APHIS provides national coordination, operational oversight, and technology development (such as sterile moth production for PBW eradication), while program partners have provided more than two-thirds of the funding for the BW eradication effort and most of the operational funds for PBW eradication. APHIS also provides technical advice on trapping and treatment protocols to its partners in Mexico for their eradication efforts.

The BW eradication effort involves mapping cotton fields, using pheromone traps to evaluate weevil presence, and applying pesticides. PBW eradication uses PBW-resistant cotton, mating disruption, and sterile moth releases. Once these pests are eradicated, the programs will conduct long-term surveillance to guard against re-infestation and to

take action if re-infestation occurs. After the BW and PBW are eradicated from an area, cotton growers rely far less on insecticides, thus reducing their production costs. Over the course of the eradication effort, the program has increased these growers' global competitiveness, primarily through reduced production costs and increasing yields. In the 2013 season, the industry produced approximately 13 million 480-pound bales worth approximately \$6 billion (National Agricultural Statistics Service).

To date, APHIS and cooperators have eradicated BW from 99.5 percent of the 16 million acres of U.S. cotton. Of the three remaining zones in the Texas BW program, the two zones outside of the Lower Rio Grande Valley (LRGV) were negative for BW in 2013. To target the last remaining zone (along the border with Mexico) where eradication efforts have been impacted by both security concerns that hamper operations and high winds that move BW populations around, APHIS partnered with an international technical committee to develop strategies to eradicate BW from the LRGV zone and neighboring Tamaulipas, Mexico. In the fall of 2012, producers in Tamaulipas increased late-season treatments and reduced late-season weevil populations. These treatments resulted in a significant reduction of boll weevil detections in the spring of 2013. While there was reduced cotton acreage planted in Tamaulipas in 2013, detections of boll weevil decreased by 92 percent. The LRGV also had a reduction in weevil catches of approximately 28 percent. APHIS and its State, industry, and international partners are continuing these intensive activities to target this last remaining BW zone in FY 2014.

The Cotton Pests program has eradicated the PBW from California, New Mexico, large areas of Arizona, and the El Paso region of Texas, representing 99.9 percent of infested cotton acreage. In addition, APHIS rears and distributes sterile insects to reduce PBW populations in Arizona and Mexico. The last native moths detected in the United States (and Mexicali and San Luis, Mexico) were detected in 2012. No native moths were reported in 2013 and the program is entering its first year of eradication confirmation in 2014. By eradicating these two devastating cotton pests, APHIS protects continued export opportunities for U.S. cotton growers and significantly lowers production costs. Through these activities, the program protects \$66 worth of cotton production per appropriated dollar spent.

3. Field Crop & Rangeland Ecosystems Pests

The Field Crop and Rangeland Ecosystem Pests (FCREP) program protects U.S. agricultural crops and rangelands from the establishment or spread of invasive or economically significant pests, facilitates safe international trade and domestic commerce, preserves economic opportunities for U.S. farmers, and fosters healthy ecosystems in rangelands and natural lands. To accomplish these goals, APHIS provides national coordination, threat assessment, and strategies to prevent pests and diseases such as Karnal bunt (KB) and witchweed from spreading and impacting export markets for U.S. farmers. The program also works to keep the imported fire ant (IFA) from spreading through interstate commerce and helps Western rangeland managers respond to cyclical outbreaks of grasshoppers and Mormon crickets. These programs help protect resources that small, rural communities depend on for income.

Through the FCREP program, APHIS cooperates with Federal, State, Tribal, and local agencies, organizations, and institutions to conduct survey and suppression activities in western States to reduce damage caused by grasshopper and Mormon cricket (GMC) outbreaks, protecting resources valued at more than \$8.7 billion (according to a 2012 Economic Analysis prepared by University of Wyoming through a cooperative agreement with APHIS).

Uncontrolled GMC infestations could cause significant economic losses for U.S. livestock producers by reducing animal food supply in rangeland and therefore forcing producers to buy supplemental feed or sell their livestock at reduced prices. Besides feeding on grass, they can also devastate cultivated crops such as alfalfa, wheat, barley, and corn. Infestations often cover vast acreage and landowners may need Federal support to control them. In FY 2013, APHIS conducted surveys in 16 States, and treated approximately 3,643 acres of rangeland, which protected rangeland forage and wildlife habitat on approximately 7,200 acres. APHIS treated the largest Mormon cricket outbreaks in Washington State, the largest grasshopper outbreaks in Arizona, and smaller outbreaks of grasshopper treated in Oregon and South Dakota. In Washington and Oregon, the program applied treatments on Federal and State lands. In South Dakota and Arizona, the program applied treatments on Tribal lands. Also in FY 2013, APHIS continued to implement predictive models to increase the efficiency of treatments. APHIS is continuing to refine the model by incorporating information on climatic conditions that favor or discourage outbreaks. These models allow for early-season treatments that use lower rates of insecticides to reduce immature pest populations instead of more expensive and stronger pesticides when the pests mature. The program also began using a new chemical treatment (Prevathon) that has reduced impacts on non-target species. In addition, the program helps land

managers by providing population information, helping to predict where GMC populations could develop into outbreaks and providing technical assistance to land managers about options for dealing with problem-level populations. By providing ongoing information and advice to land managers and conducting control treatments where necessary and possible, this program helps protect 664 million acres of rangeland across the western United States.

FCREP activities also prevented an estimated 10 additional States from becoming infested with IFA. This pest is a public nuisance and causes approximately \$6.3 billion in annual damage to homeowners, industry, and agricultural commodities such as corn and soybean (according to a 2006 Texas A&M University study). IFA infests more than 366 million acres in Puerto Rico and 14 States: Alabama, Arkansas, California, Florida, Georgia, Louisiana, Mississippi, New Mexico, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, and Virginia. Each of these States/territories is under Federal quarantine. The program provides treatments for land managers to help them remove IFA from their products and prevent the human-assisted spread of IFA on regulated articles. To do so, the program evaluates the efficacy of regulatory treatments for preventing IFA spread and works with States, industry, and other Federal agencies to develop insecticides and biological control agents. APHIS also provides technical assistance to States in preventing IFA detections in new areas from becoming established. For example, APHIS is working with Missouri officials to eradicate an isolated infestation in the town of Joplin. APHIS continues to look at new pathways through which IFA could spread and ways to mitigate the risks. Demand for hay, for example, continues to be strong around the country, and APHIS worked with the National Institute of Food and Agriculture to publicize ways to prevent the shipping of IFA infested hay. APHIS met the program's performance target of no IFA infestations outside of regulated areas that could be attributed to the movement of regulated articles infested with fire ants. APHIS expects to maintain this level of performance.

APHIS and cooperators also continued a biological control project using several species of phorid flies to target the ants. Since the spring of 2002, the program has conducted more than 140 releases involving four species of phorid flies, with several releases in each of the States/territory under Federal quarantine. The four fly species are established in the southeastern States, and two have spread throughout more than 65 percent of the regulated area. The program is continuing releases of one species for several years to supplement its current population. Reducing IFA populations will allow native ants to compete for resources, thus helping to restore ecological balance.

The FCREP program also addresses KB a fungal disease of wheat, first detected in the United States in 1996. Many U.S. trading partners will not accept U.S. wheat unless it is certified to originate from areas where KB is not known to occur. The KB program prevents the disease from entering the grain market system, spreading beyond the areas of Arizona where it is currently found, and directly impacting most other States. By keeping KB contained to a small area, the program indirectly protects more than 56 million acres of wheat production across the United States. USDA's Economic Research Service estimated in 2010 that, without the program's KB efforts, there would be a cumulative reduction of national net farm income of \$8 billion over the next eight years. In 2013, 37 wheat-producing States participated in the Karnal bunt national survey. More than 1,300 samples were submitted to the National Karnal Bunt Laboratory for processing, with no positive samples reported as of October 29, 2013. Based on this national survey, the program certifies wheat exports to be free of KB, assuring trading partners about the safety of U.S. wheat exports, retaining export markets, and facilitating wheat movement into domestic and international markets. Without the program, approximately \$7.5 billion worth of trade each year could be disrupted.

Another concern for the FCREP program is witchweed, a parasitic plant that can significantly damage corn, sorghum, and sugarcane. If witchweed were to spread throughout the Corn Belt, crop yields for corn and sorghum could decrease by 10 percent and trade in commodities from these areas could be negatively impacted. Since program activities began in 1957, APHIS and cooperators have successfully eradicated witchweed from 99 percent of the infested areas in North and South Carolina. These activities consist of treating infested acres, conducting post-eradication surveys, and addressing any new infestations. The program projects that 1,394 acres will be infested at the end of the 2013 growing season, a decrease of approximately 550 acres from FY 2012. In FY 2013, APHIS and cooperators conducted surveys on more than 70,000 acres and treated 3,354 acres. While the overall area infested with witchweed has decreased in North Carolina, APHIS detected five new fields in South Carolina, likely related to favorable weather conditions for the weed. APHIS will regulate these fields to prevent the spread of the pest and treat them with herbicides for several years. Once all visible signs of witchweed are removed, the program places the field in a "release category" for ten years because witchweed seeds can remain in the soil long after the plant has

been removed. If no additional witchweed plants are found in that field within those ten years, that field will be removed (or released) from the program. APHIS and cooperators in North Carolina are currently preparing to release more than 2,000 acres that have been monitored for 10 years with no witchweed detected. Efforts to contain and eradicate witchweed directly protect approximately 2,100 acres of corn worth \$1.47 million in the area immediately impacted (Purdue, 2012). But by preventing the spread of this damaging weed, the program indirectly protects more than 97 million acres of corn valued at \$77 billion each year (National Agricultural Statistics Service, 2012).

4. Pest Detection

The goal of the Pest Detection Program is to document the distribution of plant pests and diseases of Federal regulatory significance in the United States. This documented information serves as the basis of APHIS' regulatory efforts and pest management programs that preserve economic opportunities for farmers (i.e., interstate commerce and international trade) and safeguard United States agricultural and natural resources. The program works with Federal agencies, State departments of agriculture, Tribes, academic institutions, and industry partners in all 50 States and several U.S. Territories to conduct these program activities.

APHIS and its State cooperators carry out plant pest surveys through the Cooperative Agricultural Pest Survey (CAPS) Program. APHIS provides national coordination for the program and develops policies and procedures for commodity-based and resource-based surveys. These surveys enable APHIS and cooperators to target high-risk hosts and commodities, gather data about pests specific to a commodity, and provide accurate assessments of pest distribution, including pest-free areas. Early pest detection is important to avert economic and environmental damage; once a pest becomes established or spreads significantly, the mitigation costs can reach millions of dollars, in addition to lost farm revenues and damage to ecosystems. Additionally, while many entities are involved in protecting crops and resources, APHIS verifies that U.S. products do not pose risks to other countries. Pest surveys conducted through the program demonstrate absence of a pest, and are used in some cases to help address importing countries' phytosanitary requirements and retain access to many foreign markets.

In FY 2013, APHIS and cooperators conducted a total of 251 commodity- and taxon-based surveys in 50 States and 2 territories (with 119 surveys conducted by States and 132 by APHIS). The program targeted 95 high-risk pests of national concern for survey in corn, oak, pine, small grains, soybean, and nursery crop commodities, as well as exotic wood boring bark beetles and cyst nematodes, among others, representing 81 percent of the target pests suggested for survey in the 2013 CAPS Survey Guidelines. Including pests of State priority, the Program targeted 266 unique pests for survey in FY 2013, surpassing its performance target of 200. Surveys consisted of multiple pests for efficiency and economy of survey, with an average of six to seven pests per survey and four to five surveys per State. Along with surveys conducted through the Farm Bill Plant Pest and Disease Management and Disaster Prevention program, APHIS and cooperators added 151 additional commodity surveys and targeted 334 unique pests overall.

A total of 20 new species in the United States were detected and confirmed through Pest Detection surveys or otherwise reported to APHIS through entry in the National Agricultural Pest Information System database as new or re-introduced to the United States. Three of these species were not plant pests, resulting in 17 new plant pests confirmed nationally in FY 2013. All 17 new plant pests were significant and listed as reportable/actionable and as quarantine pests where action would be taken if detected on conveyance at a port of entry. Examples include *Xanthomonas citri* pv. *mangiferaeindicae* (causal pathogen of bacterial black spot of mango) in Hawaii, *Trichoderus campestris* (Velvet longhorned beetle) in Utah, *Candidatus Liberibacter americanus* (a second species causing Citrus greening) in Texas, Cucumber green mottle mosaic virus in California, *Halotydeus bakerae* (Redlegged mite) in Florida, and *Chrysopogon aciculatus* (a Federal noxious weed) in Florida. The program's target for FY 2013 was to detect 80 percent of the significant pest introductions before they spread from the area of original colonization and caused significant economic or environmental damage, and the program actually detected 90 percent. However, none of these were high-risk pests of national concern specifically targeted for survey through the two programs; in effect, demonstrating freedom from these high-risk pests nationally.

5. Plant Protection Methods Development

The goal of the Plant Protection Methods Development (PPMD) Program is to develop scientifically viable and practical tools for exotic plant pest exclusion, detection, and management. These tools preserve economic opportunities for farmers and industries that engage in interstate commerce and international trade, and safeguard U.S. agricultural and natural resources from invasive plant pests. The program plays an essential role in APHIS' efforts to protect agriculture and natural resources from invasive plant pests and to support trade by developing tools to enable or improve the detection of exotic pests in survey programs; developing molecular diagnostic tests and identification tools for pest identification in support of domestic programs and imports of plants for planting; developing integrated pest management methods, including biological control, to eradicate or manage invasive pests; conducting pest risk analysis to address phytosanitary requirements for imports, and support for exports of U.S. agricultural products; and developing phytosanitary commodity treatments to support interstate and international trade. The program also develops and implements biological control technologies that allow natural enemies to be used alone or in combination with other control tactics to effectively mitigate the impacts of introduced, invasive insect pests, weeds, and plant pathogens, while minimizing impacts to the environment.

The PPMD program aims to develop new, or improve existing, tools each year to enhance APHIS' safeguarding capabilities. The program reached its FY 2013 annual performance target by developing or improving at least four quarantine treatments for commodities of trade. These treatments included validating ionized radiation (radio and microwave frequencies) treatment in logs—an alternative to the use of methyl bromide—for addressing insects, termites, rodents, weeds, nematodes, and soil-borne disease. The program also validated or developed cold treatment or fumigation schedules for pests such as peach fruit fly, oriental fruit fly in peppers, Mediterranean fruit fly in dates, thousand canker and ambrosia beetles in walnut wood, and flat mite, which facilitated domestic and international trade. APHIS also continued to establish new and support existing irradiation treatment programs, including programs in Spain and Mexico.

The PPMD program continues to design, develop, and deliver digital, media-rich, identification tools for APHIS to support trade and domestic, port, and offshore pest identification responsibilities. These tools are internet-accessible and provide users with matrix-based keys, image galleries, fact sheet collections, and other support aids valuable for identifying pests, diseases, and weeds of interest to APHIS and its partners. In FY 2013, the program released three tools: 1) *Antkey: Identification tool for invasive ants*; 2) *Hispines of the World* (a group of insects that includes economically significant pests as well as species that have been used as biological control agents); and 3) *Diabrotica ID: Identification of Diabrotica species* (another group of insects that includes serious pests of agricultural crops). The program also updated several other resources, including a guide to mites and screening tools for citrus pests and diseases. The program added more than 9,000 images to an application that allows APHIS to share its digital imagery with partners and enhanced its web-based interface for the creation and delivery of pest datasheets and commodity manuals. The web-based site will significantly enhance and improve APHIS's diagnostic capabilities and maximize the use of high-resolution, vetted digital image resources generated within APHIS as well as by scientific experts from other institutions.

The PPMD program harnesses risk mapping to create pest risk maps that enable them to make informed decisions on management of exotic plant pests. In FY 2013, the risk mapping program utilized the cooperative North Carolina State University/APHIS Plant Pest Forecasting System (NAPPFAS^T) and Geographic Information System (GIS) software to update and create new pest risk maps for 12 target pests in the Cooperative Agricultural Pest Survey program and other stakeholders. NAPPFAS^T is a web-based system that uses biological models and geo-referenced weather data to create maps, while GIS software allows the user to combine, display, and analyze many types of spatial data such as host data and the NAPPFAS^T maps. North Carolina State University is developing and validating a new model, the Generic Pest Forecast System, that is expected to improve on the existing models available in NAPPFAS^T by incorporating population growth.

APHIS also maintains its own quarantine and/or rearing facilities for biological control agents in Arizona, California, Colorado, Massachusetts, Michigan, Texas and Guatemala. In FY 2013, APHIS partnered with State departments of agriculture, USDA's Agricultural Research Service, the U.S. Fish and Wildlife Service, universities in 28 States and territories, and two Native American Tribes to evaluate and establish biological control agents for invasive plants, pests and diseases. Some key program targets included Asian citrus psyllid, brown marmorated

stink bug, emerald ash borer, cactus moth, Megacopta kudzu bug, hemlock woolly adelgid, olive fruit fly, mile-a-minute-weed, Dalmatian toadflax and Russian knapweed.

In FY 2013, the program met its performance measure target of 76 for the cumulative number of biological control projects that are developed, implemented, or transferred to States and other stakeholders. The program also met its performance measure target of 23 for the cumulative number of released biological control agents that have become established and sustainable, with the addition of the parasitoid *Psytallia lounsburyi* for olive fruit fly in California. Selected 2013 projects are highlighted below:

Olive Fruit Fly

The olive fruit fly is a major pest of olives and is established in agricultural production areas of California. In FY 2013, APHIS initiated a collaborative effort with the California Department of Food and Agriculture and the European Biological Control Laboratory to mass rear *Psytallia lounsburyi*, a parasitoid of olive fruit fly, and ship to California. The effort includes field release of this parasitoid at new locations in California and monitoring to determine establishment and impact on olive fly populations.

Air Potato

In FY 2013, APHIS continued collaborative efforts with Florida to mass-rear and release biological control agents (*Lilioceris cheni*) against the invasive plant air potato (*Dioscorea bulbifera*). Air potato is altering plant communities by displacing native species, changing community structures/functions, and crossbreeding with related native plants. Both larvae and adults of *L. cheni* are voracious feeders of the air potato plant consuming both leaf tissue and bulbils. Consumption of bulbils, known as "air potatoes," is important because it is the primary means of spread by *D. bulbifera*. The program has released 6,480 beetles at 14 sites in 10 counties in Florida. Sites that received beetles in 2012 have seen the greatest impact achieving up to 100 percent control in the immediate beetle release area. By the end of May 2013, beetles had dispersed up to several hundred meters from their initial release site, while still maintaining high populations within the release area.

6. Specialty Crop Pests

The goal of the Specialty Crop Pests (SCP) Program is to protect U.S. fruits and vegetables, tree nuts, horticulture, and nursery crops from adverse impacts associated with invasive pests, such as crop damage or threats to international trade and interstate commerce. APHIS works with State, Tribal, university, and industry partners to develop and implement practices, policies, and regulations that prevent or mitigate impacts for invasive pests of Federal regulatory significance. These activities include verifying pest distribution, identifying and mitigating risk pathways to prevent long distance spread of the pests, developing and implementing diagnostic tools and pest mitigation strategies, and communicating with the public to gain support for program strategies. These efforts promote the ability of U.S. farmers to export their products, prevent damage to specialty crop production (helping to ensure the availability of fresh fruits and vegetables), and protect natural resources, including forests and residential landscapes. Among the pests and diseases the program currently addresses are the glassy-winged sharpshooter (GWSS), pale cyst nematode, a variety of citrus diseases, exotic fruit flies, the light brown apple moth (LBAM) and the European grapevine moth (EGVM). Overall, the program directly protects nearly 1.6 million acres of specialty crop production worth approximately \$11.5 billion each year by containing and controlling pests and diseases of concern. The program indirectly protects an additional 2.7 million acres of specialty crop production worth \$15 billion by preventing the spread of these damaging pests and diseases to new areas. Without the (SCP) program, U.S. trading partners might not accept a variety of U.S. fruits and vegetables. The value of trade in specialty crops that could potentially be disrupted each year is \$7.2 billion (according to an internal APHIS report using National Agricultural Statistics Service (NASS) data). For every dollar spent on the SCP program, APHIS protects production worth \$187.

Grapes

The SCP program targets several devastating pests and diseases that could affect grape production and impact export markets, including GWSS and EGVM. Thirteen States produce grapes commercially, with California accounting

for more than 80 percent of the total acres in production (960,200 in FY 2011 according to NASS). In FY 2013, APHIS and the California Department of Food and Agriculture (CDFA), along with industry partners, continued the successful effort to eradicate EGVM. As a result of no new EGVM detections during 2 years of surveillance, APHIS removed four counties from the quarantined area, leaving only Napa County and portions of Solano and Sonoma counties (in proximity to EGVM finds in Napa) under quarantine. The removal of these counties (Nevada, Santa Clara, Santa Cruz, and most of Sonoma) from the quarantined area lifted export restrictions on both table grapes and stone fruit produced in the area and saves producers an estimated \$10 million each year in quarantine-related expenses. APHIS and program partners detected only 40 moths in FY 2013, compared to 78 the previous year (and down from more than 10,000 in 2009, the first year after EGVM was first detected). In FY 2014, APHIS and CDFA will continue intensive survey and control activities in Napa and survey activities in previously affected areas to ensure that EGVM is not present. APHIS also continued the successful, cooperative GWSS program designed to suppress populations of this pest in grapes, citrus, and nursery stock. GWSS is a vector for Pierce's disease (a serious threat to grapevines), and the program's suppression and regulatory activities prevent the spread of the disease from citrus and nursery stock production areas to vineyards. In FY 2013, the program conducted surveys for the pest in 49 California counties and continued area-wide suppression activities in affected agricultural production areas of five California counties. With citrus growers' voluntary suppression treatments, the program covered more than 19,000 acres. Of the 42,994 shipments of nursery stock from infested areas, only five were rejected due to GWSS. Together, the EGVM and GWSS programs directly protect grape production worth \$2.5 billion each year in the impacted areas and protect another \$1.78 billion worth of grape production through preventing the spread of the pests to new areas (figures derived from internal APHIS report using NASS data).

Citrus

Citrus fruits are high-value specialty crops and a nutritious food for consumers across the world. In FY 2012, the United States was the world's third largest producer of citrus and among the top five citrus exporters (Global Trade Atlas Database). APHIS supports the continued ability of the citrus industry to produce, harvest, process, and ship citrus fruits and nursery stock despite the presence of diseases such as citrus canker, citrus greening, and citrus blackspot. Working closely with the citrus industry and State departments of agriculture in FY 2013, APHIS developed flexible regulatory protocols for areas impacted by citrus greening in Texas and areas impacted by Asian citrus psyllid (ACP), the vector of citrus greening, in California. These changes, such as allowing citrus to move to packing houses outside of quarantined areas if certain conditions are met, have resulted in reduced regulatory burdens on citrus producers impacted by citrus greening and ACP while continuing to minimize the risk of pest and disease spread. In FY 2013, APHIS also began piloting a biological control program targeting ACP. This program, which employs a predatory wasp against ACP, will augment current management methods, especially in residential areas in California, Arizona, and Texas, where use of chemical pesticides is not desirable. APHIS also continued to support area-wide management of the ACP in Florida by providing survey data every 3 weeks to the growers participating in Citrus Health Management Areas (CHMAs). Citrus growers participating in CHMAs (managed by Florida Department of Agriculture and Consumer Services) coordinate the applications of pesticides to suppress ACP populations in commercial citrus groves. To date, growers have formed 48 CHMAs in Florida, representing 486,000 acres or nearly 93 percent of the State's 524,426 total citrus acres in production. ACP counts are significantly lower when ACP management is coordinated. APHIS and cooperators are initiating the same approach to ACP management in California and Texas. APHIS and the CDFA are continuing to evaluate survey results related to the detection of sweet orange scab in California. Although the disease has been confirmed in three California counties so far, APHIS packing house protocols will allow the shipping of asymptomatic fruit (which is not a pathway for the disease) from these areas. These citrus health activities directly protect citrus production on more than 800,000 acres in the United States worth \$3.4 billion. Without APHIS' activities, approximately \$1 billion of citrus exports could be at risk each year (NASS 2012 Citrus Fruit Summary).

Tree Fruit and Nursery Stock

APHIS protects a wide variety of specialty crops (especially tree fruit and citrus) through maintaining a barrier against the spread of the Mediterranean fruit fly (Medfly) northward from Central America. Medfly is one of the most destructive agricultural pests in the world, attacking more than 300 cultivated and wild fruits. APHIS and cooperators produced 1.1 billion sterile Medflies per week in FY 2013 to maintain the barrier in Mexico and Guatemala and to release on a preventive basis in high-risk areas of California and Florida. APHIS and cooperators

also worked to eradicate a Mexican fruit fly (Mexfly) outbreak in the Lower Rio Grande Valley, along both sides of the U.S.-Mexico border. APHIS increased sterile Mexfly production from 130 million flies per week in FY 2012 to more than 140 million flies per week in FY 2013. Eradicating Mexfly from this area protects citrus, mango, and avocado production and exports. Additionally, in FY 2013, APHIS and CDFA eradicated a Medfly outbreak in San Bernardino County, allowing for continued harvest and shipment of agricultural products out of the county.

In FY 2013, APHIS and cooperators in New York confirmed that plum pox virus (PPV), a disease that affects stone fruit, has been eradicated from two of three affected counties in the State. Based on 3 years of negative survey results, APHIS lifted quarantine regulations on Orleans and Wayne Counties. More than 24,000 acres will now be reopened to the production of stone fruit in the two counties. APHIS and the New York State Department of Agriculture and Markets will continue surveys in Niagara County, where the last PPV detection occurred in 2011. APHIS continually reviews its program protocols to reduce regulatory requirements where possible while continuing to mitigate pest and disease risks. In FY 2013, APHIS, in partnership with the State of California and industry, evaluated and exempted 15 fruit and vegetable commodities such as strawberries and apples from interstate shipping requirements related to the light brown apple moth. APHIS is also streamlining the regulatory framework for hosts (particularly nursery stock) of *Phytophthora ramorum*, which causes sudden oak death and can affect a variety of forest trees. APHIS and State efforts have kept the disease from impacting natural resources, outside of small areas in Oregon. In FY 2013, APHIS de-regulated more than 1,500 nurseries in California, Oregon, and Washington based on a reassessment of how the disease is most likely to be transmitted. These lower-risk nurseries will now be able to ship products more easily, and APHIS and State inspectors will focus on the highest-risk nurseries to prevent the disease from spreading through nursery stock shipments and sales.

Through all of these activities, APHIS directly protects nursery stock production worth approximately \$4.3 billion (2007 Census of Agriculture) and tree fruit worth \$1.1 billion (NASS 2011 Summary of Non-Citrus Tree Fruits). Through keeping pests and diseases like PPV and light brown apple moth from spreading to new areas, the program indirectly protects more than \$9 billion in fruit and nursery stock production (combined figures from 2007 Census of Agriculture and NASS 2011 Summary of Non-Citrus Tree Fruits).

Potatoes

APHIS addresses two major potato pests, the pale cyst nematode (PCN) in Idaho and the golden nematode in New York. APHIS and cooperators have confined each to a relatively small area, and continued survey and regulatory efforts protect export markets for U.S. potatoes from 36 States. In FY 2013, APHIS tested more than 65,000 soil samples in Idaho for the PCN eradication effort and approximately 5,000 for the nationwide detection survey. PCN has not been detected outside of Idaho, but APHIS detected four new infested fields in Idaho in FY 2013, bringing the total number of infested fields to 21. Fumigations of infested fields in Idaho have reduced PCN populations by 99 percent since the pest was first detected in 2006. Eight fields have completed the treatment cycle, and multiple laboratory tests indicate that the treatment protocol is successful at eliminating PCN from the soil. Producers will now be able to plant potatoes in these fields, and APHIS and cooperators will continue monitoring them for several additional years to ensure PCN is not present. APHIS and New York cooperators also surveyed 1,262 acres for golden nematode and conducted 881 regulatory treatments to ensure that equipment moving out of the affected area does not pose a risk for spreading the nematode. Together, these efforts directly protect potato production worth \$204 million in and around impacted areas and allow 222 businesses to keep operating through compliance agreements that minimize the risk of pest spread. These programs indirectly protect one million acres of potato production nationwide worth \$3.74 billion (Economic Research Service, Vegetable and Pulse Outlook 2012). Without these programs in place, trading partners might not accept U.S. potatoes and approximately \$139 million in trade (U.S. Potato Board, 2010) could be disrupted each year.

7. Tree & Wood Pests

The Tree and Wood Pests (TWP) program protects forests, private working lands, and natural resources from the Asian longhorned beetle (ALB), emerald ash borer (EAB), and gypsy moth (GM). Numerous native hardwood tree species that are common throughout the United States are vulnerable to these pests. APHIS cooperates with Federal, State, Tribal, and local agencies, organizations, and institutions to conduct survey, regulatory, control, and outreach activities in 48 States to manage and, in some cases, eradicate these pests. Conserving forests enhances the

economic vitality of rural communities by supporting forest-related industries, recreation and tourism, and the overall livability of communities. The value of forest products and ecosystem services protected by APHIS per program dollar spent is approximately \$21,000. In addition, trees in residential areas lower cooling bills, filter pollutants from the air, decrease runoff, and improve residents' quality of life. Annually, forest pests could cost local governments up to \$1.7 billion due to tree damage and removal, and \$830 million in lost residential property values according to a 2011 study conducted through the National Center for Ecological Analysis and Synthesis Working Group. Without Federal funding, forest pests would spread more rapidly throughout the United States, and responding to newly introduced pests would become increasingly difficult.

The ALB threatens forest resources nationwide, as roughly 30 percent of U.S. trees are potential ALB hosts. The program's ALB eradication activities prevent multi-billion dollar losses to the maple syrup, timber, tree nursery, trade, and tourism industries. The annual contribution of forest-based manufacturing and forest-related tourism and recreation to the economies of Ohio, New York, and New England is approximately \$35 billion. ALB was first detected in Brooklyn, New York, in August 1996, and was later found in other areas of New York, Illinois, New Jersey, Massachusetts, and Ohio. The program has successfully eradicated ALB from Chicago, Illinois; Islip, New York; and Jersey City, New Jersey. In FY 2013, APHIS successfully eradicated ALB from the counties of Middlesex and Union in New Jersey and Staten Island and Manhattan in New York. The program continues to conduct final surveys in Eastern Queens and Long Island, New York, and in Norfolk and Suffolk counties in and around Boston, Massachusetts. APHIS and cooperators are continuing to delimit the infestations and remove host trees in infested areas in Ohio; Worcester, Massachusetts; and a recently discovered infestation in Long Island, New York. APHIS provides ongoing support to evaluate new methods and protocols to combat regulated pests and tailors project responses to site-specific conditions, resulting in a more efficient program. In FY 2013, the program worked to examine new detection technologies (such as traps and detector dogs), the impact of beetle biology and the time elapsed between surveys on survey effectiveness, and the impact of extending the timeframe for the application of preventive treatments. The program expects the infestation in and around Worcester, Massachusetts, to be delimited by FY 2015. APHIS aims to declare ALB eradicated from Norfolk and Suffolk Counties in and around Boston, Massachusetts by the middle of FY 2014.

APHIS measures performance by tracking progress toward eradication. The program met its targets for FY 2013 and has completed 100 percent of the New Jersey program, 74 percent of the New York program, 8 percent of the Massachusetts program, and 1 percent of the Ohio program. Because of required treatment cycles, programs only show improvement in this indicator after an area has been treated for approximately three years. The Ohio program is still in the early stages and will not likely show notable progress with this measure until 2014.

Another forest pest of concern for the program is the EAB, which was first detected in Michigan in 2002 and has since spread into 21 additional States, an increase of 4 since the end of FY 2012. Even though the pest was detected in these four States in FY 2013, it had likely been introduced into those States years earlier. The detections resulted from the program's use of a new risk-based model to determine the best places to focus their survey and trapping efforts. APHIS works with Federal, State, and local agencies and stakeholder groups to mitigate the human-assisted and natural spread of the pest and is continuing development of a biological control initiative designed to effectively manage EAB populations. In addition, APHIS will continue with regulatory enforcement at the leading edge of the infested region, outreach activities and national coordination with impacted States.

The biological control initiative provides a promising strategy using three parasitic wasps for long-term EAB management. In FY 2013, the program conducted trial releases of the wasps in 17 states: Connecticut, Illinois, Indiana, Kentucky, Maryland, Massachusetts, Michigan, Minnesota, Missouri, New York, North Carolina, Ohio, Pennsylvania, Tennessee, Virginia, West Virginia and Wisconsin. Current trial releases are focused on assessing the impacts of the wasps on EAB populations and tree health at and near release sites. An initial assessment of these impacts is expected to take several more years. In FY 2014, APHIS plans to release the biological control agents in all States that request them. The program released a total of 498,000 parasitic wasps in 2013.

The newly adopted regulatory framework, which focuses on the leading edge of the infestation and contiguous quarantine areas, maximizes the efficient use of resources, while minimizing impacts on regulated businesses in quarantined areas. Based on the detection of infestations in unregulated areas of previously affected States, APHIS expanded the quarantine area to approximately 374,000 square miles. To prevent further artificial spread, the

program regulates EAB host materials such as logs, firewood, and nursery stock. In 2013, APHIS maintained approximately 1,000 compliance agreements with businesses that handle EAB host materials. These agreements enable the program to regulate the treatment and movement of these host materials from quarantined areas.

In 2012, the EAB generally infested area grew by 9 percent, exceeding the projected growth estimated at 5 percent. In addition, more detections outside of regulated areas were recorded in 2013 than 2012; there were a total of 32 detections in 2013, up from 19 in 2012. These results were likely due to improvements in the survey component of the program, including availability of improved detection tools, a sophisticated risk assessment-based method of developing each year's survey design in collaboration with the U.S. Forest Service (FS) and increased public awareness of EAB symptoms and reporting procedures for suspect trees. In addition, APHIS and the FS have developed a computer based survey design tool based on the same risk assessment that State and local agencies can use to implement EAB surveys. This tool will allow local surveys to integrate with APHIS survey work to provide a better indication of where EAB is established.

European gypsy moth (EGM) is a destructive pest to some of North America's most beautiful and popular deciduous trees, including maples, oaks, and elms. This pest is established in all or parts of 19 northeastern, mid-Atlantic, and Midwestern States, as well as the District of Columbia. APHIS and State cooperators conduct regulatory activities in the quarantine area to prevent the human-assisted spread of the pest and the establishment of gypsy moth populations in non-quarantine areas. These efforts include inspection, treatment, and certification of regulated articles for movement from quarantine to non-quarantine (non-infested) areas. Compliance agreements are issued and public outreach is conducted to ensure that businesses and residents in infested areas comply with regulations to prevent long-distance spread of the pest. The EGM also spreads naturally into areas bordering the quarantined zone. APHIS monitors the transition zone along the 1,200 mile-long border of the quarantine area to ensure that newly infested areas are added to the quarantined zone and regulated effectively. Working with the FS and the EGM Slow-the-Spread Foundation, APHIS and cooperators have greatly slowed the spread of EGM and eradicated isolated populations, keeping this pest from becoming a larger issue. In 2013, APHIS and State cooperators continued to conduct EGM surveys to detect, delimit, and eradicate any isolated populations. During the year, the program added six new counties to the quarantine area (McDowell, Mercer, Raleigh, Summers, and Wyoming Counties in West Virginia and Tazewell County in Virginia).

Asian Gypsy Moth (AGM) is an invasive threat to North American urban and natural forests because of its broad host range, demonstrated damage potential, and its ability to compromise an effective management system that has taken nearly 100 years of research to assemble against EGM. In September 2013, a single AGM was found in Oklahoma. APHIS aims to eradicate any developing AGM population at the first opportunity, which, based on the moth's biology, normally begins the following season. A review of the trapping data and the area surrounding the find is underway to determine the appropriate response.

Selected Examples of Recent Progress – Wildlife Services:

1. Wildlife Damage Management

APHIS Wildlife Services (WS) provides the only dedicated Federal leadership to protect agriculture, human health and safety, property, and natural resources from disease and damage caused by wildlife. Cooperator participation and support is critical to the program's success. To accomplish these goals, APHIS works with Federal and State agencies, Tribes, county and municipal governments, private homeowners, farmers, ranchers, and other property owners.

Agriculture

According to the National Agricultural Statistics Service surveys published in 2010 and 2011, predators kill more than \$137 million worth of livestock each year. APHIS prevents and reduces livestock predation through education, technical assistance to producers, and operational management programs. The majority of wildlife damage management (WDM) predation management programs are supported by a combination of appropriated and cooperator-provided funds.

In FY 2013, APHIS personnel assisted more than 14,000 livestock producers in the western United States. APHIS helped protect approximately 4 million sheep and lambs, 9.1 million cattle and calves, and 502,000 goats from predation. The Agency estimates the value of predation losses prevented by APHIS to be \$150 million. In New Mexico, APHIS protected more than 370,000 head of cattle, sheep, and goats valued at more than \$296 million. APHIS conducted more than 50 outreach and educational programs to instruct and inform citizens on livestock protection issues and damage management techniques. APHIS estimates its efforts, through WDM, helped save more than \$1 million worth of livestock from predation in New Mexico during FY 2013. In FY 2013, APHIS protected more than \$21 million worth of livestock from predation by coyotes, red fox, and black vultures in West Virginia alone.

In FY 2013, APHIS personnel worked with State wildlife agencies, the U.S. Fish and Wildlife Service, and tribes to conduct wolf damage management programs and to capture and mark wolves for research and population monitoring purposes. In Michigan, Minnesota, and Wisconsin, the program responded to 338 complaints regarding wolves and verified 165 incidents of wolf damage to property, livestock, pets, and humans. In FY 2013, APHIS responded to 129 reported wolf depredations on livestock incidents in Montana. APHIS conducted detailed investigations and determined that wolves were responsible for livestock deaths in approximately 50 percent of the cases reported to include 5 adult cattle, 61 calves, 23 adult sheep, 12 lambs, 1 adult goat, and 2 guard dogs. In response to these depredations, APHIS removed 78 wolves. APHIS also assisted Montana Fish, Wildlife and Parks in monitoring the wolf population by placing radio collars on 9 wolves. In FY 2013, APHIS initiated research on the use of specific breeds of livestock protection dogs from Europe to evaluate their effectiveness in reducing predation from wolves and grizzlies.

APHIS wildlife disease biologists provided technical assistance, conducted surveillance, and maintained control of more than 60 wildlife diseases, pathogens, and syndromes. Internationally, the National Wildlife Disease Program serves as an associate on the Food and Agriculture Organization's Scientific Task Force on Wildlife Diseases, worked with a U.S. Army, Medical Research Unit in Kenya on zoonotic diseases, assisted the Defense Threats Reduction Agency on emerging diseases including African swine fever in Ukraine, implemented a WS Memorandum of Understanding with the Chinese Academy of Sciences on wildlife disease surveillance, and collaborated with the USDA Foreign Agriculture Service, Swedish University of Agricultural Sciences, and Colorado State University on emerging One Health issues in Africa, Europe, Indonesia, and Southeast Asia.

Human Health and Safety

APHIS is the lead Federal agency for conducting oral rabies vaccination (ORV) campaigns to protect public health by working to eliminate and prevent the spread of rabies in wildlife. In FY 2013, APHIS and cooperators distributed more than 6.8 million ORV baits in 15 States as a continuation of the strategic distribution of more than 130 million baits since the program began in 1997. These programs have led to the elimination of canine rabies in coyotes, resulting in the United States being declared canine rabies free in 2007; the near elimination of gray fox rabies from Texas; and containment of raccoon rabies in the eastern United States. During FY 2011-FY 2013, WS' National Rabies Management program successfully conducted three oral rabies vaccine (ONRAB) field trials (one trial each in West Virginia and Ohio, and a single trial in contiguous areas of New York, Vermont and New Hampshire) to increase the rabies immunity of the raccoon population in five States. Promising results from 2011-2012 showed a positive response to ORV including at least a 2-fold increase in rabies immunity in post ONRAB raccoon samples compared to pre-ONRAB samples in New Hampshire, Vermont, and New York. In FY 2013, the program expanded the field trials in New York to include an area along the Saint Lawrence River. The program is currently conducting post-bait sampling and data analysis for FY 2013 and expects results by early 2014.

APHIS' Aviation Training and Operations Center (ATOC) provides high-quality training, standardization, and, most importantly, guidance for safety. On average, APHIS trains approximately 34 Agency pilots and 10 to 15 contractor pilots per year. During the last 2 to 3 years, the ATOC has made improvements involving employee safety related to aircraft maintenance oversight, aviation safety communication, aircraft avionics, aircraft tracking, and personal protection equipment (i.e. winter weather clothing, aircraft helmets). Safety oversight and training requirements are expected to increase in FY 2014 and in future years.

Wildlife strikes cost commercial aviation more than \$900 million annually in the United States, and approximately \$1.2 billion worldwide. Since 1988, when APHIS started collecting data, bird and other wildlife strikes have destroyed 94 civil and military aircraft in the United States, killing 55 people. In FY 2013, APHIS provided assistance to nearly 800 airports and airbases nationwide to mitigate wildlife hazards pursuant to funded agreements with program recipients. This effort involves management programs at more than 100 domestic and international Department of Defense airbases that reduced wildlife strikes to military aircraft. APHIS cooperators fund these efforts.

Property

In FY 2013, APHIS conducted beaver damage management activities in 39 States, including four State/region-wide programs supported by cooperator-provided funds. In North Carolina, the Agency conducted more than 1,200 projects, reducing damage by an estimated \$9.9 million, and saving nearly \$6 for every dollar spent on the program. In Mississippi, every dollar spent on APHIS' beaver management program saved between \$1 and \$38 in reduced timber damage. In South Carolina, the Agency conducted beaver management projects on 1,158 properties, reducing damage by an estimated \$2.8 million. In Wisconsin, APHIS worked with the State, tribes, and the U.S. Forest Service to protect and restore more than 1,500 miles of trout streams and economically and culturally important wild rice beds, and to protect roads, bridges, impoundments, and railroads. Beaver damage management in Tennessee protected more than \$12.5 million in resources including; timber, roads and bridges, crops and pastures, drainage control structures and utilities. APHIS conducts statewide cooperatively-funded management programs in several other States across the United States.

Natural Resources

Non-native, invasive animals can devastate ecosystems. The APHIS WDM program focuses on eliminating damage from brown treesnakes (BTS), feral swine, nutria, and other invasive species.

BTS have eliminated most species of native birds, lizards, and bats in Guam, and cause economic losses and public safety problems due to power outages. In FY 2013, APHIS continued leading a multi-agency partnership to prevent BTS movement from Guam to other Pacific Islands, Hawaii, and the continental United States pursuant to funded agreements with other Federal departments and the Guam Department of Agriculture. The Agency intercepted approximately 18,000 BTS in Guam. In FY 2013, APHIS and partners from the Departments of Defense and Interior, and the Guam Department of Agriculture began an evaluation of aerial broadcasts of acetaminophen-treated mice baits in reducing BTS populations in densely forested habitats. APHIS and partners in September 2013 conducted two bait drops. The successful delivery of this toxic bait is a critical next step towards developing a method for large area control of BTS in remote and inaccessible areas of Guam. Intensive monitoring of BTS activity after the bait drops has provided preliminary data that indicates a reduction in BTS activity and no evidence of impact to non-target species. This demonstration project is expected to continue for another 12 months and will contribute important information for APHIS to evaluate the method and potentially improve operational control of BTS on Guam.

Feral swine are a harmful and destructive invasive species, and they inflict significant damage to property, agricultural animal health and crops, natural resources, public health and native ecosystems. Currently, the total aggregate cost of damage caused by feral swine in the United States is estimated to be \$1.5 billion annually, with more than half of that amount due to direct damage to agriculture. In FY 2013, the program removed approximately 31,105 feral swine in 27 States. Further, APHIS completed 1,630 technical assistance projects to alleviate feral swine problems, such as providing educational materials and technical advice and recommendations to State and local cooperators. In January 2013, APHIS initiated a demonstration feral swine eradication project in New Mexico, using approximately \$1 million from contingency funding. New Mexico has a strong local base of support including multiple state and federal agencies, the Mescalero Apache Tribe, and livestock organizations committed to provide financial and logistical support as well as in-kind services to assist the project. During FY 2013, the program removed 640 feral swine from more than 4.8 million acres; this represents an important step in the 5-year goal of eradication of feral swine from New Mexico.

Nutria damages wetlands, agricultural crops, and structural foundations such as dikes and roads. APHIS is leading the first large-scale North American effort to eradicate a mainland nutria population in the Chesapeake Bay through funded agreements with the U.S. Fish and Wildlife Service and other cooperators. Since 2002, in cooperation with Federal and State agencies and private landowners, APHIS has removed nutria from more than 216,000 acres of coastal marshland that is monitored continuously to detect and remove nutria. APHIS has prevented the re-infestation of this area, and marsh grasses and native muskrat populations are quickly recovering. In FY 2013, the program removed nutria from 23,500 acres and surveyed an additional 50,000 acres in Virginia and found them to be nutria free.

2. Wildlife Services Methods Development

The Wildlife Services Methods Development (WSMD) program develops effective and socially responsible methods and information for managing conflicts between people and wildlife to protect agriculture, natural resources, human health and safety, and property. This program includes basic research in support of the Agency's animal health programs, discovery of new science and technology, information analysis and context development, product development, and technology transfer. APHIS' National Wildlife Research Center (NWRC) provides the only dedicated Federal leadership in developing methods to manage wildlife-related damage problems. More than 80 percent of NWRC research protocols involve partnerships with entities such as State and Federal agencies, non-governmental organizations, universities, tribal governments, and private sector businesses. In FY 2013, NWRC conducted 303 studies and published 157 scientific studies in 56 different professional scientific journals.

Agriculture

The WSMD program protects agriculture by safeguarding livestock from predators; and managing invasive species, beaver damage, wildlife species, wildlife rabies, and wildlife diseases. The following represent a few examples of research or methods used to protect American agriculture.

Bird and rodent damage cost California's agricultural producers an estimated \$168 million to \$504 million annually (APHIS, 2009, available at http://joomla.wildlife.org/documents/Bird_Rodent_Damage_Crops.pdf). Voles cause serious damage in orchards, nurseries, and field crops in California and in other States. Anticoagulant rodenticides have been used to manage rodent populations, but they may be losing their efficacy due in part to the development of resistance in vole populations. In FY 2013, NWRC researchers examined the metabolic activity of voles trapped from both high anticoagulant-use areas and non-use areas in California. These studies show that alterations in metabolic function play a role in anticoagulant resistance and will aid in the research in the development of new rodenticides.

Deer foraging on stored livestock feed increases both feed costs and risks of disease transmission between deer and cattle. In FY 2013, NWRC researchers evaluated a novel 4-foot-tall electric fence consisting of four strands of bipolar tape for excluding deer from feed piles. The fence was more than 80 percent effective at reducing deer at feed piles. The fence could provide temporary protection of stored feed in winter before a more permanent woven-wire fence could be installed. The bipolar tape fence may also be effective for reducing deer depredation in gardens, small orchards, or other seasonal resources.

In 2013, NWRC scientists continued to collaborate with Texas Parks and Wildlife and Australian scientists to develop sodium nitrite as a feral swine toxicant. Efforts are focusing on a final formulation that can be presented to the U.S. Environmental Protection Agency for the registration of a feral swine toxicant. Toxic bait will prove to be a valuable ancillary tool for the control of feral swine populations.

Escherichia coli O157:H7 is a food-borne bacterial pathogen that causes public health problems throughout North America. Infections can lead to gastroenteritis and hemolytic uremic syndrome, which can be fatal. In FY 2013, NWRC researchers demonstrated that European starlings are a significant risk factor for the dissemination of *E. coli* O157:H7 among dairy farms. This information is useful for developing efficient targeted biosecurity management plans at dairies and feedlots to improve herd health and lower risk of infection to humans consuming dairy and beef products.

NWRC scientists continued their partnership with TKO Enterprises to develop a nonlethal Canada goose hazing system. The Goose Guardian™ uses real-time artificial intelligence image-recognition software to identify geese and activate integrated scaring devices. In FY 2013, NWRC evaluations showed that the device could successfully detect geese at distances of 3 to 9 meters with 93 to 96 percent accuracy. The device was successful in repelling geese from 42 to 86 percent of the areas where deployed. Next steps include cost comparisons of prototypes relative to existing management methods under different use scenarios. For example, automated devices are not constrained by employee work schedules.

Natural Resources

The WSMD develops methods that protect natural resources from the impacts of invasive species, while minimizing or eliminating the use of toxicants that could damage the environment or contaminate food sources for non-target animals. In FY 2013, APHIS researched new methods to control the spread of nutria, Burmese pythons, brown treesnakes, and cormorants.

Populations of double-crested cormorants, a fish-eating waterbird whose populations in some areas of North America have doubled every 5 years for the past 3 decades, negatively impact commercial aquaculture, recreational fisheries, sensitive vegetation, and other colonial-nesting birds. NWRC scientists previously identified a biomarker in the skin called pentosidine. In FY 2013, researchers developed and evaluated eight models for using pentosidine to estimate ages of double-crested cormorants. The results will help resource managers predict whether populations are growing, static, or declining; this information is useful in setting harvest and take quotas to protect aquaculture stock from bird predation.

The Burmese python is a semi-aquatic, invasive reptile species in Florida, where its elusive nature and cryptic coloration make its detection difficult. In FY 2013, NWRC scientists developed methods to detect python DNA from environmental water samples. This method presents a promising new monitoring tool that could be used to enhance Burmese python control. This detection method eliminates the need for direct observations or handling of snakes and could make monitoring and control efforts more efficient.

Numerous local and Federal agencies are involved in efforts to reduce the invasive brown treesnake population on Guam and prevent the species' spread to other islands in the Pacific. Much of these efforts are spent at Guam's sea and airports to ensure outbound cargo is free of snakes. In FY 2013, NWRC researchers evaluated the effectiveness of five chemical aerosols to flush snakes from hiding places. The researchers identified chloroform and trichloroethylene as effectively aerosols that caused snakes to move. This test is a critical first step in determining whether this technology can be made operational.

The nutria is an invasive, semi-aquatic rodent that harms riparian and wetland habitats. In FY 2013, NWRC researchers evaluated the effectiveness of standard Vexar® plastic mesh tubes in reducing nutria foraging damage to newly planted woody vegetation. Survival over the 3-month initial establishment period was 100 percent for woody vegetation protected by Vexar® tubes, versus only 17 percent of unprotected plantings. Results indicate that Vexar® plastic mesh tubing can be an effective short-term mitigation tool when habitat use by nutria is low.

Human Health and Safety

The WSMD program protects human health and safety by developing methods to prevent or minimize bird-aircraft collisions, prevent the spread of rabies in various animals, and minimize conflicts between people and wildlife.

Several airports in the United States recently have installed large photovoltaic (PV) arrays near operational areas to offset energy demands. Bird use of solar installations should be examined to determine whether such changes in land use could increase wildlife strikes. In FY 2013, NWRC researchers evaluated bird use of five pairs of PV arrays and nearby airport grasslands in Arizona, Colorado, and Ohio. The researchers concluded that PV arrays do not conflict with safety regulations concerning wildlife at airports, and that PV arrays potentially could play a major role in efforts to design and operate "greener" airports.

Human–coyote conflicts are a growing problem in many North American cities. In FY 2013, NWRC scientists collaborated with researchers at Colorado State University to analyze more than 4,000 reports within the Denver Metropolitan Area. The study documented a strong seasonal pattern in conflicts, and revealed that conflicts were disproportionately greater in open space areas, commercial development sites, and suburban housing areas. These findings will help target management efforts, particularly those involving education and outreach.

Property

The WSMD program protects personal property from damage caused by animals and rodents. In FY 2013, NWRC continued to assist the U.S. Air Force by evaluating the field efficacy of a rodent barrier at a deactivated intercontinental ballistic missile launch facility at Malmstrom Air Force Base in Montana.

Selected Examples of Recent Progress – Regulatory Enforcement:

1. Animal and Plant Health Regulatory Enforcement

The Animal and Plant Health Regulatory Enforcement (APHRE) provides investigative and enforcement support to the Agency's four regulatory programs, and Agricultural Quarantine Inspection (AQI) activities carried out through the Department of Homeland Security, Custom and Border Protection. APHRE investigates alleged violations of Federal laws under its jurisdiction and pursues appropriate enforcement actions through administrative, civil, or criminal procedures.

In 2013, the program issued nearly 1,800 Official Warnings, 2630 pre-litigation settlements that resulted in the collection of \$1,831,005 in stipulated penalties, and obtained administrative orders assessing an additional \$943,307 in civil penalties. Highlights from each program are described below.

In support of animal health, APHRE initiated 152 cases, issued 53 Official Warnings, issued 14 pre-litigation settlements resulting in the collection of \$11,439 in stipulated penalties, and obtained administrative orders assessing an additional \$17,375 in civil penalties against persons for violations of laws aimed at protecting animal health and American agriculture.

In support of plant health, APHRE initiated 116 cases, issued 34 Official Warnings, and issued 38 pre-litigation settlements resulting in the collection of \$68,850 in stipulated penalties for alleged violations of laws aimed at protecting domestic plant health and American agriculture.

In support of biotechnology, APHRE investigated several high priority matters, including one involving the detection of genetically engineered wheat volunteers (occasional weedy annual grasses in crops that follow commercial wheat in crop rotations) in an Oregon wheat field. APHRE's quick response and ability to publicly share conclusive findings during early stages of the investigation successfully supported USDA's efforts to preserve the United States' \$6 billion wheat market and reopen wheat tenders with key Asian markets.

APHRE also supported animal welfare and horse protection. With respect to alleged violations of the Animal Welfare Act, APHRE initiated 325 cases, issued 295 Official Warnings, issued 55 pre-litigation settlements resulting in the collection of \$407,865 in stipulated penalties, and obtained administrative orders assessing an additional \$921,732 in civil penalties. With respect to alleged violations of the Horse Protection Act (HPA), APHRE initiated 476 cases, issued 1,255 Official Warnings, and obtained 19 administrative orders assessing \$4,200 in civil penalties and disqualifying 10 individuals from participating in activities regulated under the HPA.

In support of AQI activities, APHRE initiated more than 3,100 cases, issued 145 Official Warnings, and issued 2,523 pre-litigation settlements that resulted in the collection of \$1,342,851 in stipulated penalties for alleged violations of animal and plant health laws identified at U.S. ports of entry.

In FY 2013, APHRE continued to streamline its business processes and focus its resources on the highest priority investigations for APHIS's animal and plant health programs. In doing so, the program reduced its inventory of open investigations by 37 percent and improved its average time to complete an investigation and resulting enforcement action by 29 percent. In addition, APHRE increased the percentage of cases that resulted in positive enforcement action (or referral to the Office of the General Counsel for administrative enforcement) from 62 percent in FY 2012 to 80 percent in FY 2013, and reduced the number of investigations that were closed with no action from 38 percent in FY 2012 to 20 percent in FY 2013.

2. Biotechnology Regulatory Services

APHIS' science-based regulatory system protects against risks to U.S. plant health by providing, among other things, for the safe importation, interstate movement, and field testing of certain genetically engineered (GE) organisms. Developers seeking to conduct field tests, move interstate, or import GE organisms must first submit detailed information to APHIS for review and receive regulatory approval. During its review, APHIS assesses the information for potential plant health risks before the introduction can be approved. Depending on the characteristics of the GE organism, a developer either files a notification application or applies for a permit. GE plants that meet specific criteria are eligible to use the notification process, an administratively streamlined alternative to the permit process. Plants that do not meet the criteria for notification must follow the permitting process. This process involves a more comprehensive review than notification because of the need to ensure mitigation of potential plant pest risk through containment mechanisms and the need to ensure that the organisms being tested do not persist after completion of the field test.

APHIS officials verify compliance to the regulations through field test site inspections tailored to the specific requirements of the notification or permit. APHIS provides continuous education and outreach to the regulated community to facilitate compliance and improve awareness of regulatory responsibilities. In FY 2013, APHIS authorized 2,054 new permits and notifications at 10,698 locations in the United States, and issued 735 site inspections. Of those site inspections, 608 of the 735 site inspections completed a thorough review process, and represent more than 98 percent compliance with the regulations.

During FY 2013, the Agency continued implementation of the Biotechnology Quality Management System (BQMS) program, which is a nonregulatory solution that provides tools that facilitate compliance while raising awareness and compliance of regulatory responsibilities. Currently, there are 21 entities including both large and small organizations that have voluntarily established a BQMS to manage their domestic research and development of GE organisms. In FY 2013, APHIS recognized six new entities that completed the program and successfully implemented a BQMS. BQMS participants account for 97.7 percent of the acreage of GE field test sites overseen by APHIS. APHIS also held six education workshops at universities, non-profit consortiums, and professional conferences to further strengthen compliance. BQMS and education and outreach efforts contribute to the Agency's high compliance with its regulations.

If developers demonstrate that a GE organism is not a plant pest, they can submit a petition/request to APHIS for a determination of nonregulated status, which means that the GE organism is no longer subject to APHIS regulatory oversight. APHIS' determination of nonregulated status of GE organisms is an important factor in the acceptance of U.S. biotechnology crops, in both domestic and international markets. The petitioner must provide data, gathered through confined field tests regulated by APHIS, to help inform the Agency's decision. In its consideration of a petition for nonregulated status, APHIS conducts an extensive plant pest risk assessment to evaluate and determine potential risk to plant health. In addition, APHIS evaluates the potential environmental impacts of a determination of nonregulated status by preparing an environmental review as required by the National Environmental Policy Act. In FY 2013, APHIS surpassed its goal of six determinations, and made nine determinations of nonregulated status, a 50 percent increase from FY 2012. These determinations of nonregulated status include herbicide tolerant/insect resistant cotton and soybean, five varieties of corn, and two varieties of herbicide tolerant canola. As of FY 2013, APHIS has made a total of 102 determinations consisting of 165 plant lines

Since the petition process was added to APHIS biotechnology regulations in 1992, the timeline to reach a final decision had grown from six months to an average of 2.8 years. APHIS used business process improvement techniques and identified innovative ways to improve the biotechnology petition process to significantly decrease the length and variability of the review process to 13 to 16 months, without compromising the quality of decision-making. Improvements included: process streamlining, timeline standardization, implementation of new management and tracking tools, and more opportunity for public input. By taking these steps, APHIS delivers a more predictable petition process without compromising the quality of the analysis to support our decision making. The first petition to reach a determination of nonregulated status start to finish in the improved process did so in 376 days sooner than the average time under the previous process. This fact demonstrates that the improved process can and will result in more timely availability of agricultural products to producers and growers.

In May 2013, APHIS confirmed the presence of a GE herbicide resistant wheat plant in Oregon, and immediately opened a formal investigation since there are no GE wheat varieties approved for sale or in commercial production in the United States or elsewhere at this time. APHIS worked collaboratively with State and Federal officials, including the Food and Drug Administration (FDA), to understand the situation and to understand possible implications for each agency's regulatory and trade stance. FDA informed the public that this GE wheat variety had undergone a review by FDA for food and feed safety, and that it had been deemed safe. APHIS then quickly and efficiently collected information and evidence, interviewed nearly 270 farmers for observations of GE wheat plants in their fields, and undertook review and analysis of historical GE wheat plant permits. All of the evidence collected thus far indicates that the extent of the presence of this GE wheat remains the single detection of the GE wheat plants in one field of one farm in Oregon. USDA overseas officers met with and reassured government officials in key markets, and continue to work with our trading partners to ensure continued market access for U.S. wheat. APHIS is committed to taking appropriate future action as our priority is to protect American agriculture and give U.S. trading partners the tools they need to make science-based trade decisions.

The APHIS biotechnology regulatory program continued its efforts in Tribal relations in FY 2013 by conducting outreach activities to build awareness and enhance relationships in the oversight of GE organisms. Biotechnology Regulatory Services also continued to partner with the States to conduct inspections. The partnership between the Agency, States, and Tribes is critical to the successful implementation of regulations for certain GE organisms that may pose a risk to plant health.

APHIS works with international partners to enhance coordination of regulatory approaches and to provide capacity building assistance to developing countries for the regulation of GE crops. These activities promote U.S. exports of GE products by ensuring that trading partners understand and accept the U.S. system for regulating GE crops. For example, in FY 2013, APHIS worked closely with Mexico and Canada towards harmonization of regulatory policies and procedures, including a project to examine the impacts of transgene insertion on plant genomes and the resulting implications for risk assessment. With colleagues in Environmental Protection Agency, FDA and USDA's Foreign Agricultural Service, APHIS participated in bilateral discussions and regulatory workshops with Chinese biotechnology regulators and developers. APHIS staff also provided training and information about USDA's policies and regulations to officials from 20 countries, including the European Union, Brazil, China, India, and Japan, among others through a variety of venues last year.

Throughout FY 2013, APHIS contributed to the United States participation in global discussions on potential trade issues resulting from the low level presence of GE events approved by the country of export, but not by the importing country. APHIS was also instrumental in shaping the Organization of Economic Co-operation and Development discussion on low level presence in seed. And finally, APHIS made significant contributions to USDA's ongoing effort to advance comprehensive import policies for GE animals and plants.

Selected Examples of Recent Progress – Emergency Management:

1. Emergency Preparedness & Response

The Emergency Preparedness and Response program improves APHIS' capability to prevent, prepare, respond to, and recover from animal emergencies. These emergencies range from small-scale incidents to catastrophic events caused by various hazards, including foreign animal diseases (FADs) or pests. In natural or man-made disasters, APHIS provides technical support to the Federal Emergency Management Agency (FEMA) for the care of household pets as required by the *Pets Evacuation and Transportation Standards Act*. The program also implements and oversees compliance with the *Public Health Security and Bioterrorism Preparedness Response Act of 2002*, which authorizes APHIS to regulate agents or toxins that threaten animals, plants, or animal and plant products (known as select agents and toxins). These actions safeguard the health and value of U.S. agriculture.

Preparedness, Partnerships & Planning

In FY 2013, APHIS continued to develop public-private academic partnerships to advance foot-and-mouth disease (FMD) response strategies and capabilities, including the use of an FMD vaccine to control and eradicate an

outbreak. APHIS also continued to develop and integrate response planning and capabilities, as well as identifying resources needed for FMD preparedness and response. In addition, APHIS continued to develop public-private academic partnerships (FAD Preparedness and Response Plan, Secure Food Supply Projects) and produced 20 new preparedness products in the form of response plans, National Animal Health Emergency Management System guidelines, ready reference guides, industry manuals, and standard operating procedures. These materials help stakeholders improve their planning and response capabilities regarding animal health and FAD incidents.

Preparedness Exercises

In FY 2013, APHIS Emergency Management staff, Area Emergency Coordinators, laboratory personnel, and other personnel engaged State agencies, Tribal nations, local governments, and industries to refine emergency response plans by participating in exercises. APHIS participated in approximately 100 animal health or all-hazards exercises to test capabilities and identify areas for improvement. Of note, the National Veterinary Stockpile program conducted a North American FMD Vaccine Bank logistics exercise with Canadian and Mexican officials to simulate the transportation of frozen vaccine concentrate antigen from Plum Island, New York, to a foreign manufacturer with return to the United States, Canada, and Mexico. Through this exercise, the program was able to successfully review and validate the roles and responsibilities for moving FMD vaccine antigen concentrate to the manufacturer and delivering the finished FMD vaccine to the United States, Canada, and Mexico through the National Veterinary Stockpile. APHIS will use the findings to finalize the deployment plan that coordinates the delivery of finished FMD vaccine.

Additionally, APHIS supported exercises to enhance multi-jurisdictional coordination capabilities. APHIS coordinated a regional exercise with State members of the Southern Agriculture and Animal Disaster Response Alliance to test the States' capabilities to request animal response resources from other States in the event of a natural disaster. The exercise included State departments of agriculture and emergency management agencies, Federal agencies, and the National Animal Rescue and Sheltering Coalition. APHIS coordinated a second regional exercise with States, local jurisdictions, and members of the Association of Zoos and Aquariums to test the capabilities of zoos to coordinate a response to a foreign animal disease outbreak. Both exercises enabled Federal, State, and non-governmental organizations to practice their emergency response procedures, improve communication among participating organizations, and coordinate response efforts.

Response Efforts

Emergency Support Function 11: Agriculture and Natural Resources (ESF #11) supports State, Tribal, and local authorities and other Federal agency efforts to: 1) provide nutrition assistance; 2) respond to animal and agricultural health issues; 3) provide technical expertise in support of animal and agricultural emergency management; 4) ensure the safety and defense of the Nation's supply of meat, poultry and processed egg products; and, 5) protect Natural, Cultural, and Historical resources. APHIS is designated as the overall Coordinator for all five ESF #11 functions, and is the primary agency for two of the functions. Building upon APHIS' extensive animal and plant health networks to deal with pest and disease emergencies, the Agency supports State, Tribal and local governments as they assist individuals in emergency situations with household pets and service animals. In FY 2013, APHIS responders were activated by FEMA to support response to Hurricane Sandy, Winter Storm Nemo, tornados in Oklahoma City, and winter storms in Alaska. During the response to Hurricane Sandy, APHIS ESF #11 staff worked with FEMA, USDA's Food and Nutrition Service, USDA's Food Safety and Inspection Service, the Department of the Interior, and non-governmental organization (NGO) partners to distribute USDA foods to shelters for human consumption, distribute pet food, and assist with protection of natural and cultural resources. For example, in New York, where there were significant fuel shortages in the immediate aftermath of Sandy, the pet food was delivered to the American Red Cross for distribution to pet owners through Red Cross' emergency response vehicles and bulk distribution locations. In such cases, animal commodities were distributed using existing human supply chains, achieving efficiencies in response and, more importantly, "one-stop shopping" for the disaster survivors. APHIS, as part of its animal health mission, regulates entities covered under the Animal Welfare Act. This includes commercial pet breeders, research facilities, animal exhibitors, and animal transporters. After Hurricane Katrina in 2005, FEMA's authorizing legislation was amended to incorporate emergency planning and response for pet owners and their pets to safeguard the public during emergencies. In 2008, the responsibility for coordinating pet preparedness and response was included in ESF 11 and tasked to APHIS. In this capacity, APHIS

works with FEMA, other Federal agencies, States, and non-governmental partners to build a shared national strategy and take appropriate planning, preparedness, and response actions to ensure the safety and well-being of pet owners and their pets affected by disaster. In addition, APHIS worked with Federal, State, and NGO partners to develop best practices documentation on various topics including Animal Decontamination, Animal Search and Technical Rescue, Animal Sheltering, Community Preparedness and Outreach, Disaster Veterinary Care, Evacuation and Transport, Planning and Resource Management, and Zoo Best Practices.

Foreign Animal Disease Investigations

In FY 2013, APHIS and State animal health officials investigated suspect cases presenting with vesicular type lesions. For FY 2013, there were 371 investigations, with 267 of those for vesicular conditions. The species with the most investigations for vesicular conditions were equine (110), bovine (94), and caprine (31). All investigations were negative for detection of FMD or other FAD.

Safeguarding of Select Agents

The *Public Health Security and Bioterrorism Preparedness Response Act of 2002* requires individuals or entities possessing, using, or transferring select agents or toxins affecting animals and plants to register them with the Centers for Disease Control and Prevention (CDC) or USDA. APHIS remains the USDA agency with the expertise and authority to review the biosafety and biocontainment restrictions of these materials. APHIS monitors their movement by identifying and registering the entities or facilities that use them.

At the end of FY 2013, the Select Agents Program included 43 registered entities, and 7 applications for registration certificates were pending. APHIS received 121 requests for amendments and changes to certificates made through CDC, and processed 75 percent of them. In addition, the Agency received 276 requests for amendments from entities registered directly with APHIS regarding registrations, amendments, and renewals, and processed 80 percent of these requests. The Agency issued 393 select agent import permits and processed 98 transfer forms in FY 2013.

In FY 2013, APHIS and the CDC revised the regulatory process for processing permits and transfers of shipments, providing a better means for documenting and tracking individual shipments. The CDC held a workshop via webinar in November 2012 to provide additional details and guidance on the new select agent regulatory requirements to the regulated community. APHIS and CDC also published multiple guidance documents to assist in the implementation of the new regulations. In April 2013, APHIS and CDC provided training for interagency select agent inspectors on the new regulatory requirements, as well as training for select agent inspectors via webinar several times throughout the year.

APHIS also worked with CDC to conduct 27 renewal inspections, 19 unannounced compliance inspections, 17 joint inspections, and 4 inspections involving amendments. APHIS conducted one inspection for a new applicant and one inspection related to an investigation of potential wrongdoing. To address noncompliance, APHIS issued corrective letters for minor violations and for more serious noncompliance issues.

Capacity Building

The National Animal Health Emergency Response Corps (NAHERC) provides a reserve of veterinary professionals to help Federal and State responders during an animal health emergency. NAHERC volunteers become temporary Federal employees when activated. As of September 2013, 4,184 qualified members were enrolled (971 veterinarians, and 3,213 animal health technicians). Recruitment efforts included online advertising, direct mail campaigns, veterinary conferences/seminars, and networking with animal health professionals.

In May 2013, APHIS published an update to the National Response Framework that includes a more complete consideration of animals and animal emergency management issues, and will facilitate better integration of animal issues in emergency management at all levels of government. Because most animal disaster response capabilities exist in the non-governmental sector, recognizing and including non-governmental response is vital to building national resiliency. APHIS meets on a quarterly basis with its ESF #11 animal response partners, the National Alliance of State Animal and Agricultural Emergency Programs and the National Animal Rescue and Sheltering

Coalition, and Federal partners (the Department of Homeland Security, the Office of Health Affairs, FEMA, and the Department of Health and Human Services) to plan, prepare, train, and practice to provide coordinated “surge” animal response capabilities and capacity to States.

Biosecurity

APHIS’s newly created exotic plant pest information system, PestLens, provides the Agency with current biological information about exotic pests such as distribution, host range, history of spread, and susceptibility control measures. PestLens is the result of the merger of the Exotic Pest Information Collection and Analysis and the Offshore Pest Information System. Newly emerging pest information is summarized and reported through a weekly e-mail notification. The articles are then stored in the PestLens database, providing a conceptual framework for subject matter experts to make safeguarding decisions. APHIS personnel will have access to the database in January 2014. During FY 2013, PestLens generated 51 weekly e-mail notifications that contained 164 unique pest articles.

SAFE TRADE AND INTERNATIONAL TECHNICAL ASSISTANCE

Current Activities: APHIS monitors plant and animal health throughout the world and uses the information to set effective agricultural import policies to prevent the introduction of foreign plant and animal pests and diseases. APHIS and the Department of Homeland Security cooperate to ensure that these policies are enforced at U.S. ports of entry. APHIS also develops and conducts pre-clearance programs to ensure that foreign agricultural products destined for the United States do not present a risk to U.S. agriculture. The Agency engages in cooperative programs to control pests of imminent concern to the United States and to strengthen foreign plant protection and quarantine organizations. APHIS assists U.S. exporters and the Foreign Agricultural Service in revising foreign plant and animal import regulations to encourage and increase U.S. agricultural exports. The Agency also manages and resolves sanitary (animal) and phytosanitary (plant) trade barriers.

APHIS’ role is to negotiate animal and plant health certification requirements, assist U.S. exporters in meeting foreign regulatory requirements, ensure requirements are proportional to risk without being excessively restrictive, and provide any necessary technical information to support the safety of U.S. agricultural products destined for foreign markets.

Selected Examples of Recent Progress in Safe Trade:

1. Agriculture Import/Export

APHIS works with other Federal agencies, States, foreign governments, industry, and academia to protect U.S. agriculture while facilitating the safe trade of animals and animal products. APHIS animal health experts ensure that U.S. import requirements safeguard U.S. livestock health and negotiate requirements for the export of U.S. animals and animal products worldwide. These requirements and negotiations are based on compliance with international standards, sound scientific principles, and fair trading practices for animals and animal products. Moreover, APHIS sets quarantine, testing, and other requirements under which animals and animal products can be imported or exported. These requirements help ensure that global markets can be accessed, expanded, or maintained with little or no risk to U.S. animal production and human health.

APHIS also conducts activities related to the 2008 Farm Bill amendments to the Lacey Act, which prohibit the importation of any plant, with limited exceptions, that are taken or traded in violation of domestic or international laws. The Act requires a declaration for imported shipments of most plants or plant products. APHIS’ role is to issue regulations, provide guidance to importers regarding the declaration, perform compliance checks, provide enforcement agencies with declaration information to assist their investigations, and house documents.

Imports

To facilitate imports, APHIS evaluates the animal health status of regions that wish to export animals and/or animal products to the United States. This process minimizes the risk of introducing animal diseases through imports. In

FY 2013, APHIS completed several evaluations that were published in the *Federal Register*. These evaluations involved classifying Hungary, Slovakia, Slovenia, and Estonia as low risk for classical swine fever, and recognizing 25 Member States of the European Union (EU) as free of highly pathogenic avian influenza (HPAI) and Newcastle Disease. In addition, APHIS added six regions of Italy to the list of regions recognized as free of swine vesicular disease. The new classifications further facilitated trade between the U.S. and the other countries. APHIS also addressed import issues related to live animals and animal products arising at the ports, especially with regard to facilitating cattle imports from Mexico. In FY 2013, APHIS issued 9,235 import permit applications for live animals, animal products, organisms and vectors, and select agents. This was roughly the same number of permits issued in FY 2012. In addition, the Agency ensures that import regulations are effective and science-based. In FY 2013, APHIS revised import requirements for ruminant germplasm imported from the EU to mitigate concerns about Schmallenberg Syndrome, an emerging disease found in Europe. The Agency revised import requirements for birds and poultry exported from Australia and Mexico due to reports of HPAI in those countries. In addition, APHIS audited EU veterinary oversight of ruminant germplasm and live swine exported to the United States to ensure that import requirements were being properly implemented overseas.

Exports

APHIS estimated the value of new or maintained export markets for live animals, germplasm, and animal products to be approximately \$2 billion for FY 2012. To open, re-open and maintain U.S. access to worldwide export markets, APHIS negotiates science based conditions with trading partners for various commodities that protect their country while also facilitating trade. In FY 2013, APHIS negotiated, or re-negotiated 74 export protocols for animal products (16 new markets, 19 expanded markets, and 39 retained markets), and 158 export protocols for live animals (33 new markets, 78 expanded markets, and 47 retained markets). Also, in FY 2013, APHIS reopened the market for live cattle to Kazakhstan, opened new markets for cattle to Iraq and Jordan, and swine to the EU. The Agency also opened the market for day-old chicks to the Customs Union (Russia, Kazakhstan, and Belarus). In addition, APHIS eliminated BSE-related restrictions on U.S. exports of beef or other commodities to Bahrain, Mexico, Indonesia, Panama, Peru, Trinidad and Tobago, and Turkey. APHIS reopened poultry exports from several States to Japan, China, Cuba, Ecuador, Hong Kong, Iraq, Kazakhstan, Russia, Singapore and Taiwan. APHIS conducted voluntary inspections of more than 500 U.S. manufacturing facilities to maintain, expand, or open export markets in many countries, including the EU, Australia, Mexico, China and others. APHIS participated in industry stakeholder meetings, provided technical support for World Trade Organization cases, and attended bilateral trade meetings with Mexico, EU, Japan, Brazil, and Taiwan. APHIS also developed 24 information packages and questionnaire responses from various countries to maintain, expand, or open export markets. In addition, APHIS provided information to the World Organization for Animal Health which resulted in the recognition of the United States as a country having negligible risk for bovine spongiform encephalopathy.

APHIS has launched a new application for electronically issuing export health certificates, which currently allows for certificates to be issued for 9 commodities to 2 countries. The Agency is expanding the capabilities of the system and the numbers of certificates issued by this system, which has received extremely positive feedback from industry stakeholders.

Lacey Act

In FY 2013, APHIS continued to assemble a dedicated staff, evaluate options for storing paper declarations, provide outreach to industries and importers, and develop a web-based system for collecting declarations. Currently, importers submit declarations either by mailing paper forms to APHIS or electronically through a licensed customs broker and a database operated by the U.S. Customs and Border Protection (CBP) agency. Approximately 10 percent of the declarations are submitted on paper forms that require significant resources to analyze and store securely. The web-based system that APHIS is developing will provide an easier, more efficient alternative for filing declarations and allow the Agency to analyze and monitor a larger portion of the declarations for compliance. APHIS is testing the system before full implementation scheduled for 2014. APHIS is also working with CBP to further streamline the process for filing declarations in CBP's database. In addition, APHIS has two initiatives underway to save importers time and potentially money in filing Lacey Act declarations: implementing Special Use Designations (SUDs) and proposing a rule to develop *de minimis* exemptions. SUDs are short-hand designations for some commodities that can be used in place of listing potentially dozens of plant species contained in the product to

help importers expedite their reporting, and the *de minimis* exemptions would eliminate the need to declare products comprised of minimal plant material, with the exception of plants under protected status (such as those covered by the Convention on International Trade in Endangered Species of Fauna and Flora). On July 9, 2013, APHIS published an interim final rule to establish definitions for “common cultivar” and “common food crop,” which are excluded from the Act. The definitions in this rule are designed to exclude most commercially grown food and fiber items from the Lacey Act requirements.

2. Overseas Technical & Trade Operations

Maintaining animal and plant health expertise around the world ensures the smooth flow of American agriculture into the international marketplace. The Overseas Technical and Trade Operations (OTTO) program prevents foreign agricultural pests and disease threats to the United States, facilitates U.S. agricultural trade through the resolution of technical trade barriers, and supports the development of science-based regulatory systems around the world. Specifically, the program opens, expands, and retains foreign markets for U.S. agriculture; monitors trading partners’ sanitary and phytosanitary (SPS) import conditions for U.S. agricultural products; ensures the smooth and safe movement of agricultural commodities to and from the United States; resolves technical issues affecting shipments of U.S. exports at foreign ports of entry by placing technical experts overseas; and monitors emerging pest and disease situations to prevent the introduction of exotic animals, plant pests, and diseases to the United States, among other responsibilities.

Additionally, APHIS effectively engages with other Federal agencies, foreign governments, and international organizations to respond to trade issues. The relationships with foreign regulators allow our animal and plant health technical experts to directly intervene on behalf of U.S. exporters. All together, these actions directly protect U.S. agriculture, expand international markets for U.S. exporters, and support the President’s National Export Initiative (NEI) to double exports by the end of 2014. These exports also support more than one million jobs in communities around the country. In FY 2013, APHIS successfully intervened in 280 releases of U.S. cargo held up at foreign ports-of-entry, which prevented the rejection of shipments worth more than \$34.8 million. In FY 2013, APHIS also successfully negotiated and resolved 200 SPS trade-related issues involving U.S. agricultural exports, with an estimated market value of \$2.9 billion.

APHIS maintained and opened international markets for American agricultural products. The Agency negotiated a new health certificate for animal feed exports to Mexico. In conjunction with U.S. Government-wide efforts, APHIS expanded the beef export market in Japan (worth approximately \$1 billion) and gained access to the Australian market for California and Pacific Northwest peaches and nectarines (valued at around \$4.2 million) and after years of negotiation, successfully exported the first shipment of pears from California, Oregon, and Washington to China, which was worth approximately \$1.5 million.. APHIS negotiated a new cold treatment schedule for apples to Israel, allowing a market valued at \$7.3 million to continue. APHIS experts also restored poultry exports from Arkansas to Russia worth \$20 million, and reopened the market for live pigs to the European Union worth \$5 million. Retaining markets provides assurance about the safety of U.S. products and involves intense efforts, constant communication, and hosting delegations from trading partners around the world. All values referenced in this and the preceding paragraph are from the Global Agricultural Trade System Online, maintained by USDA’s Foreign Agricultural Service.

Relationships and communication with regulatory counterparts who make market decisions are critical to new market access for U.S. agricultural exports. APHIS officials strengthen these relationships with bilateral discussions, foreign regulator visits, and plant and animal health awareness training. APHIS officials informed 385 foreign officials about the U.S. regulatory process by hosting them during 74 separate visits. Providing our foreign counterparts with the skills and information to improve their regulatory systems helps safeguard American agriculture and promote safe trade.

APHIS actively participates in the World Organization for Animal Health (OIE) and the International Plant Protection Convention (IPPC) that promote international standards for veterinary services, plant protection, and trade. Science-based standards set by the OIE and the IPPC are an important foundation for making global agricultural trade safe, predictable, and fair. The World Trade Organization (WTO) formally recognizes the OIE and the IPPC as the international organizations responsible for setting the animal and plant health standards that

guide agricultural trade. Because of our regulatory expertise, APHIS leads negotiations of international standards on animal and plant health developed by the OIE and IPPC. APHIS also provides input to the WTO notification process, where foreign trading partners may comment on changes to regulations affecting trade. APHIS notified the WTO on 33 proposed and final animal and plant health regulations and commented on 31 notifications from foreign governments on regulations that could affect U.S. exporters. In addition, APHIS is participating in negotiations with the European Union on a Trans-Atlantic Trade and Investment Partnership, announced by President Obama on February 12, 2013. APHIS is also an active participant in negotiations for a Trans-Pacific Partnership that would include Asian and North and South American countries as trading partners.

APHIS officials assist in modeling plant and animal health systems, train, and exchange information with future trading partners who currently cannot meet international standards for safe agricultural trade. Interests for capacity building include risk analysis, import and quarantine protocols, and plant and animal surveillance including laboratory diagnostics. In FY 2013, APHIS partnered with other Federal agencies to review 138 requests for subject matter expertise and training. Of that total, the Agency approved and completed 122 requests that support critical Agency mission areas and goals of international collaboration. For example, working with USDA's Foreign Agricultural Service and the United States Agency for International Development, APHIS was able to complete four distance learning training modules for plant health in Pakistan. In collaboration with the U.S. Department of Defense and U.S. Department of State, veterinarians from more than 20 countries were taught courses in veterinary epidemiology of trans-border animal diseases as well as risk-based analysis of the importation of animals and animal products.

Agricultural trade is essential for the U.S. export market, and may be subject to costly disruptions from animal and plant health barriers. Regulatory, technical trade and capacity building activities support food security and export opportunities to U.S. producers. The activities provide safe, nutritious products such as fruits, vegetables, and animal protein sources to international markets. APHIS is monitoring shifts in global trade trends and is aligning the assignment of overseas officials with critical areas undergoing change. Overall, the OTTO program protects U.S. agricultural resources from costly foreign pests and diseases.

ANIMAL WELFARE

Current Activities: The Agency conducts regulatory activities to ensure the humane care and treatment of certain animals and horses as required by the Animal Welfare Act of 1966 as amended (7 U.S.C. 2131-2159), and the Horse Protection Act (HPA) of 1970 as amended (15 U.S.C. 1821-1831). These activities include inspection of certain establishments that handle animals intended for research, exhibition, wholesale pet trade, or transported in commerce. APHIS places primary emphasis on inspection of facilities, records, investigation of complaints, inspection of problem facilities, and training of inspectors. APHIS also administers the HPA, as amended, which prohibits the showing, sale, auction, exhibition, or transport of sore horses. Program personnel attend and monitor certain horse shows to prevent this cruel act of soring, from occurring.

Selected Examples of Recent Progress in Animal Welfare:

1. Animal Welfare

APHIS' Animal Welfare program has the unique Federal role of ensuring the humane care and treatment of animals covered by the Animal Welfare Act (AWA) through inspection, education, compliance, and enforcement efforts. APHIS regulates and protects more than two million animals used in research, exhibition, and the pet trade as well as those transported in commerce. The AWA requires all facilities that use animals regulated under the Act to maintain a license or registration with APHIS.

Licensing Activities

APHIS conducts pre-licensing activities, including education and inspection of facilities, to ensure that applicants comply with AWA regulations and standards prior to the issuance of a license. The program oversees more than

7,400 licensees and registrants associated with more than 15,710 facilities. In FY 2013, APHIS inspectors conducted 1,027 inspections associated with pre-licensing activities. After issuing a license, inspectors perform unannounced inspections to verify continued compliance. In all, APHIS inspectors conducted approximately 9,412 inspections to determine the welfare of animals, placing an emphasis on the inspection of licensed facilities with documented non-compliance.

APHIS developed information modules to assist commercial dog dealers with complying with the AWA. The modules are available online and APHIS inspectors use these during the first pre-license inspection. To measure the impact of this service, APHIS will begin evaluating the compliance of facilities within a year of receiving their license.

APHIS continued its efforts to improve the quality and accuracy of inspections. Such activities used to support this effort included the delivery of 14-recorded training sessions to inspectors, two webinars educating stakeholders about the new regulatory impacts, such as the contingency rule, and revisions to guidance documents. APHIS continued to focus on conducting quality inspections and collecting thorough documentation and evidence during inspections.

Enforcement Activities

If APHIS inspectors discover a violation during a compliance inspection, they take additional actions that include an increased frequency of unannounced inspections to check if the facility made the necessary modifications to comply. Continued noncompliance may result in monetary penalties, and possible suspension or revocation of the facility's license. Overall, substantial compliance with the AWA remained at 93 percent, with only 3 percent of licensees having significant repeat violations of the AWA.

In FY 2013, APHIS provided 222 warning letters regarding licensee and registrant's compliance with the AWA. This approach allows APHIS to address infractions in a timely manner, and facilities to improve their overall compliance before further action is necessary.

Among other notable enforcement actions, the Judicial Officer issued a decision and order to an exhibitor assessing a \$14,600 civil penalty for AWA violations including failure to protect the young and immature animals from excessive public handling that would be detrimental to their well-being. The Judicial Officer also terminated an exhibitor's license for AWA violations including failure to permit inspection of his animals, premises, and records by APHIS on multiple occasions, and making false statements to government officials.

When able, APHIS may work with licensees to move their animals to another facility when that licensee is unable to meet the animal welfare standards or can no longer care for their animals. For example, in FY 2013, APHIS issued 22 non-monetary pre-litigation agreements that placed more than 2,948 animals in new homes. By doing so, APHIS improved animal welfare conditions while minimizing the financial liability of the former licensees. In one notable action, APHIS worked cooperatively with the U.S. Fish and Wildlife Service, and other agencies and non-governmental organizations, to care for and relocate more than 300 animals that were suffering from neglect at the Las Vegas Zoo. APHIS and cooperators successfully placed nonhuman primates, large exotic cats, reptiles, fish, birds, and other wild/exotic mammals in facilities in Nevada, California, Arizona, Florida and Kentucky.

To improve compliance in established facilities, APHIS implemented a pilot program to help licensees improve the welfare of their animals by promoting a more cooperative relationship with attending veterinarians. The effort also enhances licensees' understanding of animal husbandry and development of effective veterinary care programs. The pilot program operates outside of the inspection process and gives facilities that express a commitment to improve the welfare of their animals the opportunity to do so before APHIS pursues further enforcement actions.

Outreach/Stakeholder Activities

APHIS' Center for Animal Welfare supports compliance efforts through non-regulatory methods such as education, training, and outreach to stakeholders to convey critical and current animal welfare information. To ensure it can reach the right stakeholders, the Center leverages its partnership with universities, industry, and animal interest

groups, as well as technology to communicate information. Furthermore, the Center serves as a national resource for policy analysis, and science and technology in support of the AWA. Examples of these efforts include:

- The Center provided AWA guidance to facility operators at dog dealer industry meetings, such as educational tools to improve kennel temperature control options. The Center also hosted a meeting with leaders in the dog dealer industry to exchange ideas on improvements to emergency planning and the inspection process, review the impacts of policy and rules on the industry, and answer specific concerns of licensees. The meetings have increased communications between APHIS and the regulated industry.
- APHIS modified web-based training modules and developed new modules for the pre-licensing program, marketed these modules to industry leaders and others stakeholders, and released the modules to the public via the Iowa State University and APHIS websites. This approach provides additional avenues for stakeholders to receive information. The new modules cover various aspects of the animal welfare regulations with the two-pronged goal of helping licensees understand the regulations as they pertain to them and improving compliance.
- APHIS provided outreach and educational materials to State-level pet breeder associations in eight states (Illinois, Iowa, Kansas, Missouri, Ohio, Oklahoma, South Dakota, and Texas). The Center held canine care workshops and offered continuing education seminars for veterinarians during the workshops. For the first time, the Center included access to the workshop via webinar. The Center developed and distributed to kennel operators a fact sheet on the socialization of dogs to improve the well-being of dogs.
- The Agency coordinated inspections for marine mammals protected under the AWA and the Marine Mammal Protection Act with the National Marine Fisheries Service and the Marine Mammal Commission. APHIS personnel also provided extensive outreach with industry members and partners to improve the housing and husbandry of marine mammals for example, to reduce eye damage to captive sea lions.
- In collaboration with Kansas University, APHIS developed an interactive educational training module for airline industry personnel. The “Pets on a Plane” module is designed to teach airline employees how to assess the adequacy of an animal’s transport enclosure.
- APHIS presented recommendations to the American Association of Zoo Veterinarians to reduce the number of giraffe deaths due to low environmental temperatures.
- In addition, APHIS created an electronic version of the research facility annual report form to expedite the reporting of animals used in research.

Regulatory Changes

In FY 2013, APHIS published a final rule to revise the definition of “retail pet store” in the AWA regulations to close a loophole that, in some cases, has threatened the health of pets sold sight unseen over the Internet and via phone- and mail-based businesses. The rule will help to ensure that breeders who sell dogs, cats, and other pet animals at retail (where there currently is no public oversight) provide their animals with humane care and treatment in accordance with AWA standards. APHIS is phasing in implementation of the rule, which will result in approximately 3,000 to 5,000 additional pet animal breeders applying for a USDA license. Before publication of the final rule, APHIS hosted a series of conference calls with industry groups and webinars for the public. APHIS will continue to develop and distribute information on the new rule to hobby breeders, professional and industry organizations and associations, industry leaders, and the public.

2. Horse Protection

APHIS enforces the Horse Protection Act (HPA) of 1970, a federal law that prohibits horses from subjection to “soring.” Soring is the application of a chemical or mechanical irritant to a horse’s forelegs to cause a pain-induced high-stepping gait. This accentuated gait provides a competitive edge during certain show events.

Inspection Activities

APHIS inspectors, along with designated qualified person (DQP) inspectors, inspect all horse entries at HPA-events. A DQP inspector is a person who is delegated authority by the management of a horse event to inspect horses for soring according to the HPA. A Horse Industry Organization (HIO), certified by the USDA, licenses DQP inspectors. As part of the HPA compliance program, in FY 2013, APHIS provided 10 training sessions to Horse Industry Organizations as refresher training to existing DQP inspectors as well as initial training for those interested in becoming DQP inspectors.

In FY 2013, 288 HPA-events were held across the United States. APHIS and DQP inspectors examined all 38,724-horse entries, with APHIS inspectors conducting 25 percent of the inspections and DQP conducting 75 percent of the inspections. Although APHIS inspectors conducted fewer inspections than DQP inspectors, APHIS inspectors detected 80 percent of the violations. At the horse events APHIS attended, horse owners/trainers withdrew 1,198 entries prior to inspection. In FY 2014, APHIS plans to adjust the regulations to minimize both the violation discrepancy and the withdrawal of horses in competition events by having APHIS license and train DQPs directly.

APHIS uses gas chromatography/mass spectrometry to provide confirmation of suspected foreign substances applied to the legs when evidence of a mechanical irritant is absent. APHIS analyzed approximately 450 samples, of which 235 tested positive. APHIS added drug testing via blood collection and tested 83 horses, of which eight tested positive for foreign substances used in soring activities. APHIS inspectors would not have detected these substances using the conventional chromatography/spectrometry. APHIS also implemented iris-scanning technology to identify horses with a history of soring. Agency inspectors scanned the irises of 1,500 horses and plans to use this information to focus future testing efforts.

APHIS initiated a business process improvement for its Horse Protection program to seek more transparency and consistency in its inspection process and to remove vulnerabilities that could impede efforts to protect horses from soring. The study identified four actions to improve APHIS processes in implementing the HPA: 1) Develop standard operating procedures (SOPs) to improve consistency in show selection and inspection processes; 2) Design and launch an electronic information repository to provide access to SOPs and other documents to APHIS employees; 3) Develop a risk-based decision model to support the selection of shows to be inspected; and 4) Develop performance elements for APHIS employees implementing the HPA. APHIS has completed the development and implementation of the SOPs and the electronic information repository. The rest of the action items will be completed in FY 2014.

Enforcement Activities

APHIS pursued enforcement action against many alleged violators of the HPA. APHIS' Investigative and Enforcement Services issued 1,255 official warnings and, in collaboration with the USDA's Office of General Counsel, pursued administrative enforcement actions against 36 alleged violators of the HPA. Beyond this, APHIS obtained 19 decisions and orders to resolve alleged violations of the HPA, which resulted in orders assessing \$4,200 in civil penalties and disqualifying 10 individuals from participating in HPA-regulated activities.

Outreach/Stakeholder Activities

APHIS presented an outreach exhibit display of the Horse Protection Program in December 2012 at the American Association of Equine Practitioners (AAEP) Annual Convention in Anaheim, California, as well as provided presentations on current inspection rates and technology updates. In addition, APHIS presented the Horse Protection Program in July 2013 at the American Veterinary Medical Association (AVMA) Annual Convention in Chicago, Illinois, in conjunction with the AAEP representatives.

Regulatory Changes

In June 2012, APHIS published a final rule in the *Federal Register* to revise the current HPA regulations, adding a mandated penalty protocol for all APHIS-certified HIO's for the consistent enforcement of the HPA. This final rule requires all HIO's, who have already been administering penalties as part of their role in enforcing the HPA, to

make their penalties equal to or exceed minimum levels. The penalties in this final rule increase in severity for repeat offenders to provide an additional deterrent for people who have already shown a willingness to violate the HPA. Three of the 12 HIO's did not comply with this new portion of the regulation. APHIS is currently pursuing decertification of these organizations through Administrative Law Judge procedures due to their non-compliance.

APHIS is responsible for implementing regulations to ensure the welfare of Tennessee Walking and Racking Horses and analyzing the potential impact of regulatory changes on affected entities. However, information is limited regarding the size, scale, and economic impact of the industry. Thus, to help address the current gaps in available information, APHIS conducted the Expert Elicitation in Support of the Economic Analysis of the Tennessee Walking and Racking Horse Industry. This study showed that further regulatory changes would not have an adverse economic impact the industry. This report can be viewed at the following website:

http://www.aphis.usda.gov/animal_welfare/hp/downloads/reports/APHIS%20TN%20Walking%20and%20Racking%20Horse%20EE%20final%20report.pdf

AGENCY MANAGEMENT

Current Activities: The Agency Management programs support the daily operations of APHIS and provide for a safe and secure work environment. These programs provide funding for the information technology and telecommunications infrastructure that gives Agency employees the tools they need to carry out their responsibilities. These programs also provide funding to oversee and implement precautionary security measures to ensure continued mission operations while ensuring the safety of APHIS people and facilities. In addition, these programs supports APHIS' contribution to the U.S. Department of State's continuing implementation of the Capital Security Cost Sharing program, which provides safe and secure workplaces for all U.S. government employees located overseas.

Selected Examples of Recent Progress in Agency Management:

1. APHIS Information Technology and Infrastructure

The APHIS Information Technology Infrastructure (AITI) program is comprised of the hardware, software, and telecommunications infrastructure that provides Agency employees with office automation tools, Internet access, and access to mission-critical programs and administrative applications. It also provides a robust, stable, and secure information infrastructure for those mission-critical applications and the day-to-day business of APHIS.

APHIS maintains, enhances, and operates the information technology infrastructure to support Agency business, conduct research and analysis, carry out administrative processes, record program activities and deliver program services. The AITI program objectives and priorities are to continually improve sharing of information across the Agency; improve coordination and accessibility of information, processes, and resources available to assist programs in emergencies; and, improve APHIS' cyber-security. The AITI program maintains annual software license and hardware agreements, as well as provides funding for Enterprise Infrastructure life-cycle replacement cost for enterprise hardware.

The FY 2013 accomplishments listed below support these objectives:

- License Renewal - APHIS supported a total number of 8,120 users with license renewals so that they can access and legally use the enterprise software in conducting business.
- Availability – APHIS supported internal and external stakeholders by providing optimal levels of service and improving customer service response times. The Agency continued to maintain 99.97 percent availability for its key computing systems.
- Security – APHIS completed the Assessment and Authorization for the Enterprise Infrastructure. This project authorized the risk management for the core computing resources for all APHIS employees and cooperators.

2. Physical Operational Security

APHIS oversees and implements precautionary measures to ensure continued, efficient mission operations, and protection from disruption, degradation, or destruction of its facilities through the Physical and Operational Security

(POS) program. The POS program provides year-round security measures, such as physical security upgrades, alarms, badging and identification systems, guard services, security assessments, safety and risk assessments, workplace violence training and investigations of both internal and external threats. These measures protect employees, visitors, and stakeholders from internal and external harm, acts of terrorism, and violence. In addition, this program supports APHIS' contribution to the U.S. Department of State's continuing implementation of the Capital Security Cost Sharing program, which provides safe and secure workplaces for all U.S. government employees located overseas.

The POS program provides numerous security trainings to Agency employees. During FY 2013, the program conducted 10 trainings for the Agency including self-defense seminars, safety briefings and refreshers, operations in high threat foreign environments/foreign travel briefings, and personally identifiable information trainings. The program developed and delivered security refresher trainings and weapons training, and used technology to provide required security training to more than 600 APHIS employees. Furthermore, the program ensures all Agency personnel are annually trained as required by Executive Order 13526, Classified National Security Information.

This program investigates, assesses, and mitigates all threats directed at Agency facilities, programs, and personnel. These threats include death threats, bomb threats, terrorist threats, and assaults among others. In FY 2013, the program's personnel investigated 70 workplace violence allegations, 40 external threats to APHIS employees, and upgraded 400 Agency facilities with controlled access to use Federal Smart Cards for building access. Additionally, APHIS security specialists consistently investigate threats, and respond to requests for protection throughout the country for APHIS veterinarians who enforce the Animal Welfare Act (AWA) and the Horse Protection Act (HPA) at horse shows. In FY 2013, the program provided security for APHIS employees enforcing regulation at 50 horse shows in 13 States and 20 inspections related to the AWA including two confiscations. The program has ensured the safety of APHIS employees and successfully enforced the HPA. As added protection for activities near the Mexican border, all employees working in Mexico received Global Positioning System emergency trackers to ensure their safety while working at or near the Mexican border.

APHIS works internally with other USDA agencies and with Federal partners such as the Department of Justice, the Department of Homeland Security, the Department of State, and local law enforcement agencies to ensure that the appropriate organization takes the lead, shares costs, and integrates security where co-location of employees exist. APHIS maintains a presence overseas to facilitate agricultural trade and monitor pest and disease threats, and the Agency is required by the Secure Embassy Construction Counterterrorism Act's Capital Cost Sharing Program to help fund the construction of New Embassy Compounds based on the number of authorized positions. In FY 2013, APHIS had 266 full time employees based in countries around the world. This program provides new, safe, and secure diplomatic facilities for APHIS' overseas presence. If the program were not funded, these measures would have to be implemented at the expense of other program operations necessary to maintain a safe work environment.

CONTINGENCY FUNDS

1. Feral Swine

In FY 2013, APHIS obligated approximately \$1 million in contingency funds for the pilot program to eliminate feral swine from the state of New Mexico, as well as to test several swine management techniques before implementing them on a national level. APHIS selected New Mexico for the pilot project because feral swine populations are generally low and the herds are geographically isolated, conditions that make elimination of swine possible and State and local entities have offered financial support of the project.

Feral swine inflict significant damage to property, agricultural crops, natural resources, and native ecosystems. They also represent a risk to domestic animal health and human health. Currently, the total aggregate cost of damage caused by feral swine in the United States is around \$1.5 billion annually, with more than half of that amount due to direct damage to agriculture. Cost and difficulty of damage management increase as populations increase and geographic range expands.

Feral swine are prolific animals and populations can grow rapidly. The number of feral swine is estimated to double to more than 10 million by 2017 nation-wide. In addition to expanding in population size, feral swine are expanding in geographic range. Feral swine populations in the United States, between 2004 and 2010, have expanded from 28 states to 36 states. New Mexico has seen an expansion of feral swine populations in just seven years. In 2005, feral swine were present in only two counties in New Mexico, but by 2012, feral swine were present in 17 counties.

In FY 2013, APHIS, in collaboration with Federal, State, and Tribal agencies, livestock producers, and local high school vocational agriculture students, removed 640 feral swine on properties totaling approximately 4.8 million acres in New Mexico. Rough estimates indicate that APHIS has conservatively reduced the number of offspring from these litters by an additional 1,800 piglets. This reduces the damage to property, agricultural crops, and natural resources as well as the threat to human health and animal health. At an average of \$200 per pig in property damage per year, the pilot program has already saved almost a half a million dollars in property damage for New Mexico residents. APHIS projects with continued efforts in New Mexico, APHIS and its partners could eliminate feral swine in the State within three to four years, saving millions of dollars in property damage and protecting human health, native wildlife, pets, domestic livestock and the environment.

Giant African Land Snail

In FY 2013, APHIS spent approximately \$723,000 in contingency funds to continue the Giant African Snail (GAS) eradication effort in Miami- Dade County, Florida. GAS can consume at least 500 types of plants including fruits and vegetables as well as ornamental plants. It can also cause structural damage to buildings by eating plaster and stucco to find the calcium required to grow its large shell. APHIS and the Florida Department of Agriculture and Consumer Services (FDACS) added 5 quarantine zones to the GAS regulated area in 2013, which brings the total number of quarantine zones to 18. Public outreach has been an important component of this program because each of the five quarantine zones added in 2013 resulted from reports to the GAS Helpline. APHIS detector dogs aided survey efforts in outlying areas in August 2013. APHIS also provided additional training for detector dogs managed by FDACS. Program officials have treated 605 properties within the quarantined zones and exterminated 134,907 snails. Because of its potential as a pest of nursery stock, APHIS and FDACS have surveyed 1,342 nurseries in the impacted areas. One nursery was positive for the snail and is cooperating with FDACS to ensure that the population is eliminated and not transmitted through nursery stock sales.

APHIS continues to coordinate with the Centers for Disease Control and Prevention (CDC) regarding GAS and its potential public health risk. GAS can carry the ratlung worm parasite, which can cause meningitis in humans. Meningitis in humans caused by GAS is rare, but CDC is analyzing samples to better understand the number of GAS in the Miami-Dade area that could possibly be a vector for transmitting the rat lungworm nematode.

SUMMARY OF FY 2013 CONTINGENCY FUND RELEASES

	Emergency/Activity	Releases from Contingency Fund in FY 2013	Total Obligations in FY 2013
1	Feral Swine	\$1,000,000	\$920,851
2	Giant African Land Snail	726,774 a/	722,977
	Total	\$1,726,774	\$1,643,828

a/ Amount was deobligated and available for obligation in FY 2013

EMERGENCY ACTIVITIES FUNDED BY TRANSFERS
FROM COMMODITY CREDIT CORPORATION (CCC)

1. Asian Longhorned Beetle

In FY 2013, APHIS spent approximately \$4.3 million in CCC funds to continue eradication activities targeting an Asian longhorned beetle infestation in Clermont County, Ohio. APHIS provided funds to the Ohio Department of Agriculture (ODA) through a cooperative agreement to continue delimiting the infestation and supporting contracts for tree removal and treatment of exposed trees in certain areas. APHIS projects to complete delimitation of the infested area by FY 2016. Completing delimiting surveys is essential to ensuring that all infested trees are found and removed and that the treatment and regulated areas are accurately defined. As of November 2013, approximately 54 square miles contain infested trees and APHIS is regulating approximately 61 square miles. In addition, the program has inspected 854,727 trees and removed 10,320 infested trees. In FY 2014, the ODA will continue delimitation activities. The program will continue removing infested trees and replanting trees, as well as applying preventative treatments to healthy trees in Monroe Township and Stonelick Townships. Ohio forests are a critical component of the State's natural resources and span nearly 8 million acres, or 30 percent of the State. More than 48 percent of Clermont County is covered by forest.

2. Bovine Tuberculosis

In 2013, APHIS spent approximately \$352,000 in CCC funding to support the bovine tuberculosis (TB) program in California and Michigan. In California, APHIS continued responding to the September 2011 detection of a large, TB-affected dairy herd by deploying a task force to assist with testing and epidemiologic investigations. In addition, the Agency indemnified owners for TB-exposed and TB-suspect cattle that were identified. In Michigan, APHIS continued to respond to the 2012 detection of two TB-affected herds in northeastern Michigan by indemnifying 28 owners for 90 head of TB-exposed and TB-suspect cattle. These animals were identified through testing associated with ongoing management plans for TB-affected herds and through epidemiologic investigations.

3. European Grapevine Moth

The European Grapevine Moth (EVGM) is a significant pest of grapes and other specialty crops. APHIS has worked collaboratively with the California Department of Food and Agriculture (CDFA), grape growers, counties, and others to eradicate this pest. In FY 2013, APHIS used \$529,857 in CCC funds on this pest via a cooperative agreement with CDFA. CDFA used the funds to support trapping for the pest, regulatory inspections, and residential vineyard treatments. This successful program has reduced the EGVM population by more than 99.99 percent since it was first detected. Of the 10 counties quarantined for the pest, APHIS and cooperators have released nine from regulation after two years of surveillance with no moth detections. Intensive survey and regulatory activities will continue in the remaining county (Napa).

4. Farm Bill

Through this program (established by the Food, Conservation, and Energy Act of 2008), APHIS makes available CCC funds for early plant pest detection and surveillance, identification and mitigation of plant pests and diseases, and technical assistance in the development and implementation of audit-based certification systems and nursery plant pest risk management systems. Since 2009, APHIS has funded more than 1,000 projects in 50 States and 2 U.S. territories, strengthening the Agency's and cooperators' abilities to protect U.S. agriculture and natural resources from foreign pest threats.

APHIS and cooperators have identified six major strategies to implement Section 10201: 1) enhancing plant pest/disease survey and analysis; 2) targeting domestic inspection activities at vulnerable points; 3) enhancing pest identification tools and technology; 4) developing programs to safeguard nursery production; 5) enhancing outreach and education; and 6) enhancing mitigation capabilities. The following are examples of activities funded in 2013.

APHIS funded 394 projects in the six goal areas through Section 10201 in FY 2013. Of the total \$47.4 million available in FY 2013, the Agency provided \$27.9 million to 50 State departments of agriculture and 2 territories for 218 projects, \$8.3 million to academia for 78 projects, \$0.8 million to Tribes for 9 projects, and \$2.1 million for non-profits and private entities for 17 projects. The remaining funding supported projects in either APHIS or other Federal agencies that have a multi-State or national impact. These included training and deployment of canine teams to cooperators, developing survey methodology, procuring traps and lures that APHIS distributed nationwide to cooperators in many pest programs, outreach efforts to inform the public and make them aware of invasive plant pests, and supported development of an improved data management system for use by States and territories, other cooperators, and APHIS, as examples.

Under the enhancing pest/disease survey and analysis goal, APHIS funded 151 commodity- and taxon-based surveys in 46 States and territories. The program targeted 69 high-risk pests of national concern in specialty-crop surveys in apple, citrus, grape, orchard crops, palm, solanaceous crops, and stone fruits, in addition to Asian Defoliators, Honey Bee pests, Mollusk, and Khapra beetle surveys, among others. All survey results were negative for these high-risk pests, which demonstrates the United States is free of these pests and allows international trade to continue. The program also continued cooperative projects to analyze relative risk of invasive species at the county level and patterns of introduction of commodities into the country that put specialty crops at risk to exotic invasive pests and developed risk and economic assessment tools to help determine survey priorities. The program provided more than \$18 million to 174 projects in this goal area.

The second goal involves efforts to target domestic inspection activities at vulnerable points that result from the movement of commodities potentially carrying pests of regulatory significance. Under this goal, APHIS provided funds to train and place canine teams for domestic surveys in California and Florida. These teams are used for the enhancement of the States' efforts to mitigate pests that escape undetected through ports of entry and, in some cases, as a consequence of unauthorized movement of regulated and illegal goods. For example, the program supported 13 canine teams in California and 4 teams in Florida to enhance detection efforts at parcel facilities (such as FedEx). Between July 2012 and June 2013, the dogs alerted on 37,977 total marked and unmarked parcels containing agricultural items such as leis, prohibited fruit, and prohibited aquatic plants like hydrilla (an invasive species that can clog waterways). These inspections resulted in the detection of 132 actionable pests, including Asian citrus psyllid on curry leaves, scale insects, mealybugs, economically significant nematodes and others. These detector dogs also assisted in surveys for the Giant African snail in the Miami-Dade county area in 2013. Other projects in 2013 provided funds to monitor critical entry points in Texas and Florida and other biosecurity initiatives, such as surveys around warehouses and other sites where invasive pests are likely to be present. The program provided approximately \$6.2 million for 13 projects in this goal area.

Under the pest identification tools and technology goal, one key project is the National Survey Supply Program that oversees timely procurement and delivery of quality survey supplies, such as traps and lures, to APHIS and State cooperators. In FY 2013, the Survey Supply Program procured and is in the process of distributing 451,835 traps and lures that target exotic pests to all 50 States and a few territories. Other projects include the continued enhancement of taxonomic and molecular diagnostic capacity, including diagnostic training in high risk states, and a variety of projects aimed at providing more precise and faster detection and identification tools for citrus pests and diseases and other high risk pests. APHIS provided more than \$5 million for 69 projects in support of this goal.

Under the nursery safeguarding goal, APHIS focused on developing science-based best management practices and risk mitigation practices to exclude, contain, and control regulated pests from the nursery production chain, and developed and harmonized audit-based nursery certification programs. Primary areas of focus include ongoing work on control and management practices for *Phytophthora ramorum* at the National Ornamentals Research Site at the Dominican University of California. The project managers have identified some of the critical control points in nursery settings at which good management techniques might be applied to manage or control *P. ramorum* as well as improved methods in areas such as soil treatments, water treatments, and the use of fungicides to increase confidence in a systems approach to pest management. Other projects include continuing broad-based initiatives that support the development of audit-based systems for safeguarding nursery production, and State initiatives to develop and pilot harmonized nursery stock certification programs for economically important and high-risk specialty crops, such as fruit trees, blueberries, and strawberries. These projects are resulting in a better understanding of existing standards for pest mitigation in nursery settings, proposed draft standards that might be

used by cooperators to improve their existing processes or for those interested in developing such standards for their use, and collaboration among the specialty crop groups looking at similarities of process among them that could be applied to multiple-crop systems. The program provided approximately \$2 million for 22 projects in this goal area.

Under the outreach and education goal, projects include the continued development and deployment of several eLearning modules to increase pest screening and diagnostic capacity of first detectors, continued development and enhancement of a Sentinel Plant Network with public gardens, and, enhancement of a national public information campaign to increase awareness among the general public of invasive pest issues. For example, APHIS continues to support an initiative to enlist the public in detecting exotic forest pests as part of a Forest Pest Outreach and Survey Program and continues to promote the “Don’t Move Firewood” message to help prevent the spread of the emerald ash borer and other invasive forest pests. The number of States participating in the Forest Pest Outreach and Survey program has expanded from 9 to 26 since 2009 and the number of tribal partners has grown as well. To better support future forest pest outreach projects, the program supported a behavioral science study to determine the effectiveness of firewood messaging. The program supports a variety of other activities to educate the public, Tribal, and industry partners, including training on what to look for and how to report suspicious sightings of pests, conducting emergency exercises or outreach in Tribal areas, and engaging youth in invasive species detection. Overall, APHIS provided approximately \$3.6 million for 46 projects in this goal area.

Under the goal of enhancing mitigation capabilities, APHIS provides technical assistance prior to, during, and immediately following a plant pest outbreak through the development of New Pest Response Guidelines and through immediate mitigation efforts. Some of these efforts include brown marmorated stink bug and cactus moth mitigation, gypsy moth control, mollusk mitigation, and European grapevine moth in California, Mexican Fruit Fly eradication in Texas, citrus greening in Texas, and citrus canker response in Louisiana. The Agency also supported projects to develop strategies for mitigation and/or control of high risk pests. APHIS provided \$11.9 million for 70 projects in this goal area.

SUMMARY OF KEY FY 2013 CCC FUNDED EMERGENCY ACTIVITIES

	Emergency/Activity	Total Available in FY 2013 a/	Total Obligations in FY 2013
1	Asian Longhorned Beetle	\$5,283,540	\$4,283,236
2	Bovine Tuberculosis	2,485,957	351,961
3	European Grapevine Moth	2,659,872	529,857
4	Farm Bill	47,894,995	47,007,721
	Total	\$58,324,364	\$52,172,775

a/ Total Available includes account recoveries, where applicable.

ANIMAL AND PLANT HEALTH INSPECTION SERVICE

The estimates include proposed changes in the language of this item as follows: (new language is underscored; deleted matter is enclosed in brackets):

Buildings and Facilities:

For plans, construction, repair, preventive maintenance, environmental support, improvement, extension, alteration, and purchase of fixed equipment or facilities, as authorized by 7 U.S.C. 2250, and acquisition of land as authorized by 7 U.S.C. 428a, \$3,175,000, to remain available until expended.

ANIMAL AND PLANT HEALTH INSPECTION SERVICE

Buildings and Facilities
Lead-off Tabular Statement

Budget Estimate, 2015.....	\$3,175,000
2014 Enacted.....	3,175,000
Change in Appropriation.....	<u>0</u>

Summary of Increases and Decreases
(Dollars in thousands)

Program	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2015</u>
	<u>Actual</u>	<u>Change</u>	<u>Change</u>	<u>Change</u>	<u>Estimate</u>
Discretionary Appropriations:					
Basic buildings and facilities repair, alterations, and preventive maintenance.....	\$3,200	-\$272	+\$247	0	\$3,175
Total Appropriation or Change.....	<u>3,200</u>	<u>-272</u>	<u>+247</u>	<u>0</u>	<u>3,175</u>

Project Statement
Appropriations Detail and Staff Years (SYs)
(On basis of appropriation)
(Dollars in thousands)

Program	<u>2012 Actual</u>		<u>2013 Actual</u>		<u>2014 Estimate</u>		<u>2015 Estimate</u>	
	Amount	SYs	Amount	SYs	Amount	SYs	Amount	SYs
Discretionary Appropriations:								
Buildings and Facilities.....	\$3,200	-	\$3,175	-	\$3,175	-	\$3,175	-
Rescission P.L. 113-6.....	-	-	-86	-	-	-	-	-
Sequester P.L. 113-6.....	-	-	-161	-	-	-	-	-
Total Appropriations.....	<u>3,200</u>	<u>-</u>	<u>2,928</u>	<u>-</u>	<u>3,175</u>	<u>-</u>	<u>3,175</u>	<u>-</u>
Balance available, SOY	1,469	-	1,046	-	2,852	-	3,277	-
Recoveries.....	10	-	12	-	-	-	-	-
Total Available.....	<u>4,679</u>	<u>-</u>	<u>3,986</u>	<u>-</u>	<u>6,027</u>	<u>-</u>	<u>6,452</u>	<u>-</u>
Balance available, EOY	-1,046	-	-2,852	-	-3,277	-	-3,702	-
Total Obligations.....	<u>3,633</u>	<u>-</u>	<u>1,135</u>	<u>-</u>	<u>2,750</u>	<u>-</u>	<u>2,750</u>	<u>-</u>

Project Statement
Obligations Detail and Staff Years (SYs)
(Dollars in thousands)

Program	<u>2012 Actual</u>		<u>2013 Actual</u>		<u>2014 Estimate</u>		<u>2015 Estimate</u>	
	Amount	SYs	Amount	SYs	Amount	SYs	Amount	SYs
Discretionary Obligations:								
Buildings and Facilities.....	\$3,633	-	\$1,135	-	\$2,750	-	\$2,750	-
Recoveries.....	-10	-	-12	-	-	-	-	-
Balance available, EOY	1,046	-	2,852	-	3,277	-	3,702	-
Total Available.....	<u>4,669</u>	<u>-</u>	<u>3,974</u>	<u>-</u>	<u>6,027</u>	<u>-</u>	<u>6,452</u>	<u>-</u>
Balance available, SOY	-1,469	-	-1,046	-	-2,852	-	-3,277	-
Rescission P.L. 112-10	-	-	86	-	-	-	-	-
Sequester P.L. 113-6.....	-	-	161	-	-	-	-	-
Total Appropriations.....	<u>3,200</u>	<u>-</u>	<u>3,175</u>	<u>-</u>	<u>3,175</u>	<u>-</u>	<u>3,175</u>	<u>-</u>

ANIMAL AND PLANT HEALTH INSPECTION SERVICE

Justification of Increases and Decreases Buildings and Facilities

\$3,175,000 requested for the Buildings and Facilities program (\$3,175,000 available in 2014).

The Buildings and Facilities (B&F) program addresses APHIS' facility needs to support the Agency's mission of protecting the health and value of agriculture and natural resources nationwide. The program's goal is to systematically address the Agency's needs for maintaining and repairing existing facilities, as well as constructing new facilities. Projects are driven by APHIS' Facility Condition Index (FCI), which is the sum of the costs of needed repairs divided by the replacement value of the facility. APHIS strives to maintain an FCI for facilities assessed of less than 0.20, meaning that the cost to make repairs is less than 20 percent of the estimated replacement value for the facilities.

This program serves a vital role in maintaining APHIS' facilities so that employees can continue to carry out their responsibilities in a safe and efficient manner. The commitment to maintain the condition and functionality of facilities is an ongoing process that demands significant management of capital resources. This program creates private sector jobs through the construction projects it carries out. If the B&F program was not funded, APHIS would be unable to centrally coordinate and prioritize these types of projects. As a result, necessary maintenance and repairs to facilities would not occur unless funded at the expense of an Agency operational activity. This could create program delays, possible environmental consequences, and noncompliance with State and local laws and codes. In addition, it would accelerate the pace of the deferred maintenance backlog and associated cost, which currently exceeds \$150 million. Many of APHIS' facilities have specialized functions that support various Federal, State, and local government programs; stakeholders; and customers. B&F projects ensure that APHIS' programs can be conducted at safe, secure, sound, sustainable and high-performance facilities that support APHIS' mission. The Agency's goal for its facilities is the implementation of scheduled improvements, security, construction, and maintenance. Contractors perform inspections and tests to substantiate that the supplies or services furnished under the contract conform to contract requirements. In addition, a design firm validates that the work aligns with approved plans and specifications. APHIS typically identifies on-site certified personnel to perform the contracting services. The Agency's engineering staff attends on-site construction progress meetings, and APHIS collects performance data through contractor reports and on-site verification.

In recent years, the program has used available funds more efficiently through comprehensive construction projects. For example, the program achieved significant cost savings by using the same contractor for two separate construction projects—one targeting safety improvements and other an expansion of space—at a laboratory in Massachusetts. APHIS completed both projects four months ahead of schedule for \$700,000 less than the contractor's initial proposal. FY 2015 priorities include continuing to address an underutilized building at the National Centers for Animal Health in Ames, Iowa. APHIS recently separated the building's wiring from surrounding buildings that were still in use and is considering the best use for the facility. In addition, APHIS will continue to address health and safety needs at the National Wildlife Research Center field station in Gainesville, Florida. This includes updating exhaust and fire alarm systems, removing hazardous materials, and implementing improvements to comply with Americans with Disabilities Act requirements. The Agency will also use FY 2015 funds to conduct facility condition assessments at 8 APHIS facilities.

As of January 2014, there are 52 active B&F projects for APHIS facilities. In FY 2013, APHIS awarded 13 design/construction projects at a cost of approximately \$1.1 million and completed 30 construction projects repairs. Approximately half of these repairs were major renovations and half were minor repairs.

Approximately 99 percent of the program funding supports indefinite delivery indefinite quantity contracts and construction contracts. These contracts, which provide for an indefinite quantity of supplies or services during a fixed time period, help streamline the contract process and expedite service delivery. The remaining funds support operating costs.

ANIMAL AND PLANT HEALTH INSPECTION SERVICE

Buildings and Facilities

Geographic Breakdown of Obligations and Staff Years (SYs)
(Dollars in thousands)

State/Territory	<u>2012 Actual</u>		<u>2013 Actual</u>		<u>2014 Estimate</u>		<u>2015 Estimate</u>	
	Amount	SYs	Amount	SYs	Amount	SYs	Amount	SYs
<u>United States:</u>								
Arizona.....	\$39	-	-	-	-	-	-	-
California.....	-	-	-	-	\$46	-	\$46	-
Colorado.....	-	-	\$158	-	-	-	-	-
Florida.....	25	-	351	-	350	-	350	-
Hawaii.....	47	-	23	-	-	-	-	-
Iowa.....	-	-	135	-	260	-	260	-
Maryland.....	-	-	-	-	46	-	46	-
Massachusetts.....	46	-	170	-	-	-	-	-
Michigan.....	-	-	30	-	-	-	-	-
Mississippi.....	-	-	-	-	46	-	46	-
Nevada.....	100	-	-	-	-	-	-	-
New York.....	3,095	-	47	-	-	-	-	-
North Carolina.....	58	-	-	-	-	-	-	-
Texas.....	140	-	150	-	637	-	637	-
Wyoming.....	18	-	-	-	-	-	-	-
Puerto Rico.....	-	-	-	-	46	-	46	-
Mexico.....	16	-	71	-	695	-	695	-
<u>Central America:</u>								
Panama.....	12	-	-	-	453	-	453	-
Guatemala.....	-	-	-	-	171	-	171	-
<u>Asia/Pacific:</u>								
Korea.....	37	-	-	-	-	-	-	-
Total direct obligations	\$3,633	-	\$1,135	-	\$2,750	-	\$2,750	-

ANIMAL AND PLANT HEALTH INSPECTION SERVICE

Buildings and Facilities

Classification by Objects

(Dollars in thousands)

		2012	2013	2014	2015
		<u>Actual</u>	<u>Actual</u>	<u>Estimate</u>	<u>Estimate</u>
Other Objects:					
25	Other Services.....	\$3,533	\$1,135	\$2,750	\$2,750
32	Land & structure.....	100	-	-	-
	Total, other objects.....	3,633	1,135	2,750	2,750
	Total direct obligations.....	\$3,633	\$1,135	\$2,750	\$2,750

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ANIMAL AND PLANT HEALTH INSPECTION SERVICE

BUILDINGS AND FACILITIES

STATUS OF MAJOR CONSTRUCTION PROJECTS

The Buildings and Facilities (B&F) appropriation funds major, nonrecurring construction projects in support of program activities, and recurring construction, alterations, and repairs of existing facilities, allowing other programs and employees to focus on the Agency's mission of protecting the health and value of agriculture and natural resources nationwide. The program's goal is to systematically address the Agency's needs for maintaining and repairing existing facilities, as well as constructing new facilities. Projects are driven by APHIS' Facility Condition Index (FCI), which is the sum of the costs of needed repairs divided by the replacement value of the facility. Each asset is assigned an FCI. APHIS strives to maintain an FCI for facilities assessed of less than 0.10, meaning that the cost to make repairs is less than 10 percent of the estimated replacement value for the facilities.

This program serves a vital role in maintaining APHIS' facilities so that employees can continue to carry out their responsibilities in a safe and efficient manner. Maintaining the condition and functionality of these facilities is an ongoing process that demands significant management of capital resources. This program creates private sector jobs through the construction projects it carries out. If the B&F program was not funded, APHIS would be unable to centrally coordinate and prioritize these projects. As a result, necessary maintenance and repairs to facilities would have to be funded at the expense of an Agency operational activity. This could create program delays, possible environmental consequences, and potentially jeopardize human health and safety. In addition, it would accelerate the pace of the deferred maintenance backlog and associated cost, which currently exceeds \$120 million. Many of APHIS' facilities have specialized functions that support various Federal, State and local government programs, stakeholders and customers. B&F projects ensure that APHIS' programs can be conducted at safe, secure, sound, sustainable and high-performance facilities that support the Agency's mission.

This program works to increase efficiency through more comprehensive construction projects. Approximately 99 percent of the program funding supports indefinite delivery, indefinite quantity contracts, and construction contracts. These contracts, which provide for an indefinite quantity of supplies or services during a fixed time period, help streamline the contract process and speed service delivery. The remaining funds support information technology projects.

The following provides a status of ongoing major construction projects as of September 2013.

Summary of Current Projects

The Agency's performance goal for our facilities is to implement the scheduled improvements, security, construction, and maintenance. Contractors perform inspections and tests to substantiate that the supplies or services furnished under the contract conform to contract requirements. In addition, a design firm validates that the work aligns with approved plans and specifications. APHIS typically identifies on-site certified personnel to perform the contracting services. The Agency's engineering staff attends on-site construction progress meetings, and APHIS collects performance data through contractor reports and on-site verification. As of October 2013, there are 52 active projects. In FY 2013, APHIS awarded 13 design/construction projects at a cost of approximately \$1.1 million and completed 30 construction projects repairs. Approximately half of these repairs were major renovations and half were minor repairs.

Facilities Condition Assessment

In 2000, APHIS embarked upon a comprehensive Facilities Condition Assessment program to: better understand the condition of facilities, strategically maintain them by identifying deficiencies and funding needs, stabilize the facilities repair backlog, predict maintenance needs, and implement financial management and capital asset improvement efforts. The consulting firm tasked with assessing APHIS' facilities has automated a standard process for assessing the relative condition of assets, and facilitating comparisons both within and among facilities. The consulting firm calculates an FCI for each facility by program and agency. At the end of FY 2013, the FCI for the 47 facilities assessed was 0.19; the cost to correct currently identified and anticipated deficiencies is 19 percent of

the estimated replacement value for the 47 facilities. Of these 47 facilities, 31 scored above a 0.10 and 16 scored below a 0.10. The Agency strives to maintain an FCI below 0.10.

National Wildlife Research Center Field Station & Wildlife Services State Director's Office - Modernization, Gainesville, FL

The 2011 APHIS National Wildlife Research Center (NWRC) Research Needs Assessment found that Federal, State, and private respondents each ranked feral swine as their top priority research need. The current laboratory at the Florida Field Station addressing feral swine and other wildlife diseases is inadequate and lacking in terms of space, infrastructure, and capacity to support activities there. Specifically, significant renovations are needed to address the identified life and safety deficiencies (e.g., asbestos containing materials, laboratory exhaust systems, fire alarm and suppression), bring the facility into compliance with the ADA, address other urgent facility requirements included in the Facility Condition Reassessment & Green Building Assessment Final Report, and to modernize business practices within the facility. The facility's current FCI is 0.20. In FY 2013, APHIS tasked an architectural and engineering firm with developing a program of requirements with respect to this modernization project. APHIS anticipates awarding the Design-Build Construction contract during the beginning of FY 2014.

ANIMAL AND PLANT HEALTH INSPECTION SERVICE

Summary of Budget and Performance Statement of Agency Goals and Objectives

The Secretary of Agriculture established the Animal and Plant Health Inspection Service (APHIS) on April 2, 1972, under the authority of Reorganization Plan No. 2 of 1953 and other authorities. The mission of the Agency is to protect the health and value of U.S. agricultural and other plant and animal resources, vulnerable to pests, diseases, predation, natural disasters, or inhumane treatment. In carrying out this mission, the role of APHIS is to collectively do what individuals and individual organizations cannot do; for example, responding to animal and plant pest and disease emergencies, dealing with widespread pests and diseases, and dealing with foreign governments to mitigate trade issues and barriers.

Together with its stakeholders, APHIS protects the health of livestock, poultry, and crops from pests and diseases. The Agency also helps to promote animal welfare, mitigates agricultural damage caused by wildlife, defends the environment from invasive species, regulates the movement and release of specific genetically engineered organisms, protects natural resources, and ensures public health and safety. The primary focus of protecting America's agriculture stems from the underlying premise that health and profitable agriculture is good for America. It creates jobs, feeds the world, and it is good for the economy.

APHIS has six strategic goals and sixteen strategic objectives that contribute towards the Secretary's priority goals.

USDA Strategic Goals: Assist Rural Communities to Create Prosperity So They Are Self-Sustaining, Repopulating, and Economically Thriving. Ensure That All of America's Children Have Access to Safe, Nutritious, and Balanced Meals.

USDA Strategic Objectives: 1.1: Enhance rural prosperity, including leveraging capital markets to increase government's investment in rural America. 4.4: Protect agricultural health by minimizing major diseases and pests to ensure access to safe, plentiful, and nutritious food.

Agency Strategic Goal	Agency Objectives	Programs that Contribute	Key Outcome
<u>Goal 1:</u> Prevent the entry and spread of agricultural pests and diseases.	<u>Objective 1.1:</u> Work with foreign governments and partners to keep damaging pests and diseases from entering the United States. <u>Objective 1.2:</u> Work with foreign governments and partners to prevent the spread of damaging pests and diseases.	• Agriculture Quarantine Inspection • Cattle Health • Cotton Pests • Specialty Crop Pests • Veterinary Diagnostics	Reduce or mitigate the impact of agricultural pests and diseases by preventing the entry or spread of agricultural pests and diseases.

Key Outcome: Reduce or mitigate the impact of agricultural pests and diseases by preventing the entry or spread of agricultural pests and diseases.

Key Performance Measures and Targets:

APHIS protects U.S. livestock, poultry, specialty crops, corn, cotton, and wheat industries worth more than \$167 billion. U.S. agriculture as a whole supports 1 in 12 jobs and provides U.S. consumers with 83 percent of the food we consume. APHIS' pest and disease prevention efforts help ensure that U.S. farms and ranches remain healthy and productive by keeping devastating pests and diseases from entering the country. APHIS works with many partners, including the U.S. Department of Homeland Security's Customs and Border Protection (CBP), foreign governments, State departments of agriculture, and a variety of other U.S. government agencies on these prevention programs that help ensure U.S. and international consumers have access to safe, nutritious food. For example, APHIS works jointly with CBP to provide for inspections of imported animal, plant, and other agricultural goods,

products, and other articles at U.S. ports of entry to prevent the introduction of harmful agricultural pests and diseases. APHIS also conducts inspections of passenger baggage and cargo leaving Hawaii and Puerto Rico for the continental United States.

APHIS cooperates with foreign governments to prevent the northward spread of two extremely destructive pests into the United States—screwworm from South America and the Mediterranean fruit fly (Medfly) from Central America. In 1976, a screwworm outbreak in Texas resulted in an estimated \$113 to \$150 million in losses. Nearly four decades later, screwworm damage has been contained because of the APHIS preventative program. This program continues to keep this serious pest away from U.S. livestock by maintaining a barrier against it in Panama through the use of sterile insect technology. Medfly has one of the widest host ranges of any fruit fly pest and is considered one of the most serious agricultural pests in the world. The pest especially threatens high-value specialty crops such as citrus and tree fruit. Maintaining barriers to prevent this pest from entering the United States is imperative, especially considering increasing U.S. consumer demand for imported fruits and vegetables in recent years. In FY 2015, APHIS will continue efforts to prevent the reestablishment of screwworm in the United States by working with Panama, Mexico, and Central American countries to maintain a screwworm-free barrier zone in the Darien Gap, a narrow 102-mile stretch of jungle along the border of Colombia and Panama. The Agency will also continue to work with foreign partners to prevent the spread of the Medfly into the United States. APHIS also cooperates with the Mexican government to eradicate two devastating cotton diseases (the boll weevil and pink bollworm) and prevent them spreading into areas in the United States adjacent to the border. Other activities include maintaining a quarantine buffer in Texas against the spread of cattle fever ticks and diseases such as bovine babesiosis and working with Mexico to control Mexican fruit fly outbreaks along the border that threaten Texas citrus production.

APHIS provides international leadership to mitigate the global spread of pests and diseases through a variety of partnerships and international organizations. For example, APHIS serves as the World Organization for Animal Health (OIE) reference laboratory for 13 diseases through the National Veterinary Services Laboratories (NVSL). NVSL's services improve science-based decisions in animal disease detection and quarantine, which in turn result in minimizing impacts and disruptions to important domestic and international export markets. APHIS will use its expertise and show leadership through partnering with other reference laboratories around the world and work with other countries, such as Canada and Mexico, to harmonize diagnostic methods.

Performance Measure	2010 Actual	2011 Actual	2012 Actual	2013 Actual	2014 Target	2015 Target
Value of specialty crops directly protected by APHIS' Specialty Crop Pests program	N/A	N/A	\$11.48 billion	\$11.48 billion	\$11.48 billion	\$11.48 billion
Damage prevented by the APHIS Screwworm program on an annual basis	N/A	N/A	\$53 million	\$53 million	\$53 million	\$53 million
Number of sterile Medfly pupae produced weekly	1 billion	1billion	0.8 billion	1 billion	1 billion	1 billion

Selected Past Accomplishments Toward Achievement of the Key Outcome:

- Conducted 25,301 inspections of individual premises for cattle fever ticks, including 7,406 river trail patrols in FY 2013.
- Expanded the Medfly-free zone in Mexico and Guatemala from approximately 142,000 square kilometers to more than 145,000 square kilometers in FY 2013.
- Inspected more than 22,000 imported plant shipments containing 1.3 billion plant units (cuttings, whole plants, or other propagative materials) and approximately 1,777,000 kilograms of seeds at APHIS Plant Inspection Stations in FY 2013.

Selected Accomplishments Expected at the FY 2015 Proposed Resource Level:

- Continue to work with the Governments of Mexico and Guatemala to maintain a barrier against the northward spread of Medfly.
- Continue to address the last known boll weevil infested area (in Texas) in cooperation with Mexico on its side of the border while maintaining the eradication progress made to date.
- Continue to work with the U.S.-Panamanian Commission to maintain the screwworm barrier at the Darien gap of Panama.

USDA Strategic Goal: Assist Rural Communities to Create Prosperity So They Are Self-Sustaining, Repopulating, and Economically Thriving.

USDA Strategic Objective: 1.1: Enhance rural prosperity, including leveraging capital markets to increase government's investment in rural America.

Agency Strategic Goal	Agency Objectives	Programs that Contribute	Key Outcome
Goal 2. Ensure the humane care and treatment of vulnerable animals.	<u>Objective 2.1:</u> Improve the welfare of animals covered under the Animal Welfare Act. <u>Objective 2.2:</u> Reduce the detection of horse soring in the Tennessee walking horse industry.	• Animal Welfare • Horse Protection	Provide modern and collaborative tools and services to protect the welfare of animals.

Key Outcome: Provide modern and collaborative tools and services to protect the welfare of animals.

Key Performance Measures and Targets:

The welfare of animals nationwide continues to attract significant media attention and passionate public engagement. Front and center in the dialogue has been APHIS, which plays the unique Federal role of ensuring the humane care and treatment of millions of animals covered by the Animal Welfare Act (AWA) and the Horse Protection Act. Twenty-seven States, the District of Columbia, and a number of municipalities have enacted laws establishing some form of humane welfare standards for animals. However, none of these laws address all categories of welfare required under the AWA, including veterinary care, food and water, proper sanitation, and housing. Consequently, Federal oversight is necessary to ensure that AWA regulations are consistently applied in all States.

APHIS oversees more than 7,400 licensees and registrants associated with more than 15,710 facilities regulated under the AWA. APHIS inspects facilities (with a focus on re-inspecting problem facilities), educates regulated entities, provides detailed training for inspectors, investigates complaints, and pursues civil penalties and other enforcement measures when necessary. Together, these efforts yielded impressive results: regulated entities maintained an average 95 percent compliance rate with the AWA in the past 5 years. APHIS' goal is to maintain the high rate of AWA compliance in FY 2015. New AWA licensees and registrants present a unique opportunity for APHIS to have a lasting impact on the way they care for their animals and improve program efficiency. APHIS has increased the rigor of its pre-licensing program for dog dealers to ensure that prospective licensees fully understand the AWA's requirements before obtaining a license, which reduces overall noncompliance over time. The program is tailored to the individual licensee based on an initial discussion, the condition of the facility during the first visit, and developing individualized materials and presentations that focus on specific aspects or issues at each facility. APHIS is implementing data collection mechanisms in FY 2014 to track the compliance of facilities within a year of receiving their license or registration.

Also of note are additional efforts APHIS has made to build trusting, collaborative relationships with new and old partners. For example, APHIS has been reaching out to the Amish and Mennonite communities (which are entering

the commercial dog breeder/dealer arena in greater numbers) to help them understand their obligations under the AWA, help identify unlicensed facilities, and more. This is part of a greater effort to improve collaborations with State and local pet breeder associations to leverage limited resources and network with potential licensees. These partnerships will continue to be essential in light of the publication of a final rule that revised the definition of “retail pet store” in the AWA regulations to close a loophole of pets sold sight unseen over the Internet and via phone- and mail-based businesses. In FY 2015, APHIS will continue to focus on conducting quality inspections and collecting thorough documentation and evidence during inspections.

A similar rationale applies to APHIS’ enforcement of the Horse Protection Act (HPA). The HPA prohibits the showing, sale, auction, exhibition, or transport of horses that have been “sored”—subjected to chemical or mechanical irritants that irritate or blister a horse’s forelegs, causing a high-stepping gait that provides a competitive edge. As with the AWA, APHIS enforces the HPA through a regimen of inspections and pursuit of appropriate measures to address noncompliances. APHIS inspectors, along with designated qualified person (DQP) inspectors, inspect all horse entries at HPA-events. A DQP inspector is a person who is delegated authority by the management of a horse event to inspect horses for soring according to the HPA. A Horse Industry Organization (HIO), certified by the USDA, licenses DQP inspectors. In FY 2013, APHIS and DQP inspectors examined more than 38,000 horses at 288 HPA-events across the United States. APHIS anticipates that with the introduction of greater program efficiencies we can conduct inspections at more shows and improve the show horse industry’s compliance with the HPA. APHIS will increase the percent reduction in detections of soring in horses protected by the HPA from 30 percent in FY 2013 to 50 percent in FY 2015.

Performance Measure	2010 Actual	2011 Actual	2012 Actual	2013 Actual	2014 Target	2015 Target
Percent of licensees inspected and registrants in substantial compliance of the Animal Welfare Act	95%	98%	95%	96%	97%	97%
Percent of facilities determined to be in substantial compliance at the first unannounced inspection after receiving a license (conducted 6-9 months later)	N/A	N/A	N/A	N/A	Baseline	TBD
Percent reduction in detections of soring in horses protected by the Horse Protection Act 1/	N/A	N/A	26%	30%	40%	50%

1/ As compliance increases due to APHIS’ enforcement efforts, the percentage of detections is expected to drop.

Selected Past Accomplishments Toward Achievement of the Key Outcome:

- Exceeded the Agency projected average compliance rate for regulated entities under the AWA.
- Updated regulations and revised the definition of “retail pet store” to respond to public concern about the lack of oversight of the health and humane treatment of dogs and other pests sold “sight unseen”.
- Updated regulations to require APHIS-certified HIO’s to adjust their penalties to be equal to or exceed minimum levels, increasing in severity for repeat offenders to provide an additional deterrent for people who have already shown a willingness to violate the HPA.

Selected Accomplishments Expected at the FY 2015 Proposed Resource Level:

- Maintain the high compliance rate of 95 percent for AWA regulated entities.
- Reduce the number of non-compliances identified during an animal welfare inspection.
- Expand the use of foreign substance testing and soring detection technologies during the HPA inspection process.

USDA Strategic Goal: Ensure that our National Forests and Private Working Lands Are Conserved, Restored, and Made More Resilient to Climate Change, While Enhancing Our Water Resources.

USDA Strategic Objective: 2.1 Improve the health of the nation's forests, grasslands, and working lands by managing our natural resources.

Agency Strategic Goal	Agency Objectives	Programs that Contribute	Key Outcome
<u>Goal 3.</u> Protect forests, urban landscapes, rangelands and other natural resources, as well as private working lands from harmful pests and diseases.	<u>Objective 3.1:</u> Reduce damage to valuable natural and agricultural resources caused by plant pests and diseases. <u>Objective 3.2:</u> Reduce damage to valuable natural and agricultural resources caused by wildlife.	• Field Crop and Rangeland Ecosystems • Tree and Wood Pests • Wildlife Damage Management • Wildlife Service Methods Development	Provide tools and services to protect forests, urban landscapes, rangelands and other natural resources, as well as private working lands from harmful pests and diseases.

Key Outcome: Provide tools and services to protect forests, urban landscapes, rangelands and other natural resources, as well as private working lands from harmful pests and diseases.

Key Performance Measures and Targets:

America's forests, rangelands, and other working lands are valuable resources that provide jobs, support ranches, provide habitat for wildlife, and create recreation opportunities. U.S. forests alone provide economic opportunities and ecosystem services worth an estimated \$1.2 trillion. APHIS coordinates national programs that target damage caused by the Asian longhorned beetle (ALB), emerald ash borer, gypsy moth, grasshopper and Mormon cricket outbreaks, thousand cankers disease, depredation from migratory birds, and damage from other wildlife such as beavers and deer. Together, APHIS and key partners focus on preventing the spread of pests and diseases and mitigating damage they cause. Specific activities include: conducting pest surveys and inspections to more accurately delimit the infestation of specific pests and diseases and wildlife; developing and implementing control strategies; conducting eradication efforts where appropriate, such as removing or treating host trees or problem wildlife; conducting public outreach and education to enlist the public's support for these efforts; developing predictive analytical tools and risk-based models to inform trapping and survey work; and establishing new regulatory frameworks to minimize negative impacts on regulated business in quarantine areas, while still protecting American forests and rangelands from the spread of these harmful events. The following are highlights of these cooperative efforts.

Trees provide environmental value as forest and natural canopy and economic value when used in production of wood products. Trees are also an integral part of urban and suburban neighborhoods. ALB threatens forest resources nationwide, as 30 percent of U.S. trees are potential ALB hosts. APHIS is working to eliminate ALB from the United States as a whole; longstanding strategies and collaborations have proven successful as APHIS and other Federal and State partners have eradicated ALB outbreaks from Chicago, Illinois; Islip, Staten Island and Manhattan in New York; and Jersey City and Union and Middlesex Counties, New Jersey. These successes prevented multi-billion dollar losses to urban and suburban communities and the maple syrup, timber, tree nursery, trade and tourism industries. APHIS is continuing to address outbreaks in New York, Massachusetts, and Ohio. Although the program has been successful, APHIS and its cooperators continue to improve program delivery and to create more efficient projects. For example, APHIS and cooperators modified both ALB survey and control protocols, resulting in more efficient use of resources required to eradicate the pest. The program is examining new detection technologies (such as traps and detector dogs), studying how beetle biology and the time elapsed between surveys impact survey effectiveness, and evaluating an extended timeframe for the application of preventive treatments (potentially saving funds by treating less frequently to achieve the same results). In FY 2015, APHIS plans to continue to reduce the damage caused by this devastating pest.

It is also critical to protect U.S. agricultural crops and rangelands against pest and disease damage. The value of rangeland forage across western States is estimated to average \$13 per acre; the comprehensive value of rangeland for use as wildlife habitat, to stabilize soils and filtering water, and for recreation and other uses is two to three times greater than that. Although grasshoppers and Mormon crickets are natural components of rangeland ecosystems, their populations can reach outbreak levels and cause serious damage, especially when accompanied by drought conditions. APHIS' grasshopper and Mormon cricket program monitors and protects 664 million acres of rangeland worth a total of nearly \$8.8 billion. Uncontrolled infestations could cause significant economic losses for U.S. livestock producers by reducing animal food supply in rangeland, therefore forcing producers to buy supplemental feed or sell their livestock at reduced prices. APHIS conducts surveys in western States that provide information to help landowners and managers manage outbreaks. To reduce damage caused by grasshoppers, APHIS applies predictive models that allow early-season treatments using lower levels of insecticides to reduce immature pest populations as an alternative to using more expensive and stronger pesticides required to address mature pests. APHIS will continue conducting surveys and treatments to manage these pests in FY 2015.

Wildlife damage can also pose threats to the U.S. economy and to public health and safety. For example, the damage caused by beavers in the southeastern United States alone is estimated to have exceeded \$3 billion over the last 40 years. To address and prevent costly beaver damage, APHIS removes beaver dams that clog waterways and flood roads and timber resources. In FY 2013, APHIS conducted beaver damage management activities in 39 States, including four State/region-wide programs supported by cooperator-provided funds. Other examples include activities to reduce depredation or nuisance issues caused by migratory birds protected by Federal laws (such as Canada geese); damage to forested areas by overabundant deer in national parks, forests, or suburban communities; and damage to landscapes or infrastructure from roosting birds such as vultures and large flocks of gulls. In FY 2015, APHIS will continue to reduce damage caused by wildlife.

Performance Measure	2010 Actual	2011 Actual	2012 Actual	2013 Actual	2014 Target	2015 Target
Acreage protected by the Tree & Wood Pest Programs (Area outside of quarantine)	N/A	N/A	596 million acres	596 million acres	596 million acres	596 million acres
Value of forest products and ecosystem services protected (based on acreage protected)	N/A	N/A	\$1.19 trillion	\$1.19 trillion	\$1.19 trillion	\$1.19 trillion
Rangeland acreage protected by APHIS' grasshopper program	N/A	N/A	664 million acres	664 million acres	664 million acres	664 million acres
Value of rangeland protected by APHIS' grasshopper program	N/A	N/A	\$8.78 billion	\$8.78 billion	\$8.78 billion	\$8.78 billion

Selected Past Accomplishments Toward Achievement of the Key Outcome:

- Eradicated ALB outbreaks from Chicago, Illinois; Islip, Staten Island and Manhattan in New York; and Jersey City and Union and Middlesex Counties, New Jersey.
- Monitored and protected 664 million acres of rangeland worth a total of nearly \$8.8 billion.
- Protected more than \$12.5 million in natural resources in Tennessee by reducing damage to timber, roads and bridges, crops and pastures, drainage control structures and utilities from beavers.

Selected Accomplishments Expected at the FY 2015 Proposed Resource Level:

- Eradicate ALB from Norfolk and Suffolk Counties, in and around Boston, Massachusetts.
- Continue conducting surveys and treatments to successfully manage grasshoppers and Mormon crickets.
- Collaborate with private industry on research to develop new technologies to reduce damage, such as a contraceptive for managing bird populations.

USDA Strategic Goal: Help America Promote Agricultural Production and Biotechnology Exports as America Works to Increase Food Security.

USDA Strategic Objective: 3.2: Enhance America's ability to develop and trade agricultural products derived from new and emerging technologies.

Agency Strategic Goal	Agency Objectives	Programs that Contribute	Key Outcome
Goal 4. Ensure the safety of genetically engineered organisms and veterinary biologics.	<u>Objective 4.1:</u> Ensure that certain genetically engineered crops that are “regulated articles” as defined in our regulations will not pose plant pest risks when released into the environment. <u>Objective 4.2:</u> Ensure pure, safe, potent and effective veterinary biologics are available for diagnosis, prevention, and treatment of animals.	• Biotechnology Regulatory Services • Veterinary Biologics	APHIS will scientifically demonstrate the safety of biotechnology and veterinary biologic products and facilitate their development to benefit producers and consumers.

Key Outcome: APHIS will scientifically demonstrate the safety of biotechnology and veterinary biologic products and facilitate their development to benefit producers and consumers.

Key Performance Measures and Targets:

The biotechnology industry—valued worldwide at \$246 billion—is constantly developing innovative products of modern biotechnology (including genetically engineered (GE) organisms) that can greatly benefit the public. On the plant health side, GE crops can increase yields or decrease crop losses due to pests and diseases. On the animal health side, veterinary biologics derived from modern technologies help to prevent, diagnose, and treat serious animal diseases. However, before any of these products can be brought to market, it is essential to demonstrate—through rigorous, scientific review—that they do not pose a risk to America’s agricultural and natural resources. APHIS provides the regulatory controls that ensure new GE crops will not pose plant health risks when released into the environment and that veterinary biologics are safe, pure, potent, and effective. In addition to protecting America’s agriculture, these controls instill confidence in the public and in our trading partners that GE products produced in America are of the highest quality.

APHIS regulates the importation, interstate movement, and field release—or “introduction”—of GE organisms that may pose a risk to plant health. As part of its science-based framework, APHIS requires developers to apply for a permit or notification before introducing these organisms into the environment and conducts thorough scientific analyses to evaluate potential plant risks and environmental impacts before authorizing such introductions. Once a developer can demonstrate that a GE crop does not pose a risk to plant health, the developer can petition APHIS to seek deregulation of the crop. In FY 2013, APHIS made a total of 102 determinations of deregulation consisting of 165 plant lines. APHIS expects the number of determinations of non-regulated status to increase from 102 in FY 2013 to 112 in FY 2015.

APHIS ensures regulatory compliance on the part of the biotechnology community through inspections, educational and outreach efforts, and investigations and audits. In FY 2013, APHIS authorized 2,054 new permits and notifications at 10,698 locations in the United States, and issued 735 site inspections (with 98 percent of those inspected found to be in compliance with APHIS’ regulations). APHIS’ goal for FY 2015 is for at least 99 percent of sites inspected to be in compliance.

Through its efforts to ensure the safety and effectiveness of U.S. veterinary biological products, valued at \$1.35 billion, APHIS safeguards the health of millions of livestock and pet animals and protects domestic and worldwide markets for U.S. animals and animal products, worth \$154 billion. APHIS protects animals and animal owners from

contaminated, worthless, or dangerous products. The Agency also facilitates the entry of new, innovative products to the market, expanding options for animal owners to protect the health of their animals. For example, APHIS recently worked with the Department of Homeland Security to license a biotechnology-derived vaccine for foot-and-mouth disease (FMD). Because FMD spreads so quickly and causes enormous losses, most vaccines that use live virus are only produced in countries where FMD is already present. This is the first FMD vaccine that can be safely produced in the United States, and it expands the resources available to respond to this disease in the event that it is accidentally, or intentionally, introduced into the United States.

APHIS continuously evaluates its activities and makes adjustments to improve efficiency and effectiveness. APHIS has conducted business process improvement reviews of both its biotechnology regulatory determination reviews and its veterinary biologics licensing reviews with the goal of streamlining the processes and reducing the time required to allow companies to bring new products to market sooner. In FY 2011 - 2013, APHIS conducted a series of review of its veterinary biologics licensing process to find time savings. The reviews focused on a range of objectives including the electronic workflow of documents and streamlining of submission processing and testing. As a result, APHIS has reduced licensing times by more than 20 percent on average for all biologics. APHIS also initiated a business process improvement effort for its biotechnology reviews in 2012 and has worked since to implement changes to its petition review process, with a goal to reduce the time required for review from an average of 3 years to about 13 to 16 months. The changes included establishing specific timelines for each step, using new management and tracking tools, and getting the public involved earlier to identify risks and controversial issues. By taking these steps, APHIS delivers a more predictable petition process without compromising the quality of the analysis to support our decision making. The first petition to reach a determination of nonregulated status start to finish in the improved process did so 376 days sooner than the average time under the previous process. In FY 2015, APHIS will continue to evaluate the anticipated efficiencies from the process improvement efforts.

Performance Measure	2010 Actual	2011 Actual	2012 Actual	2013 Actual	2014 Target	2015 Target
Cumulative number of actions taken by USDA to deregulate biotechnology products based on the scientific determination that they do not pose a plant pest risk to agriculture	81	87	93	102	107	112
Percent of field release sites in compliance with biotechnology regulations designed to protect agriculture from plant pests	95%	95%	98%	99%	99%	99%
Average number of days to issue a product license for veterinary biologics	541 days	441 days	282 days	263 days	253 days	253 days

Selected Past Accomplishments Toward Achievement of the Key Outcome:

- As of FY 2013, APHIS has made a total of 102 determinations of deregulation consisting of 165 plant lines.
- In FY 2013, APHIS authorized 2,054 new permits and notifications at 10,698 locations in the United States, and issued 735 site inspections (with 98 percent of those inspected found to be in compliance with APHIS' regulations).
- APHIS worked with the Department of Homeland security to license a biotechnology-derived vaccine for FMD, the first FMD vaccine that can be safely produced in the United States.

Selected Accomplishments Expected at the FY 2015 Proposed Resource Level:

- APHIS expects the number of determinations of non-regulated status to increase from 102 in FY 2013 to 112 in FY 2015.
- APHIS will maintain a high percentage rate of compliance with APHIS' regulations for field test sites.
- APHIS will continue to support the development and licensing of veterinary biologic products.

USDA Strategic Goal: Help America Promote Agricultural Production and Biotechnology Exports as America Works to Increase Food Security.

USDA Strategic Objective: 3.2: Enhance America's ability to develop and trade agricultural products derived from new and emerging technologies.

Agency Strategic Goal	Agency Objectives	Programs that Contribute	Key Outcome
<u>Goal 5.</u> Ensure the safe trade of agricultural products, creating export opportunities for U.S. producers.	<u>Objective 5.1:</u> Ensure the resolution of sanitary and phytosanitary issues and trade barriers. <u>Objective 5.2:</u> Eliminate all remaining bovine spongiform encephalopathy (BSE) barriers to export markets through a deliberate process of engagement with trading partners with BSE restrictions. <u>Objective 5.3:</u> Improve the export customer experience.	• Agriculture Import/Export • Overseas Technical & Trade Operations • Physical and Operational Security	Resolve sanitary and phytosanitary (SPS) trade barriers, improve international animal and plant health standards, and collaborate with U.S. and foreign partners to build capacity and prevent agricultural pest and disease threats from reaching the United States.

Key Outcome: Resolve sanitary and phytosanitary (SPS) trade barriers, improve international animal and plant health standards, and collaborate with U.S. and foreign partners to build capacity and prevent agricultural pest and disease threats from reaching the United States.

APHIS uses its technical expertise in animal and plant health to resolve sanitary (animal) and phytosanitary (plant) (SPS) issues that affect export opportunities for U.S. producers, allowing U.S. companies to be competitive in trade. In FY 2013, APHIS retained, expanded, or opened markets worth \$2.9 billion for U.S. agricultural exports. The Agency also plays a central role in resolving technical trade issues to ensure the fast and safe movement of agricultural imports and exports. In FY 2013, our overseas employees secured the release of 279 detained shipments of U.S. agricultural products worth more than \$34.8 million. To support these export opportunities, the Agency negotiates animal and plant health certification requirements; assists U.S. exporters in meeting foreign regulatory requirements, ensuring requirements are proportional to risk without being excessively restrictive; and provides technical information to support the safety of U.S. agricultural products destined for foreign markets. APHIS' employees – including headquarters personnel, field staff, and personnel stationed in 30 countries play a critical role in the success of these efforts.

APHIS also conducts capacity building activities to reduce risks to U.S. agriculture by helping developing countries strengthen their agricultural health infrastructure. Through these efforts, APHIS encourages developing countries to use the same science-based, international standards that the Agency uses to evaluate import requests. Much of this assistance is provided on a reimbursable basis aimed at a targeted and limited number of recipient countries based on the specific collaborators' needs. During FY 2013, APHIS acted upon 122 requests for technical assistance. For example, working with USDA's Foreign Agricultural Service and the United States Agency for International Development, APHIS was able to complete four distance learning training modules for plant health in Pakistan. In collaboration with the U.S. Department of Defense and U.S. Department of State, veterinarians from more than 20 countries were taught courses in veterinary epidemiology of trans-border animal diseases as well as risk-based analysis of the importation of animals and animal products.

One of APHIS' specific objectives to support U.S. exports is to eliminate all remaining trade barriers related to BSE. APHIS has contributed to OIE's goal of ensuring that science-based standards govern international trade in animals and animal products by, among other things, publishing a proposed comprehensive rule on BSE that brings the U.S.

BSE import regulations for bovines and bovine products closer in line with OIE standards. Additionally, Japan agreed in FY 2013 to permit the import of beef from cattle less than 30 months of age. These actions will likely result in hundreds of millions of dollars in exports of U.S. beef to Japan in coming years. APHIS will continue these efforts in FY 2015 and work towards eliminating all remaining BSE barriers to export markets through a deliberate process of engagement with trading partners with BSE restrictions. APHIS will coordinate with USTR, FAS, and USDA's Food Safety and Inspection Service as well as continue to engage these countries through animal health discussions.

APHIS also supports U.S. exporters through inspecting animals and shipments of agricultural products destined for export and certifying that they are free of certain pests or diseases (as required by many trading partners). In FY 2013, APHIS (and its State and county counterparts) issued more than 605,000 phytosanitary certificates and more than 200,000 animal and animal product export certificates. In FY 2014 and 2015, APHIS will work to improve the export customer experience through expanding electronic processing of export documentation and deploying the service center concept for meeting animal and animal product exporter's certification needs. These goals focus on streamlining the processes and paperwork that exporters need to move their products.

Performance Measure	2010 Actual	2011 Actual	2012 Actual	2013 Actual	2014 Target	2015 Target
Value of expanded and retained markets, new market access, and trade facilitated	\$2.4 billion	\$1.68 billion	\$2.56 billion	\$2.9 billion	\$1.9 billion	\$1.9 billion
Number of shipments released (in foreign ports of entry) as a result of APHIS intervention 2/	294	300	324	279	210	210

2/ As APHIS establishes/improves relations with foreign countries, the number of U.S. shipments held is anticipated to decline.

Selected Past Accomplishments Toward Achievement of the Key Outcome:

- Negotiated and resolved 200 SPS trade-related issues involving U.S. agricultural exports, with an estimated market value of \$2.9 billion.
- Secured the release of 279 shipments of U.S. cargo held up at foreign ports-of-entry, which prevented the rejection of shipments worth more than \$34.8 million.
- Published a final rule in November 2013 to bring the U.S. BSE import regulations in line with OIE standards.

Selected Accomplishments Expected at the FY 2015 Proposed Resource Level:

- Continue to resolve SPS trade-related issues involving U.S. agricultural exports to facilitate trade.
- Continue to provide the necessary documentation in support of U.S. cargo held up at foreign ports-of-entry.
- Work with Federal partners to develop strategies to engage trading partners that continue to impose BSE-related restrictions.

USDA Strategic Goals: Ensure That All of America's Children Have Access to Safe, Nutritious, and Balanced Meals. Assist Rural Communities to Create Prosperity So They Are Self-Sustaining, Repopulating, and Economically Thriving.

USDA Strategic Objectives: 4.4: Protect agricultural health by minimizing major diseases and pests to ensure access to safe, plentiful, and nutritious food. 1.1: Enhance rural prosperity, including leveraging capital markets to increase government's investment in rural America.

Agency Strategic Goal	Agency Objectives	Programs that Contribute	Key Outcome
Goal 6. Protect the health of U.S. agricultural resources by implementing surveillance, preparedness and response, and control programs.	<u>Objective 6.1:</u> Monitor the health of U.S. agricultural resources. <u>Objective 6.2:</u> Ensure effective preparedness and response systems. <u>Objective 6.3:</u> Ensure effective control, eradication, management, and enforcement programs. <u>Objective 6.4:</u> Manage conflicts caused by wildlife, detect and control wildlife diseases, and protect threatened and endangered species. <u>Objective 6.5:</u> Provide and coordinate timely diagnostic laboratory support and services.	• Animal Health Technical Services • APHIS Information Technology Infrastructure • Animal and Plant Health Regulatory Enforcement • Aquatic Animal Health • Avian Health • Buildings and Facilities • Cattle Health • Contingency Fund • Cotton Pests • Emergency Preparedness and Response • Equine, Cervids, and Small Ruminant Health • Field Crop and Rangeland Ecosystem Pests • National Veterinary Stockpile • Pest Detection • Specialty Crop Pests • Swine Health • Veterinary Biologics • Veterinary Diagnostics • Wildlife Damage Management • Zoonotic Disease Management	Reduce or mitigate the impact of agricultural pests and diseases as well as wildlife damage by providing tools and services—including diagnostic, detection, control, management, and enforcement methods and programs—to protect and enhance animal and plant health.

Key Outcome: Reduce or mitigate the impact of agricultural pests and diseases as well as wildlife damage by providing tools and services—including diagnostic, detection, control, management, and enforcement methods and programs—to protect and enhance animal and plant health.

APHIS' surveillance, preparedness and response, and control activities are designed to quickly detect and address destructive animal and plant pests and diseases and reduce and prevent billions of dollars in damage (about \$1.26 billion in FY 2013 alone) to agricultural resources each year. They not only ensure children and other consumers in the United States and across the world have access to safe and nutritious food; they also directly support farmers' efforts to export their products. Healthy farms and ranches and the robust agricultural exports help create a sustainable agricultural system and keep rural America thriving. Along with the programs discussed in the Agency's Goal 1, these efforts protect U.S. livestock, poultry, specialty crop, corn, cotton, and wheat industries worth more than \$167 billion.

The first component of APHIS' efforts, early detection, is critical to averting economic and environmental damage. Once a pest or disease becomes established or spreads, mitigation costs can reach millions of dollars and result in substantial costs to producers and consumers, as well as irreversible damage to ecosystems. An article published in the *Journal of Veterinary Diagnostics and Investigations* estimated that a detection of FMD identified on day 7

would have an impact of \$2.3 billion on the economy; if not identified until day 22, it could have an impact of \$69 billion. In monitoring for potentially serious animal diseases, APHIS conducts more than 500,000 diagnostic tests per year on approximately 250,000 animal samples collected. To bolster surveillance efforts, APHIS continues to implement the animal disease traceability program that would allow affected animals to be found quickly in the event of an outbreak. APHIS conducts early detection plant pest and disease surveys—targeting various fruit, vegetable, and honey bee pests—in cooperation with all 50 States, 2 U.S. territories, Tribal and local governments, industry partners, and other stakeholders. In FY 2013, the Agency targeted 95 high-risk pests of national concern for survey in citrus, corn, grape, oak, pine, small grains, soybean, stone fruit, and nursery crop commodities, as well as exotic wood boring bark beetles and cyst nematodes.

Rapid response can make the critical difference in succeeding or failing to contain pest and disease outbreaks. When an animal or plant pest or disease is detected, APHIS works with Federal, State, and local partners to coordinate a rapid response effort. One key component in the Agency’s emergency response strategy is the National Veterinary Stockpile (NVS) program. Through its NVS, the Agency has countermeasures to respond to 4 of the 15 most significant animal diseases of concern within 24 hours of detection. For FY 2015, the NVS plans to hold a full scale exercise in Wisconsin to test their current response plans and a table top exercise validating timely classic swine fever vaccine shipment from the manufacturer to Puerto Rico.

APHIS also works closely with its State counterparts to address ongoing pest and disease issues and has longstanding partnerships with industry groups. By partnering together, APHIS and its State and industry cooperators have successfully eradicated boll weevil from more than 99 percent of U.S. cotton acreage, dramatically reducing growers’ production costs. APHIS’ Cotton Pests program directly protects 6.7 million acres of cotton production worth \$1.7 billion in Texas (where the last remaining boll weevil population is present) and indirectly protects 10.2 million acres worth \$6.8 billion nationwide. In FY 2015, APHIS and its cooperators will continue to address the last known boll weevil infested area. APHIS also directly protects nearly 1.6 million acres of specialty crops and enables more than 21,000 businesses to continue operating while addressing pests of concern using the various tools and methods developed. The types of businesses include farms, shippers, and processors that handle specialty crops regulated by the Agency because of pests or diseases like the European grapevine moth (EGVM). As a result of no new EGVM detections during 2 years of surveillance, APHIS removed four counties from the quarantined area in FY 2013, leaving only Napa County and portions of Solano and Sonoma counties (in proximity to EGVM finds in Napa) under quarantine. APHIS hopes to complete the eradication of EGVM in FY 2015 while continuing to survey to ensure the pest does not reemerge.

Diseases and pests found in wild animals can be transmitted to agricultural animals as well. For instance, feral swine can host more than 30 pathogens and parasites including foreign animal diseases, FMD, and classical swine fever (CSF), while bison can carry brucellosis. Feral swine have quickly established themselves throughout the nation, increasing from 1 million animals in 17 States to about 5 million animals in 38 States in the last 20 years. In 2013, APHIS implemented a pilot program specifically designed to strategically removal feral swine from regions in New Mexico. In only a few months, the Wildlife Damage Management program removed 640 feral swine over an area expanding more than 4.5 million acres, saving New Mexico property owners approximately half a million dollars in annual damages alone. In FY 2014, APHIS is implementing a national, cooperative cost-share program to slow -- and eventually stop -- the leading edges of population spread; eliminate swine populations where possible; and control swine numbers to achieve acceptable levels in other States. The Agency will continue these efforts in FY 2015.

To support these pest and disease detection and management programs, APHIS coordinates diagnostic laboratory support and services. The Agency and its partners in the National Animal Health Laboratory Network (NAHLN), test animals for endemic and suspected foreign animal diseases. The NAHLN is comprised of 60 State and university laboratories located in 40 States, as well as two NVSL facilities and two other Federal health diagnostic laboratories not associated with animal health disease diagnostic work. To increase diagnostic capacity for high-risk plant pathogens, APHIS provides training and accreditation services to support to the National Plant Diagnostic Network (NPDN), working with USDA’s National Institute of Food and Agriculture. APHIS has reviewed quality management standards for and accredited 37 NPDN labs to perform high-risk disease testing.

Performance Measure	2010 Actual	2011 Actual	2012 Actual	2013 Actual	2014 Target	2015 Target
Percent of States and Tribes receiving cooperative agreement funds that have a current strategic plan for animal disease traceability	N/A	N/A	N/A	75%	80%	95%
Percent of high-risk plant pests (as identified on the Priority Pest List) for which early detection surveys were conducted in the United States	89%	86%	79%	86%	88%	90%
Value of livestock and poultry protected by APHIS' animal health programs	N/A	N/A	\$154 billion	\$154 billion	\$154 billion	\$154 billion
Production value of cotton directly protected by APHIS' cotton pest programs	N/A	N/A	\$1.7 billion	\$1.7 billion	\$1.7 billion	\$1.7 billion
Value of wheat and corn directly protected by APHIS' Field Crop Pests program	N/A	N/A	\$23 million	\$23 million	\$23 million	\$23 million

Selected Past Accomplishments Toward Achievement of the Key Outcome:

- Published a final rule implementing the new animal disease traceability framework, which became effective in March 2013.
- In cooperation with State and industry partners, eradicated boll weevil from more than 99 percent of U.S. cotton acreage and pink bollworm from more than 99.9 percent of the acreage, dramatically reducing growers' production costs.
- Conducted a feral swine pilot in New Mexico, removing 640 feral swine from more than 4.8 million acres; this represents an important step in the 5-year goal of eradication of feral swine from New Mexico.

Selected Accomplishments Expected at the FY 2015 Proposed Resource Level:

- Monitor for diseases in wild animals such as pseudorabies, swine brucellosis, CSF, and trichinella.
- Hold a full scale exercise to test National Veterinary Stockpile response plans and a table top exercise validating timely shipment of CSF vaccine.
- Complete the eradication of EGVM in FY 2015 while continuing to survey to ensure the pest does not reemerge.
- Remove approximately 130,000 feral swine through the implementation of a national, cooperative program to slow, then stop the spread of feral swine that damage agriculture, natural resources, and property, and that threaten human health and safety.

ANIMAL AND PLANT HEALTH INSPECTION SERVICE

Strategic Goal Funding Matrix (On basis of appropriation) (Dollars in thousands)

Program / Program Items	2012 Actual	2013 Actual	2014 Estimate	Increase or Decrease	2015 Estimate
Department Strategic Goal 1: Assist rural communities to create prosperity so they are self-sustaining and economically thriving.					
Department Objective 1.1: Enhance rural prosperity, including leveraging capital markets to increase government's investment in rural America.					
Animal Welfare.....	\$27,087	\$25,000	\$28,010	-	\$28,010
Staff Years.....	224	213	218	-	218
Horse Protection.....	696	642	697	-	697
Staff Years.....	5	5	6	-	6
Wildlife Damage Management.....	72,500	67,836	87,428	-	87,428
Staff Years.....	534	526	620	-	620
Wildlife Services Methods Development.....	18,000	17,536	18,856	-	18,856
Staff Years.....	164	163	163	-	163
Total Cost, Strategic Goal.....	118,283	111,014	134,991	-	134,991
Staff Years, Strategic Goal.....	927	907	1,007	-	1,007
Department Strategic Goal 2: Ensure our National forests and private working lands are conserved, restored, and made more resilient to climate change, while enhancing our water resources.					
Department Strategic Objective 2.1: Improve the health of the nation's forests, grasslands, and working lands by managing our natural resources.					
Tree & Wood Pests.....	55,638	52,273	54,000	-8,608	45,392
Staff Years.....	321	319	319	-4	315
Field Crop & Rangeland Ecosystems Pests (Grasshopper).....	4,578	4,225	4,592	-	4,592
Staff Years.....	39	39	39	-	39
Total Cost, Strategic Goal.....	60,216	56,498	58,592	-8,608	49,984
Staff Years, Strategic Goal.....	360	358	358	-4	354
Department Strategic Goal 3: Help America promote agricultural production and biotechnology exports as America works to increase food security.					
Department Strategic Objective 3.2: Enhance America's ability to develop and trade agricultural products derived from new and emerging technologies					
Agriculture Import/Export.....	13,354	12,325	14,099	-	14,099
Staff Years.....	92	92	92	-	92
Biotechnology Regulatory Services.....	18,135	16,738	18,135	-	18,135
Staff Years.....	92	90	92	-	92
Overseas Technical & Trade Operations.....	20,104	18,472	20,114	-	20,114
Staff Years.....	73	73	76	-	76
Total Cost, Strategic Goal.....	51,593	47,534	52,348	-	52,348
Staff Years, Strategic Goal.....	257	255	260	-	260

Program / Program Items	2012 Actual	2013 Actual	2014 Estimate	Increase or Decrease	2015 Estimate
Department Strategic Goal 4: Ensure that all of America's children have access to safe, nutritious, and balanced meals.					
Department Strategic Objective 4.4: Protect agricultural health by minimizing major diseases and pests to ensure access to safe, plentiful, and nutritious food.					
Agricultural Quarantine Inspection (Appropriated).....	27,500	26,304	26,900	-	26,900
Staff Years.....	364	360	360	-	360
Animal and Plant Health Regulatory Enforcement.....	16,275	15,021	16,224	-	16,224
Staff Years.....	142	138	142	-	142
Animal Health Technical Services.....	32,500	34,018	35,339	+2,550	37,889
Staff Years.....	64	64	64	-	64
APHIS Info. Technology Infrastructure.....	4,335	4,001	4,251	-	4,251
Staff Years.....	-	-	-	-	-
Aquatic Animal Health.....	2,261	2,087	2,253	-	2,253
Staff Years.....	22	22	22	-	22
Avian Health.....	52,000	47,993	52,340	-2,117	50,223
Staff Years.....	196	196	196	-2	194
Cattle Health.....	99,000	90,341	92,500	-	92,500
Staff Years.....	570	560	555	-	555
Contingency Fund.....	1,000	1,384	470	-	470
Staff Years.....	15	15	5	-	5
Cotton Pests.....	17,848	14,739	12,720	-3,665	9,055
Staff Years.....	61	61	58	-	58
Decentralized GSA Rental and DHS Security Payments.....	-	-	-	+42,567	42,567
Staff Years.....	-	-	-	-	-
Emergency Preparedness & Response.....	17,000	15,690	16,966	-	16,966
Staff Years.....	91	89	90	-	90
Equine, Cervid, and Small Ruminant Health.....	22,000	17,692	19,500	-	19,500
Staff Years.....	133	129	120	-	120
Field Crop & Rangeland Ecosystems Pests.....	4,490	4,144	4,234	-	4,234
Staff Years.....	21	19	19	-	19
National Veterinary Stockpile.....	2,750	2,538	3,722	-	3,722
Staff Years.....	1	1	1	-	1
Pest Detection.....	27,500	25,381	27,446	-	27,446
Staff Years.....	145	145	145	-	145
Physical/Operational Security.....	5,365	4,952	5,146	-	5,146
Staff Years.....	-	-	-	-	-
Plant Protection Methods Development.....	20,600	19,935	24,549	-4,000	20,549
Staff Years.....	140	139	141	-	141
Specialty Crop Pests.....	153,950	142,087	151,500	-14,107	137,393
Staff Years.....	700	694	688	-7	681
Swine Health.....	23,000	21,228	22,250	-	22,250
Staff Years.....	127	122	120	-	120
Veterinary Biologics.....	16,457	15,189	16,417	-	16,417
Staff Years.....	108	108	109	-	109
Veterinary Diagnostics.....	31,611	29,175	31,540	-	31,540
Staff Years.....	190	190	190	-	190
Zoonotic Disease Management.....	9,000	9,575	9,523	-	9,523
Staff Years.....	45	45	45	-	45
General Provision 748.....	-	-	20,000	-20,000	-
Staff Years.....	-	-	-	-	-
Buildings & Facilities.....	3,200	2,928	3,175	-	3,175
Total Cost, Strategic Goal.....	589,642	546,400	598,965	+1,228	600,193
Staff Years, Strategic Goal.....	3,135	3,097	3,070	-9	3,061
Subtotal, Appropriated Salaries and Expenses	816,534	758,519	841,721	-7,380	834,341
Subtotal, Buildings & Facilities.....	3,200	2,928	3,175	-	3,175
Total Cost, All Strategic Goals	819,734	761,447	844,896	-7,380	837,516
Total Staff Years, All Strategic Goals	4,679	4,617	4,695	-13	4,682

ANIMAL AND PLANT HEALTH INSPECTION SERVICE

Full Cost by Department Strategic Goals

(On basis of appropriated funds)

(dollars in thousands)

Department Strategic Goal: Assist rural communities to create prosperity so they are self-sustaining, repopulating, and economically thriving.

Program/Programs Items - Discretionary		2012	2013	2014	2015
Animal Welfare.....		\$22,211	\$20,500	\$22,968	\$22,968
Horse Protection.....		571	527	572	572
Wildlife Damage Management.....		59,450	55,626	71,691	71,691
Wildlife Services Methods Development.....		14,760	14,379	15,462	15,462
Program Operational Costs.....		11,828	11,101	13,499	13,499
Indirect Costs.....		9,463	8,881	10,799	10,799
Total Discretionary Costs for Strategic Goal 1.....		118,283	111,014	134,991	134,991
FTEs.....		927	907	1,007	1,007
Performance Measure:	Animal Welfare: Percent of licensees inspected and registrants in substantial compliance of the Animal Welfare Act	95%	96%	97%	97%
Performance Measure:	Animal Welfare: Percent of facilities determined to be in substantial compliance at the first unannounced inspection after receiving a license (conducted 6-9 months later)	N/A	N/A	Baseline	TBD
Performance Measure:	Horse Protection: Percent reduction in detections of soring in horses protected by the Horse Protection Act	26%	30%	40%	50%

Department Strategic Goal: Ensure our National forests and private working lands are conserved, restored, and made more resilient to climate change, while enhancing our water resources.

Tree & Wood Pests.....		45,623	42,864	44,280	37,221
Field Crop & Rangeland Ecosystems Pests (Grasshopper).....		3,754	3,465	3,765	3,765
Program Operational Costs.....		6,022	5,650	5,859	4,998
Indirect Costs.....		4,817	4,520	4,687	3,999
Total Discretionary Costs for Strategic Goal 2.....		60,216	56,498	58,592	49,984
FTEs.....		360	358	358	354
Performance Measure:	Acreage protected by the Tree & Wood Pest Programs (Area outside of quarantine)	596 million acres	596 million acres	596 million acres	596 million acres
Performance Measure:	Value of forest products and ecosystem services protected (based on acreage protected)	\$1.19 trillion	\$1.19 trillion	\$1.19 trillion	\$1.19 trillion
Performance Measure:	Rangeland acreage protected by APHIS' grasshopper program	664 million acres	664 million acres	664 million acres	664 million acres
Performance Measure:	Value of rangeland protected by APHIS' grasshopper program	\$8.78 billion	\$8.78 billion	\$8.78 billion	\$8.78 billion

Program/Programs Items - Discretionary	2012	2013	2014	2015

Department Strategic Goal: Help America promote agricultural production and biotechnology exports as America works to increase food security.

Agriculture Import/Export.....	10,950	10,106	11,561	11,561
Biotechnology Regulatory Services.....	14,871	13,725	14,871	14,871
Overseas Technical & Trade Operations.....	16,485	15,147	16,493	16,493
Program Operational Costs.....	5,159	4,753	5,235	5,235
Indirect Costs.....	4,127	3,803	4,188	4,188
Total Discretionary Costs for Strategic Goal 3.....	51,593	47,534	52,348	52,348
FTEs.....	257	255	260	260

Performance Measure:	Cumulative number of actions taken by USDA to deregulate biotechnology products based on the scientific determination that they do not pose a plant pest risk to agriculture	93	102	107	112

Performance Measure:	Percent of field release sites in compliance with biotechnology regulations designed to protect agriculture from plant pests	98%	99%	99%	99%

Performance Measure:	Average number of days to issue a product license for veterinary biologics	282 days	263 days	253 days	253 days

**Department Strategic Goal :
Ensure that all of America's children have access to safe, nutritious, and balanced meals.**

Agricultural Quarantine Inspection (Appropriated).....	\$22,550	\$21,569	\$22,058	\$22,058
Animal and Plant Health Regulatory Enforcement.....	13,346	12,317	13,304	13,304
Animal Health Technical Services.....	26,650	27,895	28,978	31,069
APHIS Info. Technology Infrastructure.....	3,555	3,281	3,486	3,486
Aquatic Animal Health.....	1,854	1,711	1,847	1,847
Avian Health.....	42,640	39,354	42,919	41,183
Cattle Health.....	81,180	74,080	75,850	75,850
Contingency Fund.....	820	1,135	385	385
Cotton Pests.....	14,635	12,086	10,430	7,425
Emergency Preparedness & Response.....	13,940	12,866	13,912	13,912
Equine and Cervid Health.....	18,040	14,507	15,990	15,990
Field Crop & Rangeland Ecosystems Pests.....	3,682	3,398	3,472	3,472
National Veterinary Stockpile.....	2,255	2,081	3,052	3,052
Pest Detection.....	22,550	20,812	22,506	22,506
Physical/Operational Security.....	4,399	4,060	4,220	4,220
Plant Protection Methods Development.....	16,892	16,347	20,130	16,850
Specialty Crop Pests.....	126,239	116,511	124,230	112,662
Swine Health.....	18,860	17,407	18,245	18,245
Veterinary Biologics.....	13,495	12,455	13,462	13,462
Veterinary Diagnostics.....	25,921	23,924	25,863	25,863
Zoonotic Disease Management.....	7,380	7,851	7,809	7,809

Program/Programs Items - Discretionary		2012	2013	2014	2015
Buildings & Facilities.....		3,200	2,928	3,175	3,175
General Provision 748 Citrus Greening.....		-	-	20,000	-
Decentralized GSA Rental and DHS Security Payment.....		-	-	-	42,567
Program Operational Costs.....		58,644	54,347	57,579	55,445
Indirect Costs.....		46,915	43,478	46,063	44,356
Total Discretionary Costs for Strategic Goal 4.....		589,642	546,400	598,965	600,193
FTEs.....		3,135	3,097	3,070	3,061
Program/Programs Items - Mandatory		2012	2013	2014	2015
Farm Bill: 10202 - National Clean Plant Network.....		5,000	-	-	-
Farm Bill: 10201 - Plant Pest & Disease Mgt. & Disaster Prevention.....		50,000	47,450	-	-
Farm Bill: 10007 - Consolidated Plant Pest & Disease Mgt. & Disaster Prevention Programs		-	-	58,360	62,500
Trust Funds.....		10,186	13,071	9,000	9,000
Program Operational Costs.....		-	-	-	-
Indirect Costs.....		-	-	-	-
Total Mandatory Costs for Strategic Goal 4.....		65,186	60,521	67,360	71,500
FTEs.....		165	65	65	65
Performance Measure:	Value of expanded and retained markets, new market access, and trade facilitated	\$2.56 billion	\$2.9 billion	\$1.9 billion	\$1.9 billion
Subtotal, Salaries & Expenses Discretionary.....		816,534	758,519	841,721	834,341
Subtotal, Buildings & Facilities.....		3,200	2,928	3,175	3,175
Total Discretionary Request.....		819,734	761,447	844,896	837,516
FTEs.....		4,679	4,617	4,695	4,682



Inspection Report

Summer Wind Farm Sanctuary
6490 Mowerson Rd
Brown City, MI 48416

Customer ID: 6902

Certificate: 34-C-0227

Site: 001

SUMMER WIND FARMS

Type: ROUTINE INSPECTION

Date: Aug-13-2014

2.40 (b) (2) REPEAT

ATTENDING VETERINARIAN AND ADEQUATE VETERINARY CARE (DEALERS AND EXHIBITORS).

A brown goat had a long toe on the outside of its right rear foot. This hoof is in need of trimming. Long overgrown hoofs can cause conformation issues and joint problems. Trim this goat's hoof.

2.131 (c) (1) DIRECT NCI

HANDLING OF ANIMALS.

The barrier door to the enclosure housing the tigers Lenny and Squiggy on the right and Pandora on the left would not latch. (This was fixed at the time of inspection.) The barrier fence gates for the alleyways behind the lion enclosure and the tiger Pandora's enclosure were not secure. The lock to the barrier door for the enclosures housing the lion and the tiger JJ was broken. A barrier gate was not present for the alleyway to the American black bear enclosure. The barrier gate restricting entrance between the Asian black bear enclosure and the white tiger enclosure was not secure. The barrier gate to the enclosure housing the crab eating macaque was not locked. Volunteer workers are considered to be members of the public. Barriers must be in place and locked when volunteers are working in this area unless the facility president is in direct supervision of the volunteers. Volunteers cannot have access to these dangerous animals when the president is not present. Contact with these dangerous animals could be potentially fatal to a volunteer worker. It could lead to lethal consequences for the animals as well, if local health officials would require rabies testing. This test requires removal of the brain. Secure and lock all barrier gates and doors.

Correct by: 8-16-14

3.10 REPEAT

WATERING.

The enclosure housing two domestic cats had a water receptacle with a layer of green algae scum on its interior surfaces. This scum came off on the finger of the inspector when he rubbed the bowl on its interior surface. This water bowl needs to be cleaned and sanitized at least every two week or more often if needed. Dirty water receptacles can affect water palatability. Palatability issues can lead to decreased water consumption. It is vital that all animals have access to clean water in order to promote health and comfort. Cats are particular sensitive to kidney damage from lack of water. Clean this water receptacle.

Prepared By:

KURT HAMMEL, D V M

KURT HAMMEL, D V M

USDA, APHIS, Animal Care

Date:

Title:

VETERINARY MEDICAL OFFICER Inspector 1023

Aug-13-2014

Received By:

(b)(6), (b)(7)(c)

Date:

Title:

Aug-14-2014



Inspection Report

3.11 (a) REPEAT

CLEANING, SANITIZATION, HOUSEKEEPING, AND PEST CONTROL.

The two domestic cats are housed in an enclosure that contains one litter box. This litter box had excessive feces in it. Numerous flies were noted in and around this enclosure. An enclosure housing three cats in the warm room contained no litter box. Excess feces were also present in this enclosure. Primary enclosures are to be cleaned of fecal material daily. Excessive feces in the litter box can lead to odor problems. It can also be a potential source of disease and pest control issues. Excessively dirty litter boxes can also be a source of discomfort to the cats as they will hesitate to use the boxes when they are overly soiled. The cats in these enclosures were defecating outside the box which could result in soiling of the cats and ingestion of feces as they groom themselves. This can lead to parasite and other potential infections. Clean litter boxes daily.

3.125 (a) REPEAT DIRECT NCI

FACILITIES, GENERAL.

The two strands of hot wire at the top of the enclosure housing the American black bears have been off for three days according to the facility president. These bears can climb. It would be possible for these bears to escape this enclosure with the hot wire out. These are dangerous animals that could cause significant injury to people within the perimeter fence or other animals located inside the perimeter fence. Repair this wire immediately.

3.127 (c) REPEAT

FACILITIES, OUTDOOR.

The enclosure containing the grizzly bear contained excessive water. The bear had to wade through this water to gain access to its shelter and feeding areas. A method must be employed to rapidly eliminate excess water. It is not comfortable for this animal to have to wade through muddy water to access these areas. The excess muddy water in this enclosure would rapidly contaminate any food fed to this bear. This could lead to parasite or other infections of the bear. Provide this animal with a dry enclosure or develop a method to dry this enclosure rapidly after rainfall.

3.130 REPEAT

WATERING.

The water receptacle for the enclosure containing the lion had a layer of green algae scum lining its interior surface. The water receptacle for the tiger known as JJ had a layer of green algae scum on its interior surface. The water receptacle for the white tiger contained green water. The water receptacle in the enclosure containing two bobcats had a layer of green algae on its interior surface. These receptacles are not being kept clean and sanitary. Dirty water receptacles can affect water palatability. It can also lead to contamination of the water by pathogenic organisms. Water palatability is very important with large cats as poor water palatability can lead to decreased consumption. Decreased water consumption can lead to renal function problems. The majority of the large cats at this facility are advanced in age, making them especially susceptible to kidney problems. Clean these water receptacles. Clean them as often as need to keep the water clean.

Prepared By:

KURT HAMMEL, D V M

KURT HAMMEL, D V M

USDA, APHIS, Animal Care

Date:

Title:

VETERINARY MEDICAL OFFICER Inspector 1023

Aug-13-2014

Received By:

(b)(6), (b)(7)(C)

Date:

Title:

Aug-14-2014



Inspection Report

3.131 (a) REPEAT

SANITATION.

The shelter box for the lion enclosure contained excessive bones and food waste. The shelter box for the tiger known as JJ contained excessive bones and rotting food waste. The enclosure for the tiger known as JJ contained excessive fecal material. The American black bear den box contained excessive food waste and feces. The grizzly bear enclosure contained excessive bones. The Asian black bear den box contained excessive food waste. The enclosure housing the white tiger contained excessive bones and fecal material. The shelter in the enclosure housing one goat contained a large amount of fecal material. The shelter box for the cougar enclosure contained a rotting piece of food waste. Black decaying material and maggots were noted on this food waste. The shelter box had a rancid decaying smell to it. These enclosures need to be cleaned on a more frequent basis. The rotting material present in these animals' enclosures and shelter boxes can contaminate these animals as they lay in their enclosures. The animals can ingest this material when they groom themselves. Not removing old food waste promptly can lead to contamination of new food. Ingesting this rotten material can lead to potential health problems. The weather is now warm and the odor and maggot infestation in the cougar shelter box was profound. The inspectors were able to enter the cougar enclosure to examine under the bedding material as it is easy to look out the cougar. It is highly likely that the warm weather will have led to similar maggot infestations in the other large cat enclosures. Clean these enclosures more frequently to prevent a buildup of food waste to minimize odors and prevent infestation with maggots.

3.131 (c) REPEAT

SANITATION.

The alleyway leading to the butcher area as well as the area directly outside the building housing the butcher area and the alleyway and building next to the butcher area are filled with various debris, old equipment, boards, trash, buckets, fencing and cardboard. These areas provide ample hiding areas for rodents and other pests and numerous rodent holes were located throughout the facility. All this material must be removed to help control pests.

3.131 (d) REPEAT

SANITATION.

There were rodent holes located inside the shelter box for the cougar enclosure. A rodent hole was noted in the tiger Xena's enclosure and in the tiger known as Sher Kahn's enclosure. A rodent hole was in the tiger JJ's enclosure. A rodent hole was noted going under the shelter box of the Asian black bear enclosure. There was mouse feces on top of the refrigerator in the warm room. Rodents can be carriers of disease which may be harmful to the animals housed in these areas. A more effective means of pest control must be established for the facility.

Prepared By:

KURT HAMMEL, D V M

KURT HAMMEL, D V M

USDA, APHIS, Animal Care

Date:

Title:

VETERINARY MEDICAL OFFICER/Inspector 1023

Aug-13-2014

Received By:

(b)(6), (b)(7)(c)

Date:

Title:

Aug-14-2014



Inspection Report

3.132

REPEAT

EMPLOYEES.

It is evident that due to the nature and severity of the animal husbandry issues at the facility that there is a lack of adequately trained employees. The facility relies on volunteer workers. The president of the facility stated to APHIS inspectors that there was no formalized scheduling of workers at the facility. A lack of properly trained employees can result in facility and animal conditions that result in unnecessary animal suffering. Animal numbers must be reduced or more properly trained workers need to be added. Workers need to be trained in the basic needs of the animals at the facility. Topics should include at a minimum: the importance of adequate water, the need for adequate bedding during times of extreme weather, the importance of cleaning and good housekeeping procedures, proper diet for different species of animals and observation of animals for abnormal conditions and behaviors. This training should be done in conjunction with the attending veterinarian or his designee. A list of topics covered and attendees must be documented for review by APHIS. A facility schedule needs to be developed that allows for adequate employee coverage in order to address all animal husbandry needs. Also the facility president is the only one authorized to work with the dangerous animals at the facility. All animal work must be done with the dangerous animals under his direct supervision. This limits the amount of time that is available to service the dangerous animal enclosures as the facility president is often offsite. This leads to poor sanitation in the dangerous animal enclosures. The facility president needs to find a way to be onsite more or hire trained staff to help run the facility.

The inspection was conducted with the facility president on 8-13-14. An exit interview was conducted at that time and all non-compliant items were explained to the facility president. A formal exit interview was conducted with the facility president on 8-14-14.

Prepared By:

KURT HAMMEL, D V M

KURT HAMMEL, D V M

USDA, APHIS, Animal Care

Date:

Title:

VETERINARY MEDICAL OFFICER Inspector 1023

Aug-13-2014

Received By:

(b)(6), (b)(7)(C)

Date:

Title:

Aug-14-2014



Inspection Report

Summer Wind Farm Sanctuary
6490 Mowerson Rd
Brown City, MI 48416

Customer ID: 6902
Certificate: 34-C-0227
Site: 001
SUMMER WIND FARMS

Type: ROUTINE INSPECTION
Date: Sep-09-2014

2.40 (a) (1)

ATTENDING VETERINARIAN AND ADEQUATE VETERINARY CARE (DEALERS AND EXHIBITORS).

The written program of veterinary care does not include bobcats. Bobcats are now present at the facility. It is essential that these animals be included in the program of veterinary care. Veterinary recommendations for care of these animals should be included in the program. APHIS inspectors then use this information while inspecting the animals in order to determine if veterinary recommendations are being followed by the facility. This program is a valuable tool in order to ensure the continuing health and comfort of these animals. Bobcats need to be included on the program of veterinary care.

Correct by: 9-21-14

2.40 (b) (2) REPEAT

ATTENDING VETERINARIAN AND ADEQUATE VETERINARY CARE (DEALERS AND EXHIBITORS).

The brown goat noted on the inspection of 8-13-14 still has a long toe on the outside of its right rear foot. A white goat was also observed with long toes on both of its rear feet. These goats need to have these toes trimmed. Long overgrown hoofs can cause conformation issues and joint problems. Trim these goats' hoofs.

2.75 (b) (1)

RECORDS: DEALERS AND EXHIBITORS.

Two foxes were acquired since the time of the last inspection with no acquisition information recorded for them. Information must be recorded for all animal acquisition and dispositions by the facility. This information is essential in order for APHIS inspectors to monitor animal death losses by the facility and also determine that all animals are obtained from legitimate sources. Record all animal acquisitions and dispositions.

Correct by: Correct from this time forward.

Prepared By:

KURT HAMMEL, D V M

KURT HAMMEL, D V M USDA, APHIS, Animal Care

Title: VETERINARY MEDICAL OFFICER/Inspector 1023

Date:
Sep-11-2014

Received By:

(b)(6), (b)(7)(c)

Date:
Sep-11-2014

Title:



Inspection Report

2.131 (c) (1) REPEAT DIRECT NCI

HANDLING OF ANIMALS.

The barrier door to the service area for the enclosures housing the tigers Xena, Sher Kahn, Kahn and Sundar was not locked. The president of the facility was offsite when the inspectors first arrived at the facility. Volunteer employees had access to the large cat area. The barrier gate to the enclosure housing the crab eating macaque was not locked. Volunteer workers are considered to be members of the public. Barriers must be in place and locked when volunteers are working in this area unless the facility president is in direct supervision of the volunteers. Volunteers cannot have access to these dangerous animals when the president is not present. Contact with these dangerous animals could be potentially fatal to a volunteer worker. It could lead to lethal consequences for the animals as well, if local health officials would require rabies testing. This test requires removal of the brain. Secure and lock all barrier gates and doors.

3.11 (a) REPEAT

CLEANING, SANITIZATION, HOUSEKEEPING, AND PEST CONTROL.

The two domestic cats are housed in an enclosure that contains one litter box. This litter box had excessive feces in it. Numerous flies were noted in and around this enclosure. Primary enclosures are to be cleaned of fecal material daily. Excessive feces in the litter box can lead to odor problems. It can also be a potential source of disease and pest control issues. Excessively dirty litter boxes can also be a source of discomfort to the cats as they will hesitate to use the boxes when they are overly soiled. The cats in this enclosure were defecating outside the box which could result in soiling of the cats and ingestion of feces as they groom themselves. This can lead to parasite and other potential infections. Clean litter boxes daily.

3.83 REPEAT

WATERING.

The water receptacle in the Japanese macaque enclosure has a layer of algae slime lining its interior. Water receptacles must be cleaned and sanitized as often as necessary to keep them free from contamination. Unclean water receptacles can affect water palatability and lead to decreased water consumption. This can have an adverse effect on the health of the animal in this enclosure. Contaminated water can also lead to other potential health issues for this macaque such as bacterial or parasitic infection. Clean this water receptacle as often as needed to keep the water in the receptacle clean and sanitary.

3.84 (a) REPEAT

CLEANING, SANITIZATION, HOUSEKEEPING, AND PEST CONTROL.

The enclosure housing two lemurs contained an excessive amount of fecal material. Excessive fecal material can lead to disease, pest and odor control issues. The lemurs can become contaminated by lying in the fecal material and subsequently ingesting it while grooming. This could lead to potential bacterial or parasitic infections for these animals. Clean this enclosure on a more frequent basis. This enclosure needs to be cleaned.

Prepared By:

KURT HAMMEL, D V M

KURT HAMMEL, D V M

USDA, APHIS, Animal Care

Date:

Title:

VETERINARY MEDICAL OFFICER Inspector 1023

Sep-11-2014

Received By:

(b)(6), (b)(7)(c)

Date:

Title:

Sep-11-2014



Inspection Report

3.125 (c) REPEAT

FACILITIES, GENERAL.

The produce cooler contains spoiled tomatoes that were becoming soft. Molding cucumbers, green beans and broccoli were in the produce cooler. Black rotting lettuce and deteriorating apples were in the produce cooler. The refrigerator in the warm room contained deteriorating apples, lettuce, cauliflower and green peppers. Spoiled produce must be removed promptly to prevent contamination of food intended to be fed to the animals. Sort and remove spoiled produce promptly. This cooler and the refrigerator need to be cleaned and have spoiled and deteriorating items removed in order to prevent contamination of food items that will be fed to the animals.

The meat cooler had a dead raccoon stored in it. The cooler had a horrible ammonia like odor mixed with the odor of rotten and decaying meat. This odor makes it very hard to determine if the meat items stored in this cooler are fit for animal consumption. Clean the cooler, identify the source of the odor and eliminate it. Do not store items not intended to be animal feed in the meat cooler.

3.129 (b) REPEAT

FEEDING.

The food receptacle boxes for the enclosure housing two American black bears and the enclosure housing two Asian black bears contained a large amount of rotting food debris. Any food fed in this box is going to be contaminated by the rotting material present in the box. These feeders need to be cleaned and made sanitary to ensure that the food fed to the bears is wholesome and free from bacterial or pest infestation which could result in health issues for the bears.

3.130 REPEAT DIRECT NCI

WATERING.

The water receptacle for the enclosure containing the tigers known as Lenny and Squiggy was empty at 12:15 PM. At the direction of the inspectors these tigers were offered water. When water was introduced to the receptacle, both tigers immediately approached and began drinking. One tiger drank continuously for about 40 seconds and the other tiger drank continuously for about 60 seconds. This is too long for these tigers to drink. They are not being offered water frequently enough. Lack of water consumption can lead to serious renal problems for these tigers. The water receptacle for the grizzly bear contained about one inch of slimy algae filled water. The water receptacle for the white tiger contained green water. The water receptacle in the enclosure containing one coyote contained green water. The water receptacle for the enclosure housing three foxes had a layer of dirt in it. These receptacles are not being kept clean and sanitary. Dirty water receptacles can affect water palatability. It can also lead to contamination of the water by pathogenic organisms. Water palatability is very important as poor water palatability can lead to decreased consumption. Decreased water consumption can lead to renal function problems. The majority of the large cats at this facility are advanced in age, making them especially susceptible to kidney problems. Clean these water receptacles. Clean them as often as need to keep the water clean.

Prepared By:

KURT HAMMEL, D V M

KURT HAMMEL, D V M

USDA, APHIS, Animal Care

Date:

Title:

VETERINARY MEDICAL OFFICER Inspector 1023

Sep-11-2014

Received By:

(b)(6), (b)(7)(C)

Date:

Title:

Sep-11-2014



Inspection Report

3.131 (a) REPEAT

SANITATION.

The shelter boxes for the tigers known as Lenny and Squiggy and the tiger Pandora contained excessive bones and rotting food waste. The enclosure for the tiger known as JJ contained excessive fecal material. The American black bear den box contained rotting food waste. The Asian black bear den box contained excessive food waste. The enclosure housing the white tiger contained excessive bones and fecal material. The shelter in the enclosure housing one goat contained a large amount of fecal material. These enclosures need to be cleaned on a more frequent basis. The rotting material present in these animals' enclosures and shelter boxes can contaminate these animals as they lay in their enclosures. The animals can ingest this material when they groom themselves. Not removing old food waste promptly can lead to contamination of new food. Ingesting this rotten material can lead to potential health problems. Clean these enclosures more frequently to prevent a buildup of food and fecal waste to minimize odors and prevent potential health problems.

3.131 (c) REPEAT

SANITATION.

The alleyway leading to the butcher area as well as the area directly outside the building housing the butcher area and the alleyway and building next to the butcher area are filled with various debris, old equipment, boards, trash, buckets, tires and fencing. These areas provide ample hiding areas for rodents and other pests and numerous rodent holes were located throughout the facility. All this material must be removed to help control pests.

3.131 (d) REPEAT

SANITATION.

There were rodent holes located inside the shelter box for the cougar enclosure. Rodent holes were located going under the shelter box for the cougar enclosure. Multiple rodent holes were noted in the service alleyway for the tiger enclosures located on leopard row as well as in the tiger enclosures. Rodent feces was also noted in this alleyway. A rodent hole was noted going under the den area for the tiger JJ's enclosure. Rodent holes were noted in the service area for the tigers JJ and Pandora. A rodent hole was noted going under the shelter box of the Asian black bear enclosure. There was rodent feces on the door to the Asian black bear shelter. Rodents can be carriers of disease which may be harmful to the animals housed in these areas. A more effective means of pest control must be established for the facility.

3.132 REPEAT

EMPLOYEES.

It is evident that due to the nature and severity of the animal husbandry issues at the facility that there is a lack of adequately trained employees. The facility relies on volunteer workers. The president of the facility stated to APHIS inspectors that there was no formalized scheduling of workers at the facility. A lack of properly trained employees can result in facility and animal conditions that result in unnecessary animal suffering. Animal numbers must be reduced or more properly trained workers need to be added.

Prepared By:

KURT HAMMEL, D V M

KURT HAMMEL, D V M

USDA, APHIS, Animal Care

Date:

Title:

VETERINARY MEDICAL OFFICER Inspector 1023

Sep-11-2014

Received By:

(b)(6), (b)(7)(C)

Date:

Title:

Sep-11-2014



Inspection Report

Workers need to be trained in the basic needs of the animals at the facility. Topics should include at a minimum: the importance of adequate water, the need for adequate bedding during times of extreme weather, the importance of cleaning and good housekeeping procedures, proper diet for different species of animals and observation of animals for abnormal conditions and behaviors. This training should be done in conjunction with the attending veterinarian or his designee. A list of topics covered and attendees must be documented for review by APHIS. A facility schedule needs to be developed that allows for adequate employee coverage in order to address all animal husbandry needs. Also the facility president is the only one authorized to work with the dangerous animals at the facility. All animal work must be done with the dangerous animals under his direct supervision. This limits the amount of time that is available to service the dangerous animal enclosures as the facility president is often offsite. This leads to poor sanitation in the dangerous animal enclosures. The facility president needs to find a way to be onsite more or hire trained staff to help run the facility.

The inspection was conducted with the facility president on 9-9-14. An exit interview was conducted at that time and all non-compliant items were explained to the facility president. A formal exit interview was conducted with the facility president on 9-11-14.

Prepared By:

KURT HAMMEL, D V M

KURT HAMMEL, D V M

USDA, APHIS, Animal Care

Date:

Title:

VETERINARY MEDICAL OFFICER Inspector 1023

Sep-11-2014

Received By:

(b)(6), (b)(7)(c)

Date:

Title:

Sep-11-2014



Inspection Report

Summer Wind Farm Sanctuary
6490 Mowerson Rd
Brown City, MI 48416

Customer ID: **6902**

Certificate: **34-C-0227**

Site: 001

SUMMER WIND FARMS

Type: ROUTINE INSPECTION

Date: Oct-02-2014

2.40 (a) (1) REPEAT

ATTENDING VETERINARIAN AND ADEQUATE VETERINARY CARE (DEALERS AND EXHIBITORS).

The written program of veterinary care still does not include bobcats. Bobcats are now present at the facility. It is essential that these animals be included in the program of veterinary care. Veterinary recommendations for care of these animals should be included in the program. APHIS inspectors then use this information while inspecting the animals in order to determine if veterinary recommendations are being followed by the facility. This program is a valuable tool in order to ensure the continuing health and comfort of these animals. Bobcats need to be included on the program of veterinary care.

2.40 (b) (2) REPEAT DIRECT NCI

ATTENDING VETERINARIAN AND ADEQUATE VETERINARY CARE (DEALERS AND EXHIBITORS).

The brown goat noted on the inspection of 8-13-14 still has a long toe on the outside of its right rear foot. The white goat noted on the inspection of 9-9-14 still had long toes on both of its rear feet. These goats need to have these toes trimmed. Long overgrown hoofs can cause conformation issues and joint problems. Trim these goats' hoofs.

A small white fox was noted by the inspectors to have a red tinged drainage from its right ear. This drainage covered the ear pinnae and extended onto the shoulder of the fox. Ear infections can be quite painful and this fox needs to receive veterinary treatment. This fox needs to be treated by the attending veterinarian by close of business on 10-3-14. Veterinary instructions for care need to be written and available for APHIS inspector review.

2.40 (b) (3) REPEAT DIRECT NCI

ATTENDING VETERINARIAN AND ADEQUATE VETERINARY CARE (DEALERS AND EXHIBITORS).

A small white fox was noted by the inspectors to have a red tinged drainage from its right ear. This drainage covered the ear pinnae and extended onto the shoulder of the fox. Ear infections can be quite painful and this fox needs to receive veterinary treatment. No one at the facility had noticed the condition of this foxes' ear. Failure to observe health issues and promptly report them to the attending veterinarian will lead to unnecessary suffering and even possible animal death. The fox is suffering due to his current condition. Thorough daily observations of all animals should be made. Animals with known problems should receive extra scrutiny. Report all health issues promptly to the veterinarian.

Prepared By:

KURT HAMMEL, D V M

KURT HAMMEL, D V M

USDA, APHIS, Animal Care

Date:

Title:

VETERINARY MEDICAL OFFICER Inspector 1023

Oct-03-2014

Received By:

(b)(6), (b)(7)(c)

Date:

Title:

Oct-06-2014



Inspection Report

3.11 (a) REPEAT

CLEANING, SANITIZATION, HOUSEKEEPING, AND PEST CONTROL.

Two domestic cats are housed in an enclosure that contains one litter box. Three domestic cats are housed in an enclosure also with one litter box. These litter boxes had excessive feces in them. Primary enclosures are to be cleaned of fecal material daily. Excessive feces in litter boxes can lead to odor problems. It can also be a potential source of disease and pest control issues. Excessively dirty litter boxes can be a source of discomfort to the cats as they will hesitate to use the boxes when they are overly soiled. The cats in the enclosure housing three cats were defecating in the bedding contained in their shelter. This could result in soiling of the cats and ingestion of feces as they groom themselves. This can lead to parasite and other potential infections. Clean litter boxes daily.

3.84 (a) REPEAT

CLEANING, SANITIZATION, HOUSEKEEPING, AND PEST CONTROL.

The enclosure housing two lemurs contained an excessive amount of fecal material. The baboon enclosure housing the larger baboon contained excessive feces next to the water receptacle. Excessive fecal material can lead to disease, pest and odor control issues. The lemurs can become contaminated by lying in the fecal material and subsequently ingesting it while grooming. The baboon's water could easily become contaminated with fecal material. This could lead to potential bacterial or parasitic infections for these animals. Clean these enclosures on a more frequent basis. These enclosures need to be cleaned.

3.125 (a) REPEAT

FACILITIES, GENERAL.

The primary enclosure housing three foxes has multiple areas of the wire lining the enclosure exposed by the digging of the foxes. Some of this wire has broken and is an injury as well as an escape hazard. A section of exposed wire along the front of the enclosure has a gap that could allow a fox to escape. It is possible that a fox could escape or become trapped or injured by the broken wire while attempting to escape. This enclosure needs immediate repair to contain and protect the foxes housed in it.

3.125 (c) REPEAT

FACILITIES, GENERAL.

The produce cooler contains spoiled produce. Deteriorating apples, peaches oranges and nectarines were discolored and soft. Black rotting lettuce was also in the produce cooler. The refrigerator in the warm room contained rotting apples, spoiled tomatoes, cauliflower and green peppers. Liquid drained from the package of green peppers when they were moved for closer inspection. A soft cantaloupe was also in the cooler. Spoiled produce must be removed promptly to prevent contamination of food intended to be fed to the animals. Sort and remove spoiled produce promptly. This cooler and the refrigerator need to be cleaned and have spoiled and deteriorating items removed in order to prevent contamination of food items that will be fed to the animals.

The meat cooler had a horrible ammonia like odor mixed with the odor of rotten and decaying meat. This odor makes it very hard to determine if the meat items stored in this cooler are fit for animal consumption. Clean the cooler, identify the source of the odor and eliminate it.

Prepared By:

KURT HAMMEL, D V M

KURT HAMMEL, D V M

USDA, APHIS, Animal Care

Date:

Title:

VETERINARY MEDICAL OFFICER Inspector 1023

Oct-03-2014

Received By:

(b)(6), (b)(7)(c)

Date:

Title:

Oct-06-2014



Inspection Report

3.129 (b) REPEAT FEEDING.

The food receptacle boxes for the enclosure housing two American black bears and the enclosure housing two Asian black bears contained a large amount of rotting food debris. The grizzly bear feed area contained unidentifiable rotting food debris. Any food fed in these areas is going to be contaminated by the rotting material present. These feeders need to be cleaned and made sanitary to ensure that the food fed to the bears is wholesome and free from bacterial or pest infestation which could result in health issues for the bears.

3.130 REPEAT WATERING.

The water receptacle for the enclosure containing the tigers known as Lenny and Squiggy had a large amount of green algae floating in it. This receptacle is not being kept clean and sanitary. Dirty water receptacles can affect water palatability. It can also lead to contamination of the water by pathogenic organisms. Water palatability is very important as poor water palatability can lead to decreased consumption. Decreased water consumption can lead to renal function problems. The majority of the large cats at this facility are advanced in age, making them especially susceptible to kidney problems. Clean this water receptacle. Clean all water receptacles as often as need to keep the water clean.

3.131 (a) REPEAT SANITATION.

There was excessive feces in the enclosures housing the tigers, Xena, Sher Kahn and Kahn. The shelter boxes for the tigers known as Lenny and Squiggy and the tiger Pandora contained excessive bones and rotting food waste. The enclosure for the tiger known as JJ contained excessive fecal material. JJ's shelter box contained excessive bones and rotting food waste. The American black bear den box contained rotting food waste. The Asian black bear den box contained excessive food waste. The Asian black bear enclosure contained excessive fecal material. The enclosure housing the white tiger contained excessive fecal material. The cougar enclosure contained excessive feces. The enclosure housing three alpacas contained excessive fecal material. These enclosures need to be cleaned on a more frequent basis. The rotting material present in these animals' enclosures and shelter boxes can contaminate these animals as they lay in their enclosures. The animals can ingest this material when they groom themselves. Not removing old food waste promptly can lead to contamination of new food. Ingesting this rotten material can lead to potential health problems. Clean these enclosures more frequently to prevent a buildup of food and fecal waste to minimize odors and prevent potential health problems.

Prepared By:

KURT HAMMEL, D V M

KURT HAMMEL, D V M

USDA, APHIS, Animal Care

Date:

Oct-03-2014

Title:

VETERINARY MEDICAL OFFICER Inspector 1023

Received By:

(b)(6), (b)(7)(c)

Date:

Oct-06-2014

Title:



Inspection Report

3.131 (c) REPEAT SANITATION.

The alleyway leading to the butcher area as well as the area directly outside the building housing the butcher area and the alleyway and building next to the butcher area are filled with various debris, old equipment, boards, trash, buckets, tires and fencing. These areas provide ample hiding areas for rodents and other pests and numerous rodent holes were located throughout the facility. All this material must be removed to help control pests.

3.131 (d) REPEAT SANITATION.

Numerous rodent holes were located going under the shelter box for the cougar enclosure. Rodent holes were located inside the cougar enclosure. Multiple rodent holes were noted in the service alleyway for the tiger enclosures located on leopard row as well as in the tiger enclosures. Rodent feces was also noted in this alleyway. A rodent hole was seen in the service area for the tiger Pandora's enclosure and the tigers Lenny and Squiggy's enclosure. A rodent hole was noted going under the den area for the tiger JJ's enclosure. Rodent holes were noted in the service area for the lion and the tiger JJ. A rodent hole was noted going under the shelter box of the Asian black bear enclosure. Several other rodent holes were located near the enclosure and a live rat was seen entering a hole. Rodent holes and a live rat were seen near the white tiger enclosure. Rodents can be carriers of disease which may be harmful to the animals housed in these areas. A more effective means of pest control must be established for the facility.

3.132 REPEAT EMPLOYEES.

It is evident that due to the nature and severity of the animal husbandry issues at the facility that there is a lack of adequately trained employees. The facility relies on volunteer workers. The president of the facility stated to APHIS inspectors that there was no formalized scheduling of workers at the facility. A lack of properly trained employees can result in facility and animal conditions that result in unnecessary animal suffering. Animal numbers must be reduced or more properly trained workers need to be added. Workers need to be trained in the basic needs of the animals at the facility. Topics should include at a minimum: the importance of adequate water, the need for adequate bedding during times of extreme weather, the importance of cleaning and good housekeeping procedures, proper diet for different species of animals and observation of animals for abnormal conditions and behaviors. This training should be done in conjunction with the attending veterinarian or his designee. A list of topics covered and attendees must be documented for review by APHIS. A facility schedule needs to be developed that allows for adequate employee coverage in order to address all animal husbandry needs. Also the facility president is the only one authorized to work with the dangerous animals at the facility. All animal work must be done with the dangerous animals under his direct supervision. This limits the amount of time that is available to service the dangerous animal enclosures as the facility president is often offsite. This leads to poor sanitation in the dangerous animal enclosures. The facility president needs to find a way to be onsite more or hire trained staff to help run the facility.

Prepared By:

KURT HAMMEL, D V M

KURT HAMMEL, D V M

USDA, APHIS, Animal Care

Date:

Title:

VETERINARY MEDICAL OFFICER Inspector 1023

Oct-03-2014

Received By:

(b)(6), (b)(7)(c)

Date:

Title:

Oct-06-2014



Inspection Report

The inspection was conducted with the facility president on 10-2-14. An exit interview was conducted at that time and all non-compliant items were explained to the facility president and vice president. The need for veterinary care for the fox and APHIS expectations for veterinary documentation were explained at this time. A formal exit interview was conducted with the facility vice president on 10-6-14.

Prepared By:

KURT HAMMEL, D V M

KURT HAMMEL, D V M

USDA, APHIS, Animal Care

Date:

Title:

VETERINARY MEDICAL OFFICER Inspector 1023

Oct-03-2014

Received By:

(b)(6), (b)(7)(c)

Date:

Title:

Oct-06-2014



Cust No	Cert No	Site	Site Name	Inspection
6902	34-C-0227	001	SUMMER WIND FARM SANCTUARY	02-OCT-14

Count	Species
000001	Crab-eating/long-tailed macaque/cynomolgus monkey
000001	Japanese macaque
000001	Olive Baboon
000001	Hamadryas baboon
000001	Striped skunk
000001	Arctic fox
000001	Sheep or mouflon
000001	Lion
000005	Cat Adult
000001	Puma/mountain lion/cougar
000002	North American black bear
000001	Coyote
000009	Tiger
000004	Goat
000002	Bobcat
000002	Asiatic black bear
000005	Red fox
000001	Llama
000003	Alpaca
000003	Ring-tailed lemur
000001	Grizzly Bear
000047	Total



Inspection Report

Summer Wind Farm Sanctuary
6490 Mowerson Rd
Brown City, MI 48416

Customer ID: 6902

Certificate: 34-C-0227

Site: 001

SUMMER WIND FARM

Type: ROUTINE INSPECTION

Date: Oct-06-2014

This focused inspection was conducted to address the fox cited under 2.40(b)(2) on the inspection conducted on 10-2-14. The fox received veterinary treatment on 10-2-14. Documentation of this was reviewed by the inspector.

No non-compliant items identified during this inspection.

Exit interview conducted with the facility president.

Prepared By:

KURT HAMMEL, D V M

KURT HAMMEL, D V M USDA, APHIS, Animal Care

Title: VETERINARY MEDICAL OFFICER Inspector: 1023

Date:

Oct-06-2014

Received By:

(b)(6), (b)(7)(c)

Date:

Oct-06-2014



Inspection Report

Summer Wind Farm Sanctuary
6490 Mowerson Rd
Brown City, MI 48416

Customer ID: 6902

Certificate: 34-C-0227

Site: 001

SUMMER WIND FARMS

Type: ROUTINE INSPECTION

Date: Nov-04-2014

2.40 (a) (1) REPEAT

ATTENDING VETERINARIAN AND ADEQUATE VETERINARY CARE (DEALERS AND EXHIBITORS).

The written program of veterinary care still does not include bobcats. Bobcats are now present at the facility. It is essential that these animals be included in the program of veterinary care. Veterinary recommendations for care of these animals should be included in the program. APHIS inspectors then use this information while inspecting the animals in order to determine if veterinary recommendations are being followed by the facility. This program is a valuable tool in order to ensure the continuing health and comfort of these animals. Bobcats need to be included on the program of veterinary care.

3.125 (a) REPEAT

FACILITIES, GENERAL.

The primary enclosure housing three foxes still has several areas of the wire lining the enclosure exposed by the digging of the foxes. Some of this wire has broken with exposed points and is an injury hazard. A section of exposed wire along the front of the enclosure has a gap that could allow a fox to escape. It is possible that a fox could escape or become trapped or injured by the broken wire while attempting to escape. This enclosure needs immediate repair to contain and protect the foxes housed in it.

3.125 (c) REPEAT

FACILITIES, GENERAL.

The produce cooler contains spoiled produce. Raspberries covered with white mold, cucumbers with big white mold spots, and cauliflower with dark spots were all present in the food produce cooler. Molding and deteriorating squash, jalapenos, a water melon and pumpkin were also in the produce cooler. Spoiled produce must be removed promptly to prevent contamination of food intended to be fed to the animals. Sort and remove spoiled produce promptly. This cooler needs to be cleaned and have spoiled and deteriorating items removed in order to prevent contamination of food items that will be fed to the animals.

3.125 (d) REPEAT

FACILITIES, GENERAL.

Bones old bedding and food waste is on the ground outside the door to the service area for the lion and

Prepared By:

KURT HAMMEL, D V M

KURT HAMMEL, D V M

USDA, APHIS, Animal Care

Date:

Title:

VETERINARY MEDICAL OFFICER Inspector 1023

Nov-05-2014

Received By:

(b)(6), (b)(7)(c)

Date:

Title:

Nov-06-2014



Inspection Report

the tiger JJ. This material had been removed from their den areas. A cart of fecal material was present in the lama enclosure. Food and fecal waste needs to be removed promptly in order to minimize odors, vermin infestation and disease hazards. Remove this and all other waste materials in a prompt manner.

3.127 (d) REPEAT DIRECT NCI FACILITIES, OUTDOOR.

The president of the facility was not on site at the time of the inspection and had to be contacted to return to the facility. This took approximately 30 minutes. The perimeter fence gate near the primary residence of the property had been left standing open. This gate is located about 20 yards from the primary drive to the property. The perimeter fence gate near the grizzly bear enclosure was not locked. The lock had been set to appear that it was locked but when the inspector pulled on the lock it came open. The president of the facility stated that he had unlocked it earlier in the day. This gate is located on the far side of the compound at least two hundred yards away from and not visible from the primary residence. This facility gives guided tours only and so public barriers for the dangerous animal enclosures are in conjunction with the tour guides to keep patrons safe. Barrier gates were in place and locked for all dangerous animals but it would still be possible for unauthorized members of the public to climb these barriers and have contact with dangerous animals through their primary enclosure fences. The perimeter fence gates must be kept locked when not under direct supervision. Contact with these dangerous animals could be potentially fatal to a member of the public. It could lead to lethal consequences for the animals as well, if local health officials would require rabies testing. This test requires removal of the brain. These perimeter gates need to be kept locked at all times that they are not in direct observation by an employee of the facility in order to ensure that members of the public do not enter without supervision.

There are several cooler wall units stacked within two feet of the perimeter fence. If an animal does escape from its primary enclosure it could easily breach the perimeter fence by leaping over it using this stack of cooler walls as a platform. Relocate these wall units away from the perimeter fence.

3.129 (a) REPEAT FEEDING.

An opened bag of pig food was noted in the produce cooler. Opened bags of food need to be placed in covered containers to prevent possible contamination or infestation with pests. Opened feed that is accessible to rodents also serves to attract them to the facility. This is very important at this facility as it is overrun with rodents. Numerous rodent holes were present throughout the facility and a rat and mouse were both seen by inspectors during the course of inspection. Rodent feces has been observed by the inspectors in this produce cooler on a previous inspection. Rodents can be carriers of disease which may be harmful to animals at this facility.

3.130 REPEAT WATERING.

The water receptacle for the enclosure containing the tiger known as Sher Kahn had a green algae scum lining its interior. It also had what appeared to be tiger feces floating in it. The water receptacle in the enclosure housing one fox had a layer of algae scum lining its interior. These receptacles are not being

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kept clean and sanitary. Dirty water receptacles can affect water palatability. It can also lead to contamination of the water by pathogenic organisms. Water palatability is very important as poor water palatability can lead to decreased consumption. Decreased water consumption can lead to renal function problems. The majority of the large cats at this facility are advanced in age, making them especially susceptible to kidney problems. Clean this water receptacle. Clean all water receptacles as often as need to keep the water clean.

3.131 (a) REPEAT SANITATION.

There was excessive feces in the enclosures housing the tigers, Xena, Sher Kahn and Sundar. The Asian black bear enclosure contained excessive fecal material. This fecal material was turning white an indication to the inspectors that it had been present in the enclosure for some time. The enclosure housing the white tiger contained excessive fecal material. The enclosure housing three alpacas contained excessive fecal material. These enclosures need to be cleaned on a more frequent basis. The fecal material present in these animals' enclosures can contaminate these animals as they lay in their enclosures. The animals can ingest this material when they groom themselves. Ingesting this fecal material can lead to potential health problems. Clean these enclosures more frequently to prevent a buildup of fecal material to minimize odors and prevent potential health problems.

3.131 (c) REPEAT SANITATION.

The alleyway leading to the butcher area as well as the buildings along this alleyway is filled with various trash, debris, fencing pipe and old equipment. The area directly outside the building housing the butcher area and the alleyway and building next to the butcher area are also filled with various debris, old equipment, boards, trash, buckets, tires and fencing. These areas provide ample hiding areas for rodents and other pests. Numerous rodent holes were located throughout the facility. A rat was seen in the butcher area used to prepare the meat fed to the big cats and a mouse was seen in the warm room area. All this material must be removed to help control the rodent infestation of this property.

3.131 (d) REPEAT SANITATION.

Numerous rodent holes were located throughout the facility. Rodent holes were noted in the enclosure for the tiger Xena as well as the den area for this enclosure, located on leopard row. The empty enclosure on leopard row contained rodent holes. Rodent holes were seen in the service area for the tiger Pandora's enclosure and the tigers Lenny and Squiggy's enclosure. A rodent hole was noted in the service area for the lion and the tiger JJ. A rodent hole was noted going under the shelter box of the Asian black bear enclosure. Numerous rodent holes were seen near the white tiger enclosure. Rodent holes were seen going under the den for the cougar enclosure. Rodent holes were also seen inside the den area for the cougar enclosure. A live rat was seen by the inspector in the meat butchering area. A live mouse was seen by both inspectors in the warm room. Rodents can be carriers of disease which may be harmful to the animals housed in these areas. A more effective means of pest control must be established for the facility.

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3.132

REPEAT

EMPLOYEES.

It is evident that due to the nature and severity of the animal husbandry issues at the facility that there is a lack of adequately trained employees. The facility relies on volunteer workers. The president of the facility stated to APHIS inspectors that there was no formalized scheduling of workers at the facility. A lack of properly trained employees can result in facility and animal conditions that result in unnecessary animal suffering. Animal numbers must be reduced or more properly trained workers need to be added. Workers need to be trained in the basic needs of the animals at the facility. Topics should include at a minimum: the importance of adequate water, the need for adequate bedding during times of extreme weather, the importance of cleaning and good housekeeping procedures, proper diet for different species of animals and observation of animals for abnormal conditions and behaviors. This training should be done in conjunction with the attending veterinarian or his designee. A list of topics covered and attendees must be documented for review by APHIS. A facility schedule needs to be developed that allows for adequate employee coverage in order to address all animal husbandry needs. Also the facility president is the only one authorized to work with the dangerous animals at the facility. All animal work must be done with the dangerous animals under his direct supervision. This limits the amount of time that is available to service the dangerous animal enclosures as the facility president is often offsite. This leads to poor sanitation in the dangerous animal enclosures. The facility president needs to find a way to be onsite more or hire trained staff to help run the facility.

This inspection was conducted with the facility president on 11-4-14. An exit interview was conducted at that time and all non-compliant items were explained to the president. A formal exit interview was conducted with the facility president on 11-6-14.

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Date:

Nov-06-2014

Title:



Inspection Report

Summer Wind Farm Sanctuary
6490 Mowerson Rd
Brown City, MI 48416

Customer ID: 6902

Certificate: 34-C-0227

Site: 001

SUMMER WIND FARMS

Type: ROUTINE INSPECTION

Date: Dec-16-2014

2.40 (b) (2) REPEAT

ATTENDING VETERINARIAN AND ADEQUATE VETERINARY CARE (DEALERS AND EXHIBITORS).

A brown goat was noted by the inspectors which appeared to be having difficulty walking. The goat moved stiffly and seemed hesitant to move. This goat had long toes on both of the rear feet. These hoofs are in need of trimming. Long overgrown hoofs can cause conformation issues and joint problems. Trim this goat's feet. This goat also requires evaluation by the attending veterinarian to determine if it has any other problems resulting in its stiff gait and if any other treatment is required. This goat is to be evaluated by the attending veterinarian by close of business on 12-19-14.

2.40 (b) (3) REPEAT

ATTENDING VETERINARIAN AND ADEQUATE VETERINARY CARE (DEALERS AND EXHIBITORS).

A brown goat was noted by the inspectors which appeared to be having difficulty walking. The goat moved stiffly and seemed hesitant to move. This goat had long toes on both of the rear feet. These hoofs are in need of trimming. Long overgrown hoofs can cause conformation issues and joint problems. No one at the facility had noticed the condition of this goat. Failure to observe health issues and promptly report them to the attending veterinarian will lead to unnecessary suffering and in extreme cases even possible animal death. Thorough daily observations of all animals should be made. Animals with known problems should receive extra scrutiny. Report all health issues promptly to the veterinarian.

3.11 (a) REPEAT

CLEANING, SANITIZATION, HOUSEKEEPING, AND PEST CONTROL.

Two domestic cats are housed in an enclosure that contains one litter box. Three domestic cats are housed in an enclosure also with one litter box. These litter boxes had excessive feces in them. Primary enclosures are to be cleaned of fecal material daily. Excessive feces in litter boxes can lead to odor problems. It can also be a potential source of disease and pest control issues. Excessively dirty litter boxes can be a source of discomfort to the cats as they will hesitate to use the boxes when they are overly soiled. The cats in the enclosure housing three cats were defecating outside their litter box. This could result in soiling of the cats and ingestion of feces as they groom themselves. This can lead to parasite and other potential infections. Clean litter boxes daily.

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Dec-16-2014



Inspection Report

3.125 (a) REPEAT

FACILITIES, GENERAL.

The primary enclosure housing three foxes still has an area of the wire lining the enclosure exposed by the digging of the foxes. Some of this wire has broken with exposed points and is an injury hazard. It is possible that a fox could escape or become trapped or injured by the broken wire while attempting to escape. This enclosure needs immediate repair to contain and protect the foxes housed in it.

The skunk escaped while its enclosure was being cleaned. It is now loose in the warm room and is thought to be hiding under the pools set up for alligators in the warm room. The skunk is hiding amongst the plumbing and electrical wiring for these pools. The inspectors observed at least one electrical wire in this service area. This skunk must be captured as soon as possible to prevent any possible injury. This animal needs to be contained while its enclosure is being cleaned in order to prevent any possible injury or a possible escape from the warm room area.

3.125 (c) REPEAT

FACILITIES, GENERAL.

The produce cooler contains spoiled produce. Cucumbers covered with white mold spots, deteriorating broccoli with dark spots, softening tomatoes, brown and discoloring pears and apples along with other spoiling produce were all present in the produce cooler. Spoiled produce must be removed promptly to prevent contamination of food intended to be fed to the animals. Sort and remove spoiled produce promptly. This cooler needs to be cleaned and have spoiled and deteriorating items removed in order to prevent contamination of food items that will be fed to the animals.

The produce sorting area of the produce cooler contained two gallons of bleach placed on top of a pail of food intended to be fed to the bears. Some brown liquid could be seen on top of the lid to this pail. Chemicals stored directly on top of food items are a hazard to animal consuming these food items. Accidental contamination of food items could lead to serious injury to the animals ingesting them. Bleach can cause severe injury if ingested. Chemicals must not be stored in the produce cooler. Remove all chemicals from the produce cooler.

The meat cooler had a horrible ammonia like odor mixed with the odor of rotten and decaying meat. This odor makes it very hard to determine if the meat items stored in this cooler are fit for animal consumption. Clean the cooler, identify the source of the odor and eliminate it.

3.129 (b) REPEAT

FEEDING.

The food receptacle box for the enclosure housing two Asian black bears contained a large amount of rotting food debris. Any food fed in these areas is going to be contaminated by the rotting material present. These feeders need to be cleaned and made sanitary to ensure that the food fed to the bears is wholesome and free from bacterial or pest infestation which could result in health issues for the bears.

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Dec-18-2014

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Inspection Report

3.131 (a) REPEAT

SANITATION.

There was excessive feces in the enclosures housing the tigers, Xena, Sher Kahn and Sundar. The Asian black bear enclosure contained excessive fecal material. The enclosure housing three alpacas contained excessive fecal material. Excessive fecal material was also present in the shelter for this enclosure. The lama enclosure contained excessive fecal material. The shelter for the cougar enclosure contained a large amount of rotting food waste. These enclosures need to be cleaned on a more frequent basis. Uneaten food must be removed in a timely fashion. Rotting food debris can contaminate the animal enclosures. The fecal material and rotting food present in these animals' enclosures can contaminate these animals as they lay in their enclosures. The animals can ingest this material when they groom themselves. Ingesting this fecal and rotting meat material can lead to potential health problems. Clean these enclosures more frequently to prevent a buildup of fecal material and rotting food waste to minimize odors and prevent potential health problems.

3.131 (c) REPEAT

SANITATION.

The alleyway leading to the butcher area as well as the buildings along this alleyway are filled with various trash, debris, fencing, pipe and old equipment. The building next to the butcher area is also filled with various debris, old equipment, boards, trash, buckets, tires and fencing. These areas provide ample hiding areas for rodents and other pests. Numerous rodent holes were located throughout the facility. Rodent feces was noted at the facility. Mouse feces was seen in the warm room area. All this material must be removed to help control the rodent infestation of this property.

3.131 (d) REPEAT

SANITATION.

Numerous rodent holes were located throughout the facility. Rodent holes were noted in the service area and an animal enclosure located on leopard row. Rodent holes were noted outside the shelter area for the tiger JJ's enclosure. Numerous rodent holes were seen near the white tiger and Asian black bear enclosures. Rodent feces was seen near the white tiger enclosure. Rodent holes were seen going under the den for the cougar enclosure. A rodent hole was also seen inside the den area for the cougar enclosure. Mouse feces was seen by the inspectors in the warm room. Rodents can be carriers of disease which may be harmful to the animals housed in these areas. A more effective means of pest control must be established for the facility.

3.132 REPEAT

EMPLOYEES.

It is evident that due to the nature and severity of the animal husbandry issues at the facility that there is a lack of adequately trained employees. The facility relies on volunteer workers. The president of the facility stated to APHIS inspectors that there was no formalized scheduling of workers at the facility. A lack of properly trained employees can result in facility and animal conditions that result in unnecessary animal suffering. Animal numbers must be reduced or more properly trained workers need to be added. Workers need to be trained in the basic needs of the animals at the facility. Topics should include at a

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Dec-18-2014



Inspection Report

minimum; the importance of adequate water, the need for adequate bedding during times of extreme weather; the importance of cleaning and good housekeeping procedures, proper diet for different species of animals and observation of animals for abnormal conditions and behaviors. This training should be done in conjunction with the attending veterinarian or his designee. A list of topics covered and attendees must be documented for review by APHIS. A facility schedule needs to be developed that allows for adequate employee coverage in order to address all animal husbandry needs. Also the facility president is the only one authorized to work with the dangerous animals at the facility. All animal work must be done with the dangerous animals under his direct supervision. This limits the amount of time that is available to service the dangerous animal enclosures as the facility president is often offsite. This leads to poor sanitation in the dangerous animal enclosures. The facility president needs to find a way to be onsite more or hire trained staff to help run the facility.

This inspection was conducted with the facility president on 12-16-14. An exit interview was conducted at that time and all non-compliant items were explained to the president. APHIS expectations regarding the goat were made clear to the facility president at that time. The president stated that the goat would be seen by the facility attending veterinarian by the close of business on 12-19-14. A formal exit interview was conducted with the facility president on 12-18-14.

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Date:

Dec-18-2014

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Inspection Report

Summer Wind Farm Sanctuary
6490 Mowerson Rd
Brown City, MI 48416

Customer ID: 6902

Certificate: 34-C-0227

Site: 001

SUMMER WIND FARMS

Type: ROUTINE INSPECTION

Date: Feb-10-2015

2.40 (b) (2) REPEAT DIRECT NCI

ATTENDING VETERINARIAN AND ADEQUATE VETERINARY CARE (DEALERS AND EXHIBITORS).

A brown goat that was noted by the inspectors on the inspection of 12-16-14 as lame and having difficulty moving still appeared to be having difficulty walking. The goat moved stiffly and seemed hesitant to move or place weight on its right rear leg. This goat had been seen by the attending veterinarian according to the facility president. It was diagnosed with arthritis and given an injection of cortisone according to the facility president. This had helped the goat according to the facility president. This goat requires evaluation by the attending veterinarian and additional treatment to alleviate its pain and suffering. This goat is to be evaluated by the attending veterinarian by close of business on 2-11-15.

The tiger known as Sher Kahn was very hesitant to stand. When he did stand the muscles of all of his legs were trembling and the tiger appeared to be very weak. The tiger moved very slowly and stiffly. The tiger had not eaten any of its food from the night before. The facility president was aware of this animals condition and stated that the animal was old and had arthritis. This tiger was not on any treatment according to the facility president. This tiger is suffering in its current condition. This tiger requires evaluation by the attending veterinarian for treatment to alleviate its pain and suffering. This tiger is to be evaluated by the attending veterinarian by close of business on 2-11-15.

The macaque known as Huey had a wound on the tip of its tail. This lesion was about 1/2 inch long and was red and raw. Tail wounds of this nature can spread rapidly if not treated in a timely fashion as the animal will continue to pick at this area. This can lead to infection which can ultimately require tail tip amputation. Wounds must be treated promptly to avoid unnecessary pain and suffering. This monkey requires evaluation by the attending veterinarian for treatment. This monkey is to be evaluated by the attending veterinarian by close of business on 2-11-15.

Documentation of the veterinary evaluation for these animals with treatment recommendations and records must be maintained and available for review by APHIS officials.

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Feb-10-2015



Inspection Report

2.40 (b) (3) REPEAT

ATTENDING VETERINARIAN AND ADEQUATE VETERINARY CARE (DEALERS AND EXHIBITORS).

The macaque known as Huey had a wound on the tip of its tail. This lesion was about 1/2 inch long and was red and raw. Tail wounds of this nature can spread rapidly if not treated in a timely fashion as the animal will continue to pick at this area. This can lead to infection which can ultimately require tail tip amputation. No one at the facility had noticed the condition of this monkey. Failure to observe health issues and promptly report them to the attending veterinarian will lead to unnecessary suffering and in extreme cases even possible animal death. Thorough daily observations of all animals should be made. Animals with known problems should receive extra scrutiny. Report all health issues promptly to the veterinarian.

3.125 (c) REPEAT

FACILITIES, GENERAL.

The produce cooler contains spoiled produce. Oranges with white mold spots, deteriorating radishes, softening apples, molding ginger, molding cheese, deteriorating squash and peppers along with other spoiling produce were all present in the produce cooler. Spoiled produce must be removed promptly to prevent contamination of food intended to be fed to the animals. Sort and remove spoiled produce promptly. This cooler needs to be cleaned and have spoiled and deteriorating items removed in order to prevent contamination of food items that will be fed to the animals.

The produce sorting area of the produce cooler contained two chainsaws that had been used to butcher the previous day. These saws were covered in blood and tissue. These saws must be cleaned and sanitized promptly after use. They should not be stored in the produce cooler where it is possible for the material on them or the gas and oil in them to contaminate produce intended for animal feed.

The meat cooler had a horrible ammonia like odor mixed with the odor of rotten and decaying meat. This odor makes it very hard to determine if the meat items stored in this cooler are fit for animal consumption. Clean the cooler, identify the source of the odor and eliminate it.

3.127 (b) REPEAT DIRECT NCI

FACILITIES, OUTDOOR.

The shelter for the enclosures housing the three alpacas has no bedding. The enclosure for the shelter housing the lama has no bedding. The enclosure for the shelter housing one sheep and four goats has no bedding. The enclosure housing the white tiger has very little bedding. The expected low temperature in the area is 12 degrees tonight. Adequate bedding must be provided to keep these animals from experiencing unnecessary discomfort. Provide these animals with bedding in their shelters.

3.129 (a) REPEAT

FEEDING.

The enclosure containing the three alpacas and the enclosure containing four goats and one sheep each had a large pan of dog food in them. Feeding a diet not intended to be fed to these animals could lead to digestive issues or nutritional deficits. Feed a diet that is adequate to meet the nutritional needs of these

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Inspection Report

3.132

REPEAT

EMPLOYEES.

It is evident that due to the nature and severity of the animal husbandry issues at the facility that there is a lack of adequately trained employees. The facility relies on volunteer workers. The president of the facility stated to APHIS inspectors that there was no formalized scheduling of workers at the facility. A lack of properly trained employees can result in facility and animal conditions that result in unnecessary animal suffering. Animal numbers must be reduced or more properly trained workers need to be added. Workers need to be trained in the basic needs of the animals at the facility. Topics should include at a minimum: the need for adequate bedding during times of extreme weather, the importance of cleaning and good housekeeping procedures, proper diet for different species of animals and observation of animals for abnormal conditions and behaviors. This training should be done in conjunction with the attending veterinarian or his designee. A list of topics covered and attendees must be documented for review by APHIS. A facility schedule needs to be developed that allows for adequate employee coverage in order to address all animal husbandry needs. Also the facility president is the only one authorized to work with the dangerous animals at the facility. All animal work must be done with the dangerous animals under his direct supervision. This limits the amount of time that is available to service the dangerous animal enclosures as the facility president is often offsite. This leads to poor sanitation in the dangerous animal enclosures. The facility president needs to find a way to be onsite more or hire trained staff to help run the facility.

Inspection and exit interview conducted with the facility president.

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Feb-10-2015



Inspection Report

Summer Wind Farm Sanctuary
6490 Mowerson Rd
Brown City, MI 48416

Customer ID: 6902

Certificate: 34-C-0227

Site: 001

SUMMER WIND FARM

Type: ROUTINE INSPECTION

Date: Feb-12-2015

3.127

(b)

REPEAT DIRECT NCI

FACILITIES, OUTDOOR.

The enclosure housing the white tiger still has very little bedding. The expected low temperature in the area is -4 degrees tonight. Adequate bedding must be provided to keep this animal from experiencing unnecessary discomfort. Provide this animal with adequate bedding in its shelter.

This focused inspection was conducted to address the direct NCIs from the inspection conducted on 2-10-15. The animals cited in need of veterinary evaluation have been seen by the attending veterinarian and treatment plans have been implemented. The hoof stock enclosures all have adequate bedding.

Inspection and exit interview conducted with the facility president.

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Feb-12-2015



Inspection Report

Summer Wind Farm Sanctuary
6490 Mowerson Rd
Brown City, MI 48416

Customer ID: 6902
Certificate: 34-C-0227
Site: 001
SUMMER WIND FARMS
Type: ROUTINE INSPECTION
Date: Mar-24-2015

2.40 (b) (2) REPEAT

ATTENDING VETERINARIAN AND ADEQUATE VETERINARY CARE (DEALERS AND EXHIBITORS).

The tiger known as Sher Kahn would not stand even when prodded with the facility CEO's cane. The tiger had areas of hair missing from the top of both rear feet. The flesh below was bright pink. These lesions appeared to be from the tops of the feet being drug on the ground as the animal walked. The left front foot had an overgrown claw which extended all the way around and back into the foot pad. This condition can be extremely painful. The facility CEO was not aware of these lesions. This tiger is suffering in its current condition. This tiger requires evaluation by the attending veterinarian for treatment to alleviate its pain and suffering. The facility attending veterinarian was consulted about the condition of this tiger at the conclusion of the inspection by the facility CEO.

The macaque known as Huey had a small wound on the tip of its tail. This lesion was about 1/4 inch long and was red and raw. Medication has been prescribed by the attending veterinarian and is on hand to use as needed for this condition. Tail wounds of this nature can spread rapidly if not treated in a timely fashion as the animal will continue to pick at this area. This can lead to infection which can ultimately require tail tip amputation. Wounds must be treated promptly to avoid unnecessary pain and suffering. This monkey requires administration of the medication prescribed by the attending veterinarian for this condition.

Documentation of the veterinary evaluation for the tiger with treatment recommendations and treatment records for both animals must be maintained and available for review by APHIS officials.

2.40 (b) (3) REPEAT

ATTENDING VETERINARIAN AND ADEQUATE VETERINARY CARE (DEALERS AND EXHIBITORS).

The tiger known as Sher Kahn would not stand even when prodded with the facility CEO's cane. The tiger had areas of hair missing from the top of both rear feet. The flesh below was bright pink. These lesions appeared to be from the tops of the feet being drug on the ground as the animal walked. The left front foot had an overgrown claw which extended all the way around and back into the foot pad. This condition

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Mar-24-2015

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Mar-24-2015



Inspection Report

can be extremely painful. These lesions had not been noticed by any facility workers. This tiger is suffering in its current condition.

The macaque known as Huey had a small wound on the tip of its tail. This lesion was about 1/4 inch long and was red and raw. This lesion had not been noticed by any facility workers. Medication has been prescribed by the attending veterinarian and is on hand to use as needed for this condition. Tail wounds of this nature can spread rapidly if not treated in a timely fashion as the animal will continue to pick at this area. This can lead to infection which can ultimately require tail tip amputation. Wounds must be treated promptly to avoid unnecessary pain and suffering.

Failure to observe health issues and promptly treat and/or report them to the attending veterinarian will lead to unnecessary suffering and in extreme cases even possible animal death. Thorough daily observations of all animals should be made. Animals with known problems should receive extra scrutiny. Report all health issues promptly to the veterinarian.

3.125 (c) REPEAT FACILITIES, GENERAL.

The meat cooler had a horrible ammonia like odor mixed with the odor of rotten and decaying meat. This odor makes it very hard to determine if the meat items stored in this cooler are fit for animal consumption. Clean the cooler, identify the source of the odor and eliminate it.

3.132 REPEAT EMPLOYEES.

A training for facility employees has still not been conducted. The facility relies on volunteer workers. A lack of properly trained employees can result in facility and animal conditions that result in unnecessary animal suffering. Workers need to be trained in the basic needs of the animals at the facility. Topics should include at a minimum: the importance of adequate water, the need for adequate bedding during times of extreme weather, the importance of cleaning and good housekeeping procedures, proper diet for different species of animals and observation of animals for abnormal conditions and behaviors. This training should be done in conjunction with the attending veterinarian or his designee. A list of topics covered and attendees must be documented for review by APHIS.

Inspection and exit interview conducted with the facility CEO.

Prepared By:

KURT HAMMEL, D V M

KURT HAMMEL, D V M

USDA, APHIS, Animal Care

Date:

Title:

VETERINARY MEDICAL OFFICER Inspector 1023

Mar-24-2015

Received By:

(b)(6), (b)(7)(c)

Date:

Title:

Mar-24-2015



Inspection Report

Summer Wind Farm Sanctuary
6490 Mowerson Rd
Brown City, MI 48416

Customer ID: 6902

Certificate: 34-C-0227

Site: 001

SUMMER WIND FARM

Type: ROUTINE INSPECTION

Date: Mar-25-2015

This inspection was conducted to address the direct NCI's from the inspection conducted on 3-24-15.
The animals cited in need of treatment and/or veterinary evaluation have been addressed.

No non-compliant items identified this inspection.

Exit interview conducted with facility CEO.

Prepared By:

KURT HAMMEL, D V M

KURT HAMMEL, D V M USDA, APHIS, Animal Care

Title: VETERINARY MEDICAL OFFICER Inspector: 1023

Date:

Mar-25-2015

Received By:

(b)(6), (b)(7)(c)

Date:

Mar-25-2015



Inspection Report

Summer Wind Farm Sanctuary
6490 Mowerson Rd
Brown City, MI 48416

Customer ID: 6902
Certificate: 34-C-0227
Site: 001
SUMMER WIND FARMS

Type: ROUTINE INSPECTION
Date: May-05-2015

2.40 (b) (2) REPEAT

ATTENDING VETERINARIAN AND ADEQUATE VETERINARY CARE (DEALERS AND EXHIBITORS).

The tiger known as Mohan has a skin lesion on his left side. The hair was missing and the skin underneath appeared raw and irritated. This area was about 6" x 6". If left untreated this lesion could continue to spread and could become infected and quite painful. The attending veterinarian should be consulted regarding the condition of this tiger. Documentation of the veterinarian's treatment recommendations and a treatment record must be maintained and available for review by APHIS officials. This should be done by the end of the day 6-5-15.

2.40 (b) (3) REPEAT

ATTENDING VETERINARIAN AND ADEQUATE VETERINARY CARE (DEALERS AND EXHIBITORS).

The tiger known as Mohan has a skin lesion on his left side. The hair was missing and the skin underneath appeared raw and irritated. This area was about 6" x 6". If left untreated this lesion could continue to spread and could become infected and quite painful. No one at the facility had noticed this lesion. The lesion appeared to be several days old. Failure to observe health issues and promptly treat and/or report them to the attending veterinarian will lead to unnecessary suffering and in extreme cases even possible animal death. Thorough daily observations of all animals should be made. Animals with known problems should receive extra scrutiny. Report all health issues promptly to the veterinarian.

3.132 REPEAT

EMPLOYEES.

A training for facility employees has still not been conducted. The facility relies on volunteer workers. A lack of properly trained employees can result in facility and animal conditions that result in unnecessary animal suffering. Workers need to be trained in the basic needs of the animals at the facility. Observation of animals for abnormal conditions and behaviors should be one of the topics covered. This training should be done in conjunction with the attending veterinarian or his designee. A list of topics covered and attendees must be documented for review by APHIS.

Inspection and exit interview conducted with the facility CEO.

Prepared By:

KURT HAMMEL, D V M

KURT HAMMEL, D V M USDA, APHIS, Animal Care

Title: VETERINARY MEDICAL OFFICER Inspector 1023

Date:
May-05-2015

Received By:

(b)(6), (b)(7)(c)

Date:
May-05-2015

Title:



Inspection Report

Summer Wind Farm Sanctuary
6490 Mowerson Rd
Brown City, MI 48416

Customer ID: 6902

Certificate: 34-C-0227

Site: 001

SUMMER WIND FARM

Type: ATTEMPTED INSPECTION

Date: Jan-30-2015

2.126 (b)

ACCESS AND INSPECTION OF RECORDS AND PROPERTY; SUBMISSION OF ITINERARIES.

Section 2.126(b) - Access and inspection of records and property: A responsible adult shall be made available to accompany APHIS officials during the inspection process.

A responsible adult was not available to accompany APHIS Officials during the inspection process at 11:00 AM on 06/30/2015.

Prepared By:

KURT HAMMEL, D V M

KURT HAMMEL, D V M USDA, APHIS, Animal Care

Title: VETERINARY MEDICAL OFFICER Inspector 1023

Date:

Jul-01-2015

Received By:

(b)(6), (b)(7)(c)

Date:

Jul-01-2015



Inspection Report

Summer Wind Farm Sanctuary
6490 Mowerson Rd
Brown City, MI 48416

Customer ID: 6902

Certificate 34-C-0227

Site: 001

SUMMER WIND FARMS

Type: ROUTINE INSPECTION

Date: Jul-22-2015

3.11 (a) REPEAT

CLEANING, SANITIZATION, HOUSEKEEPING, AND PEST CONTROL.

The two domestic cats are housed in an enclosure that contains two litter boxes. These litter boxes had excessive feces in them. Excessive feces in the litter box can lead to odor problems. It can also be a potential source of disease and pest control issues. Excessively dirty litter boxes can be a source of discomfort to the cats as they will hesitate to use the boxes when they are overly soiled. The cats in this enclosure were defecating outside the box which could result in soiling of the cats and ingestion of feces as they groom themselves. This can lead to parasite and other potential infections. Clean litter boxes daily.

3.83 REPEAT

WATERING.

The water receptacle in the Japanese macaque enclosure has a layer of slime lining its interior. The water receptacles in each of the baboon enclosures have a layer of scum and slime lining their interiors. Debris is present in these water receptacles as well. Water receptacles must be cleaned and sanitized as often as necessary to keep them free from contamination but at least every two weeks. These water receptacles have only been power sprayed. Unclean water receptacles can affect water palatability and lead to decreased water consumption. This can have an adverse effect on the health of the animals in these enclosures. Contaminated water can also lead to other potential health issues for these animals such as bacterial or parasitic infection. Clean these water receptacles as often as needed to keep the water in the receptacles clean and sanitary.

3.125 (a) REPEAT

FACILITIES, GENERAL.

The two strands of hot wire at the top of the enclosure housing the American black bears have vines climbing on them. These bears can climb. It would be possible for these bears to escape this enclosure with the hot wire out. The grizzly bear enclosure also has vines growing on its hot wire strands located at the top of the enclosure. These are dangerous animals that could cause significant injury to people within the perimeter fence or other animals located inside the perimeter fence. Remove these vines immediately.

The resting platform in the coyote enclosure has become worn and chewed to a point that its structural

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Date:

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Jul-22-2015

Received By:

(b)(6), (b)(7)(c)

Date:

Title:

Jul-23-2015



Inspection Report

integrity may be compromised. The shelf or ramp leading up to it could break. Two screws are also protruding down from the shelf. This shelf needs to be repaired/or replaced in order to prevent any possible injuries to the coyote using it. Repair this platform.

3.125 (c) **REPEAT**

FACILITIES, GENERAL.

The produce cooler contains spoiled produce. Deteriorating cherries and grapes were present in the cooler. Molding raspberries were in the cooler. Peppers and yellow squash were discolored and soft. A package of deteriorating greens dripped brown liquid when held for closer inspection. Spoiled produce must be removed promptly to prevent contamination of food intended to be fed to the animals. Sort and remove spoiled produce promptly. This cooler needs to be cleaned and have spoiled and deteriorating items removed in order to prevent contamination of food items that will be fed to the animals.

3.125 (d) **REPEAT**

FACILITIES, GENERAL.

An open dumpster located about 15 to 20 feet away from the butcher area used to process meat contains cow parts. The stench emanating from the dumpster is overwhelming and smells of rot and decay. The dumpster is swarming with flies and infested with maggots. Flies were seen by the inspectors on the counter in the butcher area. A litter box in a pen that contained three domestic cats removed two days ago is filled full of feces. Bones are on the floor of the service area for the enclosures housing the tigers Pandora, Lenny and Squiggy. A container of molding and sprouting grain is located next to the Syrian brown bear enclosure. Food and fecal waste needs to be removed promptly in order to minimize odors, vermin infestation and disease hazards. Remove this and all other waste materials in a prompt manner.

3.129 (b) **REPEAT**

FEEDING.

The food receptacle boxes for the enclosure housing two American black bears and the enclosure housing two Asian black bears contained a large amount of rotting food debris. The grizzly bear feed area contained rotting food debris. Any food fed in these areas is going to be contaminated by the rotting material present. These feeders need to be cleaned and made sanitary to ensure that the food fed to the bears is wholesome and free from bacterial or pest infestation which could result in health issues for the bears.

3.130 **REPEAT**

WATERING.

The white tiger was identified to us by the CEO of the facility as being "off feed". The water receptacle for the enclosure containing this tiger has a vine with berries on it growing next to it. Some of these berries are in the water. The CEO of the facility has no idea what type of berries are contaminating the water. These berries may be toxic for all anyone at the facility knows. This vine should be removed or the berries identified as harmless to the tiger. Clean this water receptacle to prevent possible harm to the animal by toxin ingestion.

Prepared By:

KURT HAMMEL, D V M

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USDA, APHIS, Animal Care

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Jul-22-2015

Received By:

(b)(6), (b)(7)(c)

Date:

Title:

Jul-23-2015



Inspection Report

3.131

(a)

REPEAT

SANITATION.

There was excessive feces and food waste in the enclosure housing the tiger Lilly. The tiger Kahn's enclosure contained excessive food waste. The tiger Sundar's enclosure contained excessive feces and his den contained excessive food waste. The den areas for the tigers Xena, Pandora and JJ contained excessive food waste. A bad odor of decay was present by the white tiger enclosure. Rotting food waste was present in the enclosure. This enclosure also contained excessive feces. The Asian black bear den box contained excessive food waste. The Asian black bear enclosure contained excessive fecal material. The grizzly bear enclosure contained excessive food waste. The enclosure housing the arctic fox contained a piece of rotting meat. The cougar enclosure contained rotting food waste buried under the bedding in the den area. This rotting material was covered with maggots and smelled of decay. These enclosures need to be cleaned on a more frequent basis. This rotting material and feces can lead to pest control issues. The rotting material present in these animals' enclosures and shelter boxes can contaminate these animals as they lay in their enclosures. The animals can ingest this material when they groom themselves. Not removing old food waste promptly can lead to contamination of new food. Ingesting this rotten material can lead to potential health problems. Clean these enclosures more frequently to prevent a buildup of food and fecal waste to minimize odors and prevent potential health problems.

3.131

(c)

REPEAT

SANITATION.

The alleyway leading to the butcher area as well as the area directly outside the building housing the butcher area and the alleyway and building next to the butcher area are filled with various debris, old equipment, boards, trash, buckets, tires and fencing. Several other buildings on the property are also filled with old equipment and debris and trash. Tall weeds are located throughout the facility. These areas provide ample hiding areas for rodents and other pests and numerous rodent holes were located throughout the facility. All this material must be removed to help control pests.

The counter in the butcher area is dirty with a black greasy material. The chain saw used for butchering is covered in meat and bone material from food processing. These things must be cleaned in order to ensure that processed meat does not become contaminated. Contaminated meat fed to the animals can make them ill and lead to unnecessary suffering.

The pools located in the grizzly bear, Asian black bear, American black bear and bobcat enclosures are very dirty. They contain large amounts of green water and algae. These pools must be drained and cleaned. The stagnant water in these pools can become breeding grounds for mosquitos which are vectors for several diseases which can make the animals ill.

Prepared By:

KURT HAMMEL, D V M

KURT HAMMEL, D V M

USDA, APHIS, Animal Care

Date:

Title:

VETERINARY MEDICAL OFFICER/Inspector 1023

Jul-22-2015

Received By:

(b)(6), (b)(7)(c)

Date:

Title:

Jul-23-2015



Inspection Report

3.131 (d)

REPEAT

SANITATION.

Numerous rodent holes were located throughout the facility. Rodent holes were located inside the cougar enclosure and the den for this enclosure. Multiple rodent holes were noted in the service alleyway for the tiger enclosures located on leopard row as well as in the tiger enclosures. Rodent holes were seen in the service area for the tiger Pandora's enclosure and the tigers Lenny and Squiggy's enclosure. Rodent holes were located going under the shelter box of the Asian black bear enclosure. Several other rodent holes were located near the enclosure. Rodent holes were seen near the white liger enclosure. Rodents can be carriers of disease which may be harmful to the animals housed in these areas. A more effective means of rodent control must be established for the facility.

Numerous flies and maggots were located in a dumpster located 15 to 20 feet from the meat processing area. Flies were seen on the counter in the meat processing area. Maggots were located in the cougar den in rotting food waste. Flies can be a vector for disease and must be controlled in order to keep animal enclosures and food processing areas clean. Eliminate rotten food waste promptly and clean animal enclosures on a regular basis to control flies.

3.132

REPEAT

EMPLOYEES.

It is evident that due to the nature and severity of the animal husbandry issues at the facility that there is a lack of adequately trained employees. The facility relies on volunteer workers. A lack of properly trained employees can result in facility and animal conditions that result in unnecessary animal suffering. Animal numbers must be reduced or more properly trained workers need to be added. A facility schedule needs to be developed that allows for adequate employee coverage in order to address all animal husbandry needs. For the most part, the facility CEO is the only one authorized to work with the dangerous animals at the facility as the other authorized party has very limited availability. All animal work must be done with the dangerous animals under his direct supervision. This limits the amount of time that is available to service the dangerous animal enclosures as the facility CEO is often offsite. This leads to poor sanitation in the dangerous animal enclosures. The facility CEO needs to find a way to be onsite more or hire trained staff to help run the facility.

An exit interview was conducted at the conclusion of the inspection with the facility CEO and other facility personnel. AC personnel present were Kurt Hammel and Carrie Bongard. A formal exit interview was conducted with the facility CEO and Kurt Hammel on 7-23-15.

Prepared By:

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KURT HAMMEL, D V M

USDA, APHIS, Animal Care

Date:

Title:

VETERINARY MEDICAL OFFICER Inspector 1023

Jul-22-2015

Received By:

(b)(6), (b)(7)(c)

Date:

Title:

Jul-23-2015



Inspection Report

Summer Wind Farm Sanctuary
6490 Mowerson Rd
Brown City, MI 48416

Customer ID: 6902

Certificate: 34-C-0227

Site: 001

SUMMER WIND FARMS

Type: ROUTINE INSPECTION

Date: Oct-06-2015

2.40 (b) (1)

ATTENDING VETERINARIAN AND ADEQUATE VETERINARY CARE (DEALERS AND EXHIBITORS).

Two juvenile Syrian brown bears are in an enclosure that will not accommodate their needs as adults. The enclosure is constructed of welded wire panels and wood. These wire panels will not be strong enough to contain the animals as adults. There are no lock outs to ensure safe servicing of the enclosure. The enclosure is not clean. It contains excess fecal material and the bedding is all wet. The entire enclosure has no dry areas for the bears to lie in. A new enclosure that can safely house these animals as adults must be constructed. An inadequate housing facilities leads to multiple problems including, poor sanitation, improper shelter from elements, failure to contain the animals and inadequate veterinary care.

Correct by: 11-7-15

2.40 (b) (2)

REPEAT

ATTENDING VETERINARIAN AND ADEQUATE VETERINARY CARE (DEALERS AND EXHIBITORS).

Since the time of the last inspection two animals were euthanized at the facility. An Arctic fox and a skunk were examined by the attending veterinarian and euthanasia was recommended. The CEO of the facility picked up some type of injection from the attending veterinarian that he then administered in the muscle of both animals to euthanize them. The Program of Veterinary care clearly states euthanasia will be administered by the veterinarian and that it is to be injected either intravenously or intraperitoneally. Improper euthanasia technique can result in prolonged animal suffering and undue distress. This is a very serious issue which must be corrected immediately. Consult with the attending veterinarian to decide and document who is authorized to conduct euthanasia. If the CEO is authorized, document which species and technique. Training is required to ensure that improper technique is not used again by the CEO. Documentation of training must be kept for review by APHIS officials.

Red berries were noted growing inside the black bear enclosure. This same type of vine was identified on a previous inspection growing next to the white tiger water receptacle with berries floating in the water. The CEO of the facility has no idea what type of berries these are. These berries may be toxic for all anyone at the facility knows. This vine should be removed or the berries identified as harmless. Remove these vines to prevent possible harm to the animals by toxin ingestion.

Prepared By:

KURT HAMMEL, D V M

KURT HAMMEL, D V M

USDA, APHIS, Animal Care

Date:

Title:

VETERINARY MEDICAL OFFICER Inspector 1023

Oct-07-2015

Received By:

(b)(6), (b)(7)(c)

Date:

Title:

Oct-08-2015



Inspection Report

3.75 (c) (3)

HOUSING FACILITIES, GENERAL.

The resting shelf in the Japanese Macaque enclosure contains more than a daily accumulation of feces. Areas that this animal comes in contact with must be spot cleaned daily. Clean this enclosure daily to minimize disease and odor problems that can be caused by excessive fecal material present in the enclosure.

Correct by: 10-9-15

3.83

REPEAT

WATERING.

The water receptacle in the Japanese macaque enclosure has a layer of grime lining its interior. The water receptacles in each of the baboon enclosures have a layer of scum and slime lining their interiors. Debris is present in these water receptacles as well. The crab eating macaque's water receptacle is full of leaves and debris. Water receptacles must be cleaned and sanitized as often as necessary to keep them free from contamination but at least every two weeks. These water receptacles have only been power sprayed and bleached. Detergent followed by bleach or a combination cleaning and disinfecting product must be used. Unclean water receptacles can affect water palatability and lead to decreased water consumption. This can have an adverse effect on the health of the animals in these enclosures. Contaminated water can also lead to other potential health issues for these animals such as bacterial or parasitic infection. Clean these water receptacles as often as needed to keep the water in the receptacles clean and sanitary.

3.125 (c)

REPEAT

FACILITIES, GENERAL.

The produce cooler contains spoiled produce. Deteriorating and liquefying boxes, bags and heads of lettuce were present in the cooler. A case of molding peppers was in the cooler. Cauliflower heads with dark black spots were in the cooler. Molding tomatoes were oozing juice onto softening apples in the case in which they were stored. Pears were discolored and deteriorating. Spoiled produce must be removed promptly to prevent contamination of food intended to be fed to the animals. Sort and remove spoiled produce promptly. This cooler needs to be cleaned and have spoiled and deteriorating items removed in order to prevent contamination of food items that will be fed to the animals. Although the CEO of the facility has stated that produce is sorted before feeding, the rotting condition of the produce just fed the night before to the American black bears would indicate that this is not always the case.

3.125 (d)

REPEAT

FACILITIES, GENERAL.

An open dumpster is located about 15 to 20 feet away from the butcher area used to process meat. It is overflowed with boxes, buckets and various debris. Empty boxes and containers are stacked next to the butcher area. A wheel barrow of fecal material and bones was stored in the alleyway to the leopard row big cat enclosures. Food and fecal waste needs to be removed promptly in order to minimize odors, vermin infestation and disease hazards. Remove this and all other waste materials in a prompt manner.

Prepared By:

KURT HAMMEL, D V M

KURT HAMMEL, D V M

USDA, APHIS, Animal Care

Date:

Title:

VETERINARY MEDICAL OFFICER Inspector 1023

Oct-07-2015

Received By:

(b)(6), (b)(7)(c)

Date:

Title:

Oct-08-2015



Inspection Report

The dumpster must be emptied more frequently as its current overflowing condition creates odor, disease and vermin infestation hazards.

3.127 (c)

FACILITIES, OUTDOOR.

The entire Syrian brown bear enclosure contains wet dirty bedding. These animals must have access to dry area to prevent needless discomfort and suffering. Ensure that these animals have access to dry resting area.

Correct by: 10-11-15

3.129 (b)

REPEAT

FEEDING.

The food receptacle boxes for the enclosure housing two American black bears and the enclosure housing two Asian black bears contained a large amount of rotting food debris. In the case of the American black bear enclosure, the CEO stated that the animals had just been fed the night before. Two pieces of fruit located near the top of the receptacle were brown, shriveled and discolored. This fruit must have been bad at the time it was fed to the bears. The grizzly bear feed area contained rotting food debris. Any food fed in these areas is going to be contaminated by the rotting material present. These feeders need to be cleaned and made sanitary to ensure that the food fed to the bears is wholesome and free from bacterial or pest infestation which could result in health issues for the bears. In fact, liquid diarrhea was present in both the American black bear enclosure and grizzly bear enclosure. This diarrhea could have resulted from the rotten food debris that these animals are consuming. If this diarrhea persists its cause requires investigation and veterinary consultation.

3.130

REPEAT

WATERING.

The water receptacles for the enclosures containing the tigers Lily and Hank have a layer of algae scum on their interiors indicating that they are not being cleaned adequately. The enclosure containing the Syrian brown bears has no water in the receptacle. The only source of water for the enclosure is a muddy pool of water. The water receptacle for the enclosure housing two bobcats has a layer of algae slime on its interior indicating that it is not being cleaned adequately. Unclean water receptacles can affect water palatability and lead to decreased water consumption. This can have an adverse effect on the health of the animals in these enclosures. Contaminated water can also lead to other potential health issues for these animals such as bacterial or parasitic infection. Clean these water receptacles as often as needed to keep the water in the receptacles clean and sanitary.

Prepared By:

KURT HAMMEL, D V M

KURT HAMMEL, D V M

USDA, APHIS, Animal Care

Date:

Title:

VETERINARY MEDICAL OFFICER/Inspector 1023

Oct-07-2015

Received By:

(b)(6), (b)(7)(c)

Date:

Title:

Oct-08-2015



Inspection Report

3.131 (a) REPEAT SANITATION.

There was excessive feces in the enclosures for the tiger Kahn and the tiger Sundar. The den areas for the tigers Pandora and JJ contained excessive bones and food waste. The tigers Lenny and Squigy had excessive food waste in their den. The white tiger enclosure had excessive food waste and fecal material turning white which indicated to me that it had been present for some time. The white tiger den contained excessive food waste. The Asian black bear enclosure and the American black bear enclosure contained excessive rotting food waste. The Asian black bear enclosure contained excessive fecal material. The grizzly bear enclosure contained excessive rotting food waste. The cougar enclosure contained rotting food waste in the den area. A strong odor of ammonia and decay emanated from this area. The enclosure housing two Syrian brown bears contained excessive feces. The coyote enclosure contained excessive fecal material. There was excessive food waste in the enclosures housing one gray colored fox, one red colored fox and the fox housed in the warm room. The enclosure containing one alpaca and the enclosure containing 4 alpacas had excessive fecal material in them. These enclosures need to be cleaned on a more frequent basis. This rotting material and feces can lead to pest control issues. The rotting material present in these animals' enclosures and shelter boxes can contaminate these animals as they lay in their enclosures. The animals can ingest this material when they groom themselves. Not removing old food waste promptly can lead to contamination of new food. Ingesting this rotten material can lead to potential health problems. Clean these enclosures more frequently to prevent a buildup of food and fecal waste to minimize odors and prevent potential health problems.

3.131 (c) REPEAT SANITATION.

The majority of the premise is filled with various debris, old equipment, boards, trash, buckets, tires and fence. Several other buildings on the property are also filled with old equipment and debris and trash. Tall weeds are located throughout the facility. These areas provide ample hiding areas for rodents and other pests and numerous rodent holes were located throughout the facility. All this material must be removed to help control pests.

The sink in the butcher area is dirty and filled with dirty utensils and cleaning supplies. The chain saw used for butchering is covered in meat and bone material from food processing. These things must be cleaned in order to ensure that processed meat does not become contaminated. Contaminated meat fed to the animals can make them ill and lead to unnecessary suffering.

The sink in the warm room area, the window above the sink and the area under the sink is very dirty. The condition of this area makes it impossible to keep food items clean as they are processed for the animals. These areas need to be cleaned to ensure food processed for animals is not contaminated.

The pools located in the grizzly bear, Asian black bear, American black bear and bobcat enclosures are very dirty. They contain large amounts of green water and algae. These pools must be drained and cleaned. Stagnate water in these pools can become breeding grounds for mosquitos which are vectors for several diseases which can make the animals ill.

Prepared By:

KURT HAMMEL, D V M

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USDA, APHIS, Animal Care

Date:

Title:

VETERINARY MEDICAL OFFICER Inspector 1023

Oct-07-2015

Received By:

(b)(6), (b)(7)(c)

Date:

Title:

Oct-08-2015



Inspection Report

3.131 (d)

REPEAT

SANITATION.

Numerous rodent holes were located throughout the facility. Rodent holes were located both inside and outside the cougar enclosure and the den for this enclosure. Rodent holes were noted in a vacant enclosure located on leopard row. Rodent holes were located going under the shelter box of the American black bear enclosure. Multiple rodent holes were located in the goose enclosure which is located very near the alpaca enclosure. Several other rodent holes were located near and around the white tiger enclosure and inside the white tiger den. The CEO for the facility remarked that the rats were really bad the end of July when they cut the surrounding fields. Rodents can be carriers of disease which may be harmful to the animals housed in these areas. A more effective means of rodent control must be established for the facility.

3.132

REPEAT

EMPLOYEES.

It is evident that due to the nature and severity of the animal husbandry issues at the facility that there is a lack of adequately trained employees. The facility relies on volunteer workers. A lack of properly trained employees can result in facility and animal conditions that result in unnecessary animal suffering. Animal numbers must be reduced or more properly trained workers need to be added. A facility schedule needs to be developed that allows for adequate employee coverage in order to address all animal husbandry needs. For the most part, the facility CEO is the only one authorized to work with the dangerous animals at the facility as the other authorized party has very limited availability. All animal work must be done with the dangerous animals under his direct supervision. This limits the amount of time that is available to service the dangerous animal enclosures as the facility CEO is often offsite. This leads to poor sanitation in the dangerous animal enclosures. The facility CEO needs to find a way to be onsite more or hire trained staff to help run the facility.

An exit interview was conducted at the conclusion of the inspection with the facility CEO. AC personnel present were Kurt Hammel and Carrie Bongard. A formal exit interview was conducted with the facility CEO and Kurt Hammel on 10-8-15.

Prepared By:

KURT HAMMEL, D V M

KURT HAMMEL, D V M

USDA, APHIS, Animal Care

Date:

Title:

VETERINARY MEDICAL OFFICER Inspector 1023

Oct-07-2015

Received By:

(b)(6), (b)(7)(c)

Date:

Title:

Oct-08-2015



Inspection Report

Summer Wind Farm Sanctuary
6490 Mowerson Rd
Brown City, MI 48416

Customer ID: 6902

Certificate 34-C-0227

Site: 001

SUMMER WIND FARMS

Type: ROUTINE INSPECTION

Date: Nov-18-2015

2.40 (b) (2) REPEAT

ATTENDING VETERINARIAN AND ADEQUATE VETERINARY CARE (DEALERS AND EXHIBITORS).

The cougar known as Mattie has several crusty appearing skin lesions. These lesions are located on the right hip and on the back of the animal just above the base of the tail. These lesions appear very similar to the lesions on tigers at the facility that are being treated for a diagnosed ringworm infection. If left untreated these lesions will continue to spread and could cause this animal significant discomfort. The attending veterinarian should be consulted regarding the condition of this cougar. Documentation of the veterinarian's treatment recommendations and a treatment record must be maintained and available for review by APHIS officials. The facility CEO stated that this consultation would be done by the end of the day.

2.40 (b) (3) REPEAT

ATTENDING VETERINARIAN AND ADEQUATE VETERINARY CARE (DEALERS AND EXHIBITORS).

The cougar known as Mattie has several crusty appearing skin lesions. These lesions are located on the right hip and on the back of the animal just above the base of the tail. These lesions appear very similar to the lesions on tigers at the facility that are being treated for a diagnosed ringworm infection. No one at the facility had noticed these lesions. Failure to observe health issues and promptly treat and/or report them to the attending veterinarian will lead to unnecessary suffering and in extreme cases even possible animal death. Thorough daily observations of all animals should be made. In the face of ongoing contagious illness outbreaks even more stringent observations should be made. Animals with known problems should receive extra scrutiny. Report all health issues promptly to the veterinarian.

3.129 (b) REPEAT

FEEDING.

The food receptacle boxes for the enclosure housing two American black bears and the enclosure housing two Asian black bears contained a large amount of rotting food debris. An inspector noticed two rats eating the food debris in the Asian black bear enclosure. The grizzly bear feed area contained rotting food debris. Any food fed in these areas is going to be contaminated by the rotting material present. These feeders need to be cleaned and made sanitary to ensure that the food fed to the bears is wholesome and free from bacterial or pest infestation which could result in health issues for the bears.

Prepared By:

KURT HAMMEL, D V M

KURT HAMMEL, D V M

USDA, APHIS, Animal Care

Date:

Title:

VETERINARY MEDICAL OFFICER Inspector 1023

Nov-18-2015

Received By:

(b)(6), (b)(7)(c)

Date:

Title:

Nov-19-2015



Inspection Report

3.131 (a) REPEAT

SANITATION.

The Asian black bear enclosure and the American black bear enclosure contained excessive rotting food waste. The Asian black bear enclosure contained excessive fecal material. The grizzly bear enclosure contained excessive rotting food waste. These enclosures need to be cleaned on a more frequent basis. This rotting material and feces can lead to pest control issues. The rotting material present in these animals' enclosures and shelter boxes can contaminate these animals as they lay in their enclosures. The animals can ingest this material when they groom themselves. Not removing old food waste promptly can lead to contamination of new food. Ingesting this rotten material can lead to potential health problems. Clean these enclosures more frequently to prevent a buildup of food and fecal waste to minimize odors and prevent potential health problems.

3.131 (c) REPEAT

SANITATION.

The majority of the premises are filled with various debris, old equipment, boards, trash, buckets, tires and fence. Several other buildings on the property are also filled with old equipment and debris and trash. Tall weeds are located throughout the facility. These areas provide ample hiding areas for rodents and other pests and numerous rodent holes were located throughout the facility. Two live rats were also seen at the facility. All this material must be removed to help control pests.

The pool located in the grizzly bear enclosure is very dirty. It contains a large amount of green water and algae. This pool must be drained and cleaned. The weather this fall has been unusually warm and stagnant water in this pool can become a breeding ground for mosquitos which are vectors for several diseases which can make the animals ill.

3.131 (d) REPEAT

SANITATION.

Numerous rodent holes were located throughout the facility. Rodent holes were located both inside and outside the Syrian brown bear enclosure and the den for this enclosure. Rodent holes were located next to the North American black bear enclosure. Two live rats were seen in the enclosure by one of the inspectors. Rodent holes were located next to the tiger Pandora and the tiger Mohan's enclosures. Rodents can be carriers of disease which may be harmful to the animals housed in these areas. A more effective means of rodent control must be established for the facility.

3.132 REPEAT

EMPLOYEES.

A volunteer training was held since the time of the last inspection. Topics including animal husbandry and observation of animals were covered. The facility was noticeably cleaner today and is evident that progress is being made in this area. However, the cougar known as Mattie has several crusty appearing skin lesions. These lesions are located on the right hip and on the back of the animal just above the base of the tail. These lesions appear very similar to the lesions on tigers at the facility that are being treated for a diagnosed ringworm infection. No one at the facility had noticed these lesions. Additional

Prepared By:

KURT HAMMEL, D V M

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USDA, APHIS, Animal Care

Date:

Title:

VETERINARY MEDICAL OFFICER Inspector 1023

Nov-18-2015

Received By:

(b)(6), (b)(7)(C)

Date:

Title:

Nov-19-2015



Inspection Report

instruction should be given to the staff on the importance of thorough daily observation of the animals at the facility. Documentation of this instruction should be maintained for review by APHIS officials.

An exit interview was conducted at the conclusion of the inspection with the facility CEO, Board President and a volunteer. AC personnel present were Kurt Hammel, Carrie Bongard, Rick Kirsten and Laurie Gage. A formal exit interview was conducted with the facility CEO and Kurt Hammel on 11-19-15.

Prepared By:

KURT HAMMEL, D V M

KURT HAMMEL, D V M

USDA, APHIS, Animal Care

Title:

VETERINARY MEDICAL OFFICER Inspector 1023

Date:

Nov-18-2015

Received By:

(b)(6), (b)(7)(c)

Date:

Nov-19-2015

Title:



Inspection Report

Summer Wind Farm Sanctuary
6490 Mowerson Rd
Brown City, MI 48416

Customer ID: 6902

Certificate: 34-C-0227

Site: 001

SUMMER WIND FARM

Type: ROUTINE INSPECTION

Date: Dec-08-2015

This focused inspection was conducted to evaluate the condition of the big cats at the facility.

No non-compliant items identified during this inspection.

The cougar cited on the last inspection has been evaluated by the attending veterinarian.

Exit interview conducted with the facility CEO.

Prepared By:

KURT HAMMEL, D V M

KURT HAMMEL, D V M

USDA, APHIS, Animal Care

Date:

Title:

VETERINARY MEDICAL OFFICER/Inspector: 1023

Dec-08-2015

Received By:

(b)(6), (b)(7)(C)

Date:

Title:

Dec-08-2015



Inspection Report

Summer Wind Farm Sanctuary
6490 Mowerson Rd
Brown City, MI 48416

Customer ID: 6902

Certificate: 34-C-0227

Site: 001

SUMMER WIND FARMS

Type: ATTEMPTED INSPECTION

Date: Jan-19-2016

2.126 (b)

ACCESS AND INSPECTION OF RECORDS AND PROPERTY; SUBMISSION OF ITINERARIES.

Section 2.126(b) - Access and inspection of records and property: A responsible adult shall be made available to accompany APHIS officials during the inspection process.

A responsible adult was not available to accompany APHIS Officials during the inspection process at 11:00 AM on 01/19/2016.

For the past three weeks in a row including this week, the inspector has received a message by cell phone voicemail in which Mr. Vanneste has stated that he will not be available for inspection the following week. Mr. Vanneste has previously indicated to APHIS that he would be available on Tuesdays, Wednesdays and Thursdays to host inspections. Due to the concerning citations with regards to improper veterinary care and also lack of adequate water and bedding in times of very cold weather in the past it is essential that APHIS inspectors be able to check on the welfare of the animals housed at the facility.

Mr. Vanneste needs to be available to host an inspection during the times he has designated to APHIS.

Prepared By:

KURT HAMMEL, D V M

KURT HAMMEL, D V M

USDA, APHIS, Animal Care

Date:

Title:

VETERINARY MEDICAL OFFICER Inspector 1023

Jan-19-2016

Received By:

(b)(6), (b)(7)(c)

Date:

Title:

Jan-19-2016



Inspection Report

Summer Wind Farm Sanctuary
6490 Mowerson Rd
Brown City, MI 48416

Customer ID: 6902

Certificate 34-C-0227

Site: 001

SUMMER WIND FARM

Type: ROUTINE INSPECTION

Date: Feb-09-2016

Mr. Vanneste was ill with flu like symptoms at the time of the inspection and was not feeling well enough to host the inspection today.

This inspection focused on only paperwork and was done inside the residence.

No non-compliant items identified during this inspection.

Exit interview conducted with the facility CEO and APHIS representative Kurt Hammel

Prepared By:

KURT HAMMEL, D V M

KURT HAMMEL, D V M

USDA, APHIS, Animal Care

Title:

VETERINARY MEDICAL OFFICER Inspector 1023

Date:

Feb-09-2016

Received By:

(b)(6), (b)(7)(c)

Date:

Feb-09-2016



Inspection Report

Summer Wind Farm Sanctuary
6490 Mowerson Rd
Brown City, MI 48416

Customer ID: 6902

Certificate: 34-C-0227

Site: 001

SUMMER WIND FARMS

Type: ROUTINE INSPECTION

Date: Feb-23-2016

2.40 (b) (2) REPEAT

ATTENDING VETERINARIAN AND ADEQUATE VETERINARY CARE (DEALERS AND EXHIBITORS).

A 25 week old tiger at the facility named Daisy is being fed KMR, goats' milk and chicken. The chicken is being dusted with an unknown vitamin supplement mixed with calcium carbonate in an unknown ratio and placed on the chicken in an unknown amount. Daisy has a dull coat lacking the normal sheen that you would expect in a healthy, actively growing tiger. There could be several causes for this dull coat appearance including: indoor housing, internal parasite infestation and poor nutrition. This tiger has never had a fecal according to the CEO and the CEO has no idea if the nutritional supplementation that he is giving her is adequate. The facility must determine what supplementation is being given to the tiger and what amount. The attending veterinarian should be consulted to determine if this is adequate and fecal testing should be done if the attending veterinarian determines that this is indicated. Records of this consultation should be made and should be available for APHIS review. This should be completed by 3-3-16.

3.125 (c) REPEAT

FACILITIES, GENERAL

The meat cooler had an overwhelming odor of rotten and decaying meat. This stench was noticeable from the alleyway 20 to 30 feet away from the cooler. This odor makes it very hard to determine if the meat items stored in this cooler are fit for animal consumption. Clean the cooler, identify the source of the odor and eliminate it.

3.125 (d) REPEAT

FACILITIES, GENERAL

A wheel barrow full of fecal material was located in an alleyway next to the alpaca enclosures. Food and fecal waste needs to be removed promptly in order to minimize odors, vermin infestation and disease hazards. Remove this and all other waste materials in a prompt manner.

Prepared By:

KURT HAMMEL, D V M

KURT HAMMEL, D V M

USDA, APHIS, Animal Care

Date:

Title:

VETERINARY MEDICAL OFFICER Inspector 1023

Feb-24-2016

Received By:

(b)(6), (b)(7)(c)

Date:

Title:

Feb-25-2016



Inspection Report

3.128

SPACE REQUIREMENTS.

A 25 week old tiger is currently being housed in the basement of the residence located on the property. The enclosure this tiger is housed in is too small for a six month old juvenile tiger. Tigers at this age are active. They require space for exercise and play to promote proper development of bones, joints and muscles. This tiger needs to be in a larger enclosure.

Correct by: 3-17-16

3.131 (c)

REPEAT

SANITATION.

The majority of the premises are filled with various debris, old equipment, boards, trash, buckets, tires and fence. Several other buildings on the property are also filled with old equipment and debris and trash. Tall weeds are located throughout the facility. These areas provide ample hiding areas for rodents and other pests and numerous rodent holes were located throughout the facility. A mouse nest with live mice was noted on a shelf in the warm room. All this material must be removed to help control pests.

The sink in the butcher area is dirty and contained blood and tissue covered utensils and cleaning supplies. The band saw in the butcher area is covered with blood and needs to be cleaned. The floor and wall next to the meat cooler is covered in blood and animal tissue. These things need to be cleaned in order to ensure that processed meat does not become contaminated. Contaminated meat fed to the animals can make them ill and lead to unnecessary suffering.

3.131 (d)

REPEAT

SANITATION.

Numerous rodent holes were located throughout the facility. Rodent holes were located outside the Syrian brown bear enclosure. Rodent holes were located next to the Asian black bear's food box. Rodent holes were located in the alleyway for the leopard and cat enclosures and in the service area for the tigers Lenny and Squigly. Rodent holes were located next to the tiger Mohan's enclosure. A mouse nest containing live fully haired baby mice was located on a shelf in the warm room. Rodents can be carriers of disease which may be harmful to the animals housed in these areas. A more effective means of rodent control must be established for the facility.

3.132

REPEAT

EMPLOYEES.

It is evident that due to the amount of the animal husbandry issues at the facility that there is a lack of adequately trained employees. The facility relies on volunteer workers. A lack of properly trained employees can result in facility and animal conditions that result in unnecessary animal suffering. The unnoticed mouse nest in plain site on a shelf in the warm room or the fact that staff continues to fail to clean equipment after butchering or to dispose properly of animal waste removed from enclosures are examples of conditions that could be corrected with an adequate number of properly trained workers. Animal numbers must be reduced or more properly trained workers must be added.

Prepared By:

KURT HAMMEL, D V M

KURT HAMMEL, D V M

USDA, APHIS, Animal Care

Date:

Title:

VETERINARY MEDICAL OFFICER Inspector 1023

Feb-24-2016

Received By:

(b)(6), (b)(7)(c)

Date:

Title:

Feb-25-2016



Inspection Report

An exit interview was conducted at the conclusion of the inspection with the facility CEO and APHIS personnel Kurt Hammel and Carrie Bongard. A formal exit interview was conducted with the facility CEO and Kurt Hammel on 2-25-16.

Prepared By:

KURT HAMMEL, D V M

Title:

KURT HAMMEL, D V M USDA, APHIS, Animal Care
VETERINARY MEDICAL OFFICER Inspector 1023

Date:

Feb-24-2016

Received By:

(b)(6), (b)(7)(c)

Date:

Feb-25-2016

Title:



Inspection Report

Summer Wind Farm Sanctuary
6490 Mowerson Rd
Brown City, MI 48416

Customer ID: 6902
Certificate: 34-C-0227
Site: 001
SUMMER WIND FARMS

Type: ROUTINE INSPECTION
Date: May-17-2016

2.40 (b) (2) REPEAT

ATTENDING VETERINARIAN AND ADEQUATE VETERINARY CARE (DEALERS AND EXHIBITORS).

The three ring tailed lemurs housed in a single enclosure at the facility appeared thin and had very poor sparse hair coats. There was no food waste of any kind observed in their enclosure. When each was offered a monkey biscuit by the facility CEO they all ate eagerly and consumed the biscuits quickly and in their entirety. If left untreated these animals will suffer needlessly. The attending veterinarian should be consulted regarding the condition of these lemurs. Documentation of the veterinarian's treatment recommendations and a treatment record must be maintained and available for review by APHIS officials. This should be done by the end of the day 5-18-16.

Two alpacas at the facility have extremely long rear toes. These toes must be kept at a proper length in order to prevent joint issues. This can lead to unnecessary pain and suffering by these animals. These alpaca toes must be trimmed.

2.40 (b) (3) REPEAT

ATTENDING VETERINARIAN AND ADEQUATE VETERINARY CARE (DEALERS AND EXHIBITORS).

The three ring tailed lemurs housed in a single enclosure at the facility appeared thin and had very poor sparse hair coats. There was no food waste of any kind observed in their enclosure. When each was offered a monkey biscuit by the facility CEO they all ate eagerly and consumed the biscuits quickly and in their entirety. The attending veterinarian had not been consulted regarding the condition of these animals. Failure to observe health issues and promptly treat and/or report them to the attending veterinarian will lead to unnecessary suffering and in extreme cases even possible animal death. Thorough daily observations of all animals should be made. Animals with known problems should receive extra scrutiny. Report all health issues promptly to the veterinarian.

3.125 (c) REPEAT

FACILITIES, GENERAL.

The overwhelming odor of rotten and decaying meat still persists in the meat cooler. This odor makes it very hard to determine if the meat items stored in this cooler are fit for animal consumption. Clean the cooler, identify the source of the odor and eliminate it.

Prepared By:

KURT HAMMEL, D V M

KURT HAMMEL, D V M USDA, APHIS, Animal Care

Title: VETERINARY MEDICAL OFFICER Inspector 1023

Date:
May-18-2016

Received By:

(b)(6), (b)(7)(C)

Title:

Date:
May-19-2016



Inspection Report

3.127 (c) REPEAT

FACILITIES, OUTDOOR.

The entire front of the tiger Lilly's enclosure is muddy. The substrate in this area is not draining properly and so after Lilly plays in her water this area remains muddy and wet. This area needs to be redesigned to drain in a timely manner to prevent health issues which can be caused by fecal contamination of this mud and water leading to coat contamination and ingestion of this material by Lilly.

3.130 REPEAT

WATERING.

The water receptacle for the enclosure containing the grizzly bear had a large amount of algae growing in it. This indicates that it is not being cleaned and sanitized on a regular basis. Water receptacles should be kept clean and sanitary to promote adequate water consumption which is essential for animal health. Clean and sanitize this water receptacle more frequently.

3.131 (a) REPEAT

SANITATION.

The Asian black bear enclosure and the American black bear enclosure contained excessive fecal material. Enclosures for the tiger Hank and the tigers Lenny and Squiggy contained excessive amounts of fecal material. The new tiger Daisy is now housed indoors in a dog kennel area. Several dogs are also housed in runs in this area. The level of ammonia in this area is very high and caused the inspectors eyes to water. This level of ammonia is not comfortable for the tiger housed in the area and could lead to respiratory problems. These enclosures need to be cleaned on a more frequent basis. This excessive feces can lead to pest control issues. The animals can contaminate their coats when they lay in this material and ingest this material when they groom themselves. Clean these enclosures more frequently to prevent a buildup of fecal waste to minimize odors and prevent potential health problems.

3.132 REPEAT

EMPLOYEES.

Lack of properly trained workers still remains an issue for the facility. The fact that the condition of the lemurs had not been reported to the attending veterinarian as well as the persistent husbandry issues are evidence of this. The facility relies on volunteer workers. A lack of properly trained employees can result in facility and animal conditions that result in unnecessary animal suffering. Most if not all of the facility issues could be corrected with an adequate number of properly trained workers. Animal numbers must be reduced or more properly trained workers must be added.

3.133 SEPARATION.

Daisy the tiger is now housed in an indoor area that also contains multiple dogs housed in runs. These

Prepared By:

KURT HAMMEL, D V M

KURT HAMMEL, D V M

USDA, APHIS, Animal Care

Date:

Title:

VETERINARY MEDICAL OFFICER/Inspector 1023

May-18-2015

Received By:

(b)(6), (b)(7)(C)

Date:

Title:

May-19-2015



Inspection Report

dogs could be heard barking when the inspectors were not near the area. When the inspectors entered the area the noise from the dogs barking was relentless. Animals should not be housed near animals that cause them discomfort. The close proximity of the dogs to Daisy is causing her discomfort. The dogs or Daisy need to be moved out of the area.

Correct by: 5-25-18

An exit interview was conducted at the conclusion of the inspection with the facility CEO and APHIS personnel Kurt Hammel and Carrie Bongard. Expectations regarding the lemurs were conveyed to the facility CEO at that time. It was explained and the CEO agreed that the lemurs would be seen by the attending veterinarian by COB on 5-18-19. A formal exit interview was conducted with the facility CEO and APHIS personnel Kurt Hammel and Carrie Bongard on 5-19-19.

Prepared By:

KURT HAMMEL, D V M

KURT HAMMEL, D V M USDA, APHIS, Animal Care

Title:

VETERINARY MEDICAL OFFICER Inspector 1023

Date:

May-18-2018

Received By:

(b)(6), (b)(7)(c)

Date:

May-19-2018

Title:



Inspection Report

Summer Wind Farm Sanctuary
6490 Mowerson Rd
Brown City, MI 48416

Customer ID: **6902**

Certificate: **34-C-0227**

Site: 001

SUMMER WIND FARMS

Type: ROUTINE INSPECTION

Date: May-31-2016

2.40 (b) (2) REPEAT

ATTENDING VETERINARIAN AND ADEQUATE VETERINARY CARE (DEALERS AND EXHIBITORS).

The tiger known as JJ was euthanized since the time of the last inspection. JJ was euthanized by .410 gunshot (slug) to the head by the licensee. There was no sedation, tranquilization or anesthesia used prior to the gunshot. The program of veterinary care states that the licensee can perform euthanasia on instruction by the veterinarian but it also states that euthanasia must be done in compliance with AVMA guidelines. The AVMA guidelines state that gunshot can be done if no other method of euthanasia is available. As this was not an emergency situation, other methods of euthanasia were available. The licensee had ample time to sedate, tranquilize or anesthetize the animal prior to shooting it. The licensee stated that the veterinarian told him it was fine to just shoot the animal. The only written directions available for APHIS review was the PVC and a copy of the AVMA guidelines. Except for in cases of extreme emergency, the animal must be heavily sedated, tranquilized or under anesthesia prior to gunshot euthanasia.

This was a focused inspection to check on the condition of the lemurs and the tiger known as Daisy cited on the inspection of 5-17-16. When the inspectors inquired about the condition of the tiger known as JJ they were told of the euthanasia.

Exit interview conducted with the CEO and APHIS employees Kurt Hammel, Carrie Bongard and Rick Kirsten. Delivery and formal exit interview conducted with the CEO and APHIS employee Kurt Hammel.

Prepared By:

KURT HAMMEL, D V M

KURT HAMMEL, D V M

USDA, APHIS, Animal Care

Date:

Title:

VETERINARY MEDICAL OFFICER Inspector 1023

Jun-03-2016

Received By:

(b)(6), (b)(7)(c)

Date:

Title:

Jun-03-2016



Cust No	Cert No	Site	Site Name	Inspection
6902	34-C-0227	001	SUMMER WIND FARM SANCTUARY	31-MAY-16

Count	Species
000001	Tiger
000003	Ring-tailed lemur
000004	Total



Inspection Report

Summer Wind Farm Sanctuary
6490 Mowerson Rd
Brown City, MI 48416

Customer ID: **6902**
Certificate: **34-C-0227**
Site: 001
SUMMER WIND FARMS

Type: ROUTINE INSPECTION
Date: 26-JUL-2016

2.40(x)(2) DIRECT REPEAT

ATTENDING VETERINARIAN AND ADEQUATE VETERINARY CARE (DEALERS AND EXHIBITORS).

A dark brown alpaca was not sheared this year. Its coat is very long and thick. The day was hot with a temperature of 81 degrees and a humidity index of 49% at the time of inspection which was about 12:30 PM. The sun was directly overhead on a cloudless day. This alpaca had no shade for its enclosure. The small shelter in the pen did not provide enough shade for the alpaca to get out of the sun's direct rays. This alpaca needs to be sheared. This lack of basic alpaca husbandry is causing unnecessary discomfort to this animal and could lead to pain and even death as temperatures are expected to reach the upper 80's for this area of the state. This alpaca needs to be sheared. Get this alpaca sheared.

3.27 DIRECT

FACILITIES, OUTDOOR.

A dark brown alpaca had no shade for its enclosure. The small shelter in the pen did not provide enough shade for the alpaca to get out of the sun's direct rays. Its coat is very long and thick as it has not been sheared. The day was hot with a temperature of 81 degrees and a humidity index of 49% at the time of inspection which was about 12:30 PM. The sun was directly overhead on a cloudless day. This lack of basic animal husbandry is causing unnecessary discomfort to this animal and could lead to pain and even death as temperatures are expected to reach the upper 80's for this area of the state. This alpaca needs shade. Get this alpaca shade from the direct sunlight.

Correct by: COB 7-26-16.

3.132 CRITICAL REPEAT

EMPLOYEES.

Lack of properly trained workers still remains an issue for the facility. The fact that basic husbandry for the alpaca such as shearing was not done and that no one at the facility noted that the alpaca had no shade illustrates this

Prepared By: **KURT HAMMEL**
KURT HAMMEL USDA, APHIS, Animal Care
Title: VETERINARY MEDICAL OFFICER 1023

Date:
27-JUL-2016

Received By: **(b)(6), (b)(7)(c)**
Title:

Date:
28-JUL-2016



Inspection Report

point. This facility has a long history of poor animal husbandry and failure to recognize animal health concerns in a timely manner. The facility relies on volunteer workers. A lack of properly trained employees can result in facility and animal conditions that result in unnecessary animal suffering. Most if not all of the facility issues could be corrected with an adequate number of properly trained workers. Animal numbers must be reduced or more properly trained workers must be added.

An exit interview was conducted at the conclusion of the inspection with the facility CEO and APHIS personnel Kurt Hammel and Carrie Bongard. The inspection report could not be completed and delivered at that time as the facility CEO had to leave the facility immediately for personal business. APHIS expectations regarding the alpaca were clearly conveyed to the facility CEO at that time, including the need for immediate shade. A formal exit interview was conducted with the facility CEO and APHIS representative Kurt Hammel on 7-28-16.

Additional Inspectors

Carrie Bongard, Animal Care Inspector

Prepared By:

KURT HAMMEL USDA, APHIS, Animal Care

Title: VETERINARY MEDICAL OFFICER 1023

Date:
27-JUL-2016

Received By:

CHUCK VANNESTE

Title: CEO

Date:
28-JUL-2016



Inspection Report

Summer Wind Farm Sanctuary
6490 Mowerson Rd
Brown City, MI 48416

Customer ID: **6902**

Certificate: **34-C-0227**

Site: 001

SUMMER WIND FARMS

Type: ROUTINE INSPECTION

Date: Jul-28-2016

This inspection was focused on only the issue of shade being provided to the alpaca. The brown alpaca had no shade in its enclosure on the inspection of 7-28-16. The alpaca now has shade.

No non-compliant items identified during this inspection.

Exit interview conducted with the facility CEO and APHIS representative Kurt Hammel.

Prepared By:

KURT HAMMEL, D V M

KURT HAMMEL, D V M

USDA, APHIS, Animal Care

Date:

Title:

VETERINARY MEDICAL OFFICER Inspector 1023

Jul-28-2016

Received By:

(b)(6), (b)(7)(c)

Date:

Title:

Jul-28-2016



Inspection Report

Summer Wind Farm Sanctuary
6490 Mowerson Rd
Brown City, MI 48416

Customer ID: **6902**

Certificate: **34-C-0227**

Site: 001

SUMMER WIND FARMS

Type: ATTEMPTED INSPECTION

Date: 06-SEP-2016

2.126(b)

ACCESS AND INSPECTION OF RECORDS AND PROPERTY; SUBMISSION OF ITINERARIES.

A responsible adult was not available to accompany APHIS Officials during the inspection process at 11:00 AM on 06-Sep-16.

The CEO of the facility left a message on my cell phone at 10:15 PM on 9-5-16 to let me know he would not be at the facility the next day. In one of the two previous weeks he had left a message to let me know that he was unavailable for inspection the entire week. The CEO of the facility has stated that he is the only person that can host USDA inspections. He has designated that he is available Tuesday, Wednesday and Thursday morning of each week for these inspections. This facility has a poor history of compliance and requires an additional inspector to conduct inspections. These inspections are set up well in advance with the additional inspector. This poor compliance history makes it imperative that we conduct timely unannounced inspections. When on site we left a message on the facility answering machine and waited outside the gate for 30 minutes.

Additional Inspectors

Carrie Bongard, Animal Care Inspector

Prepared By:

KURT HAMMEL

KURT HAMMEL USDA, APHIS, Animal Care

Title: VETERINARY MEDICAL OFFICER 1023

Date:

07-SEP-2016

Received By:

(b)(6), (b)(7)(c)

Title:

Date:

07-SEP-2016



Cust No	Cert No	Site	Site Name	Inspection
6902	34-C-0227	001	SUMMER WIND FARM SANCTUARY	06-SEP-16

Count	Species
000000	None
000000	Total



Inspection Report

Summer Wind Farm Sanctuary
6490 Mowerson Rd
Brown City, MI 48416

Customer ID: **6902**
Certificate: **34-C-0227**
Site: 001
SUMMER WIND FARMS

Type: ROUTINE INSPECTION
Date: 28-SEP-2016

2.40(b)(2) DIRECT REPEAT

ATTENDING VETERINARIAN AND ADEQUATE VETERINARY CARE (DEALERS AND EXHIBITORS).

Two brown goats were noted to be underweight. One goat was very thin with prominent hips, ribs and spinal structure. This goat was noted to be thin by the CEO of the facility and given a dewormer a couple of weeks ago according to the CEO. The inspectors were provided with an unopened bag of this pelleted dewormer. There were no records of administration of this dewormer and when asked about the amount used the CEO said he guessed. This goat is dangerously thin and with winter coming is at real risk that its condition will lead to suffering and possible death. Consultation with the facility attending veterinarian is needed regarding the condition of this goat. Testing results, diagnosis and treatment recommendations and records must be available to APHIS inspectors at the next inspection. Consult the veterinarian and have records available by 10:30 AM on September 30, 2016.

The lemur known as Peanut has died since the time of the last inspection. Records shown to the inspectors indicate that Peanut had an initial veterinary exam showing some partial paralysis on 7/26/2016 and subsequent to that there was a necropsy report that was dated 9/26/16. There are no additional records of exams, treatments and whether or not the animal was euthanized or died of its own accord. This lack of records gives APHIS inspectors no indication if the animal received appropriate care and treatment for its condition. Veterinary records are critical part of veterinary medical care. Veterinary records must be created and maintained for all animals requiring veterinary care. Create and maintain and have available to APHIS inspectors veterinary medical records for animals requiring treatment.

2.75(b)(1)

RECORDS: DEALERS AND EXHIBITORS.

The facility has not yet updated its record of animals on hand to reflect its current inventory. The facility has also disposed of two goats since the time of the last inspection and there is no address information recorded for the person acquiring these goats. This information must be maintained accurately and made available to APHIS inspectors when requested. This information is needed to properly evaluate the facilities compliance with the AWA standards.

Prepared By:

KURT HAMMEL, D V M

KURT HAMMEL USDA, APHIS, Animal Care

Title: VETERINARY MEDICAL OFFICER, 1023

Received By:

(b)(6), (b)(7)(c)

Title: CEO

Date:
29-SEP-2016

Date:
29-SEP-2016



Inspection Report

Correct by: Update animal inventory by 10-7-16. Record all animal acquisition and disposition information from this time forward.

2.131(a)

HANDLING OF ANIMALS.

The alpaca noted as needing to be sheared on the inspection of 7-27-16 was never sheared. None of the three alpacas at the facility were sheared this year. It is now too late in the season to shear them as cold weather is coming soon. Shearing is important as an animal welfare issue as alpacas do not shed their fleece. They have an exceptionally thermal fleece, and will overheat in summer if their fleece is not regularly removed. Shear your alpacas each year in the spring. This schedule allows them to have short wool in the summer heat and long wool through the winter. The CEO of the facility claims that alpacas need not be sheared. The inspectors confirmed that this is not the case by consulting multiple online resources available to any member of the public. The CEO has no knowledge of the basic husbandry needs of these alpacas. Licensees must demonstrate adequate knowledge of the species they maintain. The licensee must learn about these alpacas so that they can be kept according to basic husbandry standards. Keep records of books or online sources consulted for APHIS inspector review.

Correct by: 10-29-16.

3.6(b)(3) DIRECT

PRIMARY ENCLOSURES.

While inspecting the facility, the inspectors noticed a cage located just outside the perimeter fence but on the property of the sanctuary. Mewing could be heard coming from the enclosure. When asked what was in the enclosure the CEO responded cats. He stated that these cats were not inspected by us as they were outside the perimeter fence. We informed him that all covered species on the property were subject to our inspection. As we approached the cage, four cats within the enclosure began frantically mewing and climbing up the wire sides of the enclosure. This enclosure contained no food, water or litter box. The cats in this enclosure must be provided with access to clean litter for body waste material. Cats are a species which desire to excrete body waste into a substrate which can then be used to cover the waste material. They will hesitate to urinate and defecate in the absence of clean litter material. This can lead to unnecessary discomfort to these cats. Provide a litter box with clean litter for these cats.

Correct by: COB 9-28-16.

Prepared By:

KURT HAMMEL, D V M

KURT HAMMEL USDA, APHIS, Animal Care

Title: VETERINARY MEDICAL OFFICER, 1023

Received By:

(b)(6), (b)(7)(c)

Title: CEO

Date:

29-SEP-2016

Date:

29-SEP-2016



Inspection Report

3.9 DIRECT

FEEDING.

While inspecting the facility, the inspectors noticed a cage located just outside the perimeter fence but on the property of the sanctuary. Mewing could be heard coming from the enclosure. When asked what was in the enclosure the CEO responded cats. He stated that these cats were not inspected by us as they were outside the perimeter fence. We informed him that all covered species on the property were subject to our inspection. As we approached the cage, four cats within the enclosure began frantically mewing and climbing up the wire sides of the enclosure. This enclosure contained no food, water or litter box. We requested that the cats be given water. When water was placed in the receptacle, all four cats jumped off the fence and rushed to the water and began drinking. All cats drank continuously for three minutes while the inspector watched. The inspector then requested that the cats be given food. Despite the fact that all the cats had just been drinking water for three straight minutes, two of the four immediately began eating. These were all juvenile cats of approximately 16 weeks of age. They should be allowed access to food ad lib while in this growing stage. Have food continuously available to these cats as this is appropriate for their age.

Correct by: Correct immediately.

3.10 DIRECT

WATERING.

While inspecting the facility, the inspectors noticed a cage located just outside the perimeter fence but on the property of the sanctuary. Mewing could be heard coming from the enclosure. When asked what was in the enclosure the CEO responded cats. He stated that these cats were not inspected by us as they were outside the perimeter fence. We informed him that all covered species on the property were subject to our inspection. As we approached the cage, four cats within the enclosure began frantically mewing and climbing up the wire sides of the enclosure. This enclosure contained no food, water or litter box. We requested that the cats be given water. When water was placed in the receptacle, all four cats jumped off the fence and rushed to the water and began drinking. All cats drank continuously for three minutes while the inspector watched. This is way too long. These cats had obviously not been given water for quite some time. These cats were suffering due to a lack of water. These cats must be provided water as often is as needed but at least twice daily for one hour each time. Provide appropriate water for these cats.

Correct by: Correct immediately.

3.125(a) REPEAT

Prepared By:

KURT HAMMEL, D V M

KURT HAMMEL USDA, APHIS, Animal Care

Title: VETERINARY MEDICAL OFFICER, 1023

Received By:

(b)(6), (b)(7)(c)

Title: CEO

Date:
29-SEP-2016

Date:
29-SEP-2016



Inspection Report

FACILITIES, GENERAL.

The llama enclosure fence has a post that has broken off at its base. A metal fence post was driven in to support it but has become loose. The fence is sagging in this area and sways when pushed. This enclosure is no longer adequate to contain this llama and protect it from possible injury. Repair this enclosure fence.

The enclosure housing one brown alpaca has an area where the wire fence attaches to the shelter building. This fence has become loose and multiple wire points are protruding. Any of these wire points could cause a serious eye or facial injury to the alpaca housed in this enclosure. Repair this fence.

The enclosure housing two Syrian Brown bears has a corner of the enclosure where the bears have been digging. The underground fence wire has been exposed and with continued digging the animals may weaken the enclosure and escape. These animals are dangerous and an escape from the enclosure could lead to injury of volunteer employees or death of one of the bears. This enclosure needs to be repaired.

3.125(c) REPEAT

FACILITIES, GENERAL.

The produce cooler contains spoiled produce. Deteriorating and liquefying bags and heads of lettuce were present in the cooler. Spoiled produce must be removed promptly to prevent contamination of food intended to be fed to the animals. Sort and remove spoiled produce promptly. This cooler needs to be cleaned and have spoiled and deteriorating items removed in order to prevent contamination of food items that will be fed to the animals.

3.131(a) REPEAT

SANITATION.

There was excessive feces and food waste in the enclosure for the Syrian Brown bears. This enclosure needs to be cleaned on a more frequent basis. This rotting material and feces can lead to pest control issues. The rotting material present in these animals' enclosure can contaminate these animals as they lay in their enclosure. The animals can ingest this material when they groom themselves. Not removing old food waste promptly can lead to contamination of new food. Ingesting this rotten material can lead to potential health problems. Clean this enclosure more frequently to prevent a buildup of food and fecal waste to minimize odors and prevent potential health problems.

3.132 DIRECT REPEAT

Prepared By:

KURT HAMMEL, D V M

KURT HAMMEL USDA, APHIS, Animal Care

Title: VETERINARY MEDICAL OFFICER, 1023

Received By:

(b)(6), (b)(7)(c)

Title: CEO

Date:
29-SEP-2016

Date:
29-SEP-2016



Inspection Report

EMPLOYEES.

It is evident that due to the nature and severity of the animal husbandry issues at the facility that there is a lack of adequately trained employees. The facility relies on volunteer workers. A lack of properly trained employees can result in facility and animal conditions that result in unnecessary animal suffering. Of special concern on this inspection was the conditions under which four juvenile cats were held on facility property. To keep these cats in an enclosure with no food, water or litter box demonstrates a very indifferent attitude towards animal welfare at the facility. These cats were suffering. This is animal cruelty. It is this culture of indifference to basic needs of animals that puts all animals at the facility in danger. Animal numbers must be reduced or more properly trained workers need to be added. A facility schedule needs to be developed that allows for adequate employee coverage in order to address all animal husbandry needs. For the most part, the facility CEO is the only one authorized to work with the dangerous animals at the facility as the other authorized party has very limited availability. All animal work must be done with the dangerous animals under his direct supervision. This limits the amount of time that is available to service the dangerous animal enclosures as the facility CEO is often offsite. This leads to poor sanitation in the dangerous animal enclosures. The facility CEO needs to find a way to be onsite more or hire trained staff to help run the facility.

This inspection was conducted with the CEO and a new member of the sanctuary board. An exit interview was conducted with APHIS representatives Kurt Hammel and Carrie Bongard, the CEO and board member at the conclusion of the inspection. The non-compliant items were discussed and clear expectations for the direct non-compliant items were communicated to the CEO and board member.

A formal exit interview was conducted with the CEO and APHIS representative Kurt Hammel on 9-30-16.

Also discussed at the exit interview was the delay at the facility between the arrival of the inspectors and the beginning of the facility inspection. APHIS inspectors arrived at the facility at 11:15 AM. The CEO greeted them and said he had something to do for a few minutes. About 10 to 15 minutes later he came back and said that he had to shut off water somewhere. The CEO then stated that he had a new board member that he wanted to have present for the inspection and that he would now call him. The CEO wished to wait for an inspection of paperwork and the facility until this board member was present. APHIS inspectors agreed to wait. The board member arrived at about 12:30 PM. Paperwork was reviewed and the facility inspection began at about 1:00 PM. This was approximately 1 hour and 45 minutes after APHIS had arrived at the facility. We stated that our expectation is that the facility inspection will begin within 15 minutes of our arrival at the facility from this time forward.

Prepared By:

KURT HAMMEL, D V M

KURT HAMMEL USDA, APHIS, Animal Care

Title: VETERINARY MEDICAL OFFICER, 1023

Received By:

(b)(6), (b)(7)(c)

Title: CEO

Date:
29-SEP-2016

Date:
29-SEP-2016



Inspection Report

Additional Inspectors

Carrie Bongard, Animal Care Inspector

Prepared By:

KURT HAMMEL, D V M

KURT HAMMEL USDA, APHIS, Animal Care

Title: VETERINARY MEDICAL OFFICER, 1023

Date:
29-SEP-2016

Received By:

(b)(6), (b)(7)(c)

Title: CEO

Date:
29-SEP-2016



Cust No	Cert No	Site	Site Name	Inspection
6902	34-C-0227	001	SUMMER WIND FARM SANCTUARY	28-SEP-16

Count	Species
000001	Crab-eating/long-tailed macaque/cynomolgus monkey
000001	Japanese macaque
000001	Grizzly Bear
000001	White-nosed coati
000001	Sheep or mouflon
000001	Llama
000004	Cat Adult
000002	Syrian Brown Bear
000001	Puma/mountain lion/cougar
000002	North American black bear
000001	Coyote
000007	Tiger
000003	Goat
000001	Vietnamese warty pig
000002	Asiatic black bear
000003	Red fox
000003	Alpaca
000035	Total



Inspection Report

Summer Wind Farm Sanctuary
6490 Mowerson Rd
Brown City, MI 48416

Customer ID: **6902**

Certificate: **34-C-0227**

Site: 001

SUMMER WIND FARMS

Type: FOCUSED INSPECTION

Date: 30-SEP-2016

This was a focused inspection which focused on the five Direct non-compliant items on the inspection of 9-28-16. The goat has received veterinary treatment. The cats were taken to an animal shelter.

No non-compliant items identified during this inspection.

This inspection and exit interview were conducted with the facility CEO and a board member.

Prepared By:

KURT HAMMEL, D V M

KURT HAMMEL USDA, APHIS, Animal Care

Title: VETERINARY MEDICAL OFFICER, 1023

Date:
30-SEP-2016

Received By:

(b)(6), (b)(7)(c)

Title: CEO

Date:
30-SEP-2016



Cust No	Cert No	Site	Site Name	Inspection
6902	34-C-0227	001	SUMMER WIND FARM SANCTUARY	30-SEP-16

Count	Species
000001	Goat
000001	Total



Inspection Report

Summer Wind Farm Sanctuary
6490 Mowerson Rd
Brown City, MI 48416

Customer ID: **6902**
Certificate: **34-C-0227**
Site: 001
SUMMER WIND FARMS

Type: ROUTINE INSPECTION
Date: 09-NOV-2016

2.40(b)(2) DIRECT REPEAT

ATTENDING VETERINARIAN AND ADEQUATE VETERINARY CARE (DEALERS AND EXHIBITORS).

At the time of the last full facility inspection on 9-28-16 the inspectors observed that a 14 month old tiger known as Daisy was experiencing balance issues and was slightly unsteady when she walked. The inspectors were shown records that indicated that she was diagnosed with otitis externa due to bacteria and otitis media on 9-26-16. These records also indicate that she was first treated for this condition on 8-31-16. Daisy had received several injections of polyflex and dexamethazone prior to our inspection that day. We requested that she receive further veterinary evaluation as her condition had not resolved. On a focused inspection conducted 9-30-16, the inspector was informed by the facility CEO that the plan was to give oral antibiotics to Daisy.

Daisy was observed to be extremely ataxic today and stumbled and almost fell down several times while the inspectors were observing her. Daisy also appeared thinner than at the time of the last full inspection and her hair coat was dull in appearance. Treatment record showed that Daisy has been administered oral Cephalexin 500 mg twice per day on three separate occasions: 9-30-16 to 10-7-16, 10-23-16 to 10-29-16 and 11-1-16 to the present day. She was also administered diphenhydramine from 10-13-16 to 10-20-16. According to the box, this is a motion sickness medicine. Daisy's condition is worse since the time of the last inspection. She is suffering in her current condition and is in need of further veterinary evaluation. It is ultimately the responsibility of the licensee to ensure that their animals receive adequate veterinary care. Additional veterinary consultation must be sought for Daisy's worsening condition. A continued deterioration of Daisy's condition will lead to additional animal suffering and possibly death. Keep records of veterinary consultation, diagnosis and treatment information for review by APHIS inspectors. Veterinary consultation should be sought as soon as possible but no later than 11-16-16.

The inspectors observed a small brown cow which was very thin with prominent hip and rib bones. There was a small amount of hay trampled into the mud and the front of the animals enclosure. The CEO of the facility informed the inspectors that this cow had been obtained about one month before and was to be used as food for the animals. This cow is in need of veterinary care. It is too thin and is in need of evaluation for its condition. Keep records of this evaluation and treatment for review by APHIS inspectors. Even if intended for animal food, animals at the

Prepared By:

KURT HAMMEL, D V M

KURT HAMMEL USDA, APHIS, Animal Care

Title: VETERINARY MEDICAL OFFICER, 1023

Received By:

(b)(6), (b)(7)(c)

Title: CEO

Date:
10-NOV-2016

Date:
16-NOV-2016



Inspection Report

facility require proper food, water, shelter and veterinary care while at the facility. Process food animals immediately upon arrival at the facility or provide for their basic husbandry needs, including veterinary care if warranted.

A coatimundi at the facility has no hair above its haunches on both sides of its body. This animal is in need of veterinary evaluation for its condition. This animal must be seen by the attending veterinarian by close of business on 11-11-16. Keep records of this animal's evaluation and treatment for review by APHIS inspectors.

2.40(b)(3) REPEAT

ATTENDING VETERINARIAN AND ADEQUATE VETERINARY CARE (DEALERS AND EXHIBITORS).

A coatimundi at the facility has no hair above its haunches on both sides of its body. No one at the facility had noticed this hair loss. The attending veterinarian had not been consulted regarding the condition of this animal. Failure to observe health issues and promptly treat and/or report them to the attending veterinarian will lead to unnecessary suffering and in extreme cases even possible animal death. Thorough daily observations of all animals should be made. Animals with known problems should receive extra scrutiny. Report all health issues promptly to the veterinarian.

2.131(a) REPEAT

HANDLING OF ANIMALS.

A coatimundi at the facility was still housed in an outdoor enclosure. The facility CEO told inspectors that his plan was to move the coatimundi inside in about a week and that it was a mountain coatimundi and used to the cold temperatures. Two online sources consulted and reviewed at the time of the informal exit interview stated that coatimundis should not be exposed to temperatures less than 40 degrees. The CEO has no knowledge of the basic husbandry needs of this coatimundi. Licensees must demonstrate adequate knowledge of the species they maintain. The licensee must learn about this coatimundi so that it can be kept according to its basic husbandry standards. Keep records of books or online sources consulted for APHIS inspector review.

3.125(a) REPEAT

FACILITIES, GENERAL.

The fence for the enclosure housing one alpaca has become pushed up from the ground. The enclosure fence for the enclosure housing two alpacas has a broken post. The fence has also become pushed up and from the hair present on the fence and the pattern of grazed grass outside the enclosure fence it is evident that these alpacas are reaching under the fence to eat the grass. It would be very easy for one of these animals to become entangled in the fence and injured while attempting to reach under the fence to eat or escape the enclosure. As there is no

Prepared By:

KURT HAMMEL, D V M

KURT HAMMEL USDA, APHIS, Animal Care

Title: VETERINARY MEDICAL OFFICER, 1023

Received By:

(b)(6), (b)(7)(c)

Title: CEO

Date:

10-NOV-2016

Date:

16-NOV-2016



Inspection Report

grass inside the enclosure the animals may be highly motivated to exit the enclosure to obtain grass. Repair these enclosures to properly contain the animals and prevent possible injury.

3.125(c) REPEAT

FACILITIES, GENERAL.

The meat cooler had an overwhelming odor of rotten and decaying meat. This odor makes it very hard to determine if the meat items stored in this cooler are fit for animal consumption. Clean the cooler, identify the source of the odor and eliminate it.

3.127(b) DIRECT

FACILITIES, OUTDOOR.

A coatimundi at the facility was still housed in an outdoor enclosure. The facility CEO told inspectors that his plan was to move the coatimundi inside in about a week and that it was a mountain coatimundi and used to the cold temperatures. Two online sources consulted and reviewed at the time of the informal exit interview stated that coatimundis should not be exposed to temperatures less than 40 degrees. The expected low for the night is 36 degrees. In addition to this, several days in October already had recorded low temperatures ranging from 31 to 35 degrees. The expected low temperature for 11-11-16 is 26 degrees. To expose the coatimundi to these cold temperatures has caused it suffering. This coatimundi needs to be moved indoors. Move this coatimundi indoors today.

A shelter for the enclosure housing one alpaca and the shelter for the enclosure housing two goats and one sheep have no bedding. The expected low temperature for the night is 36 degrees. These shelters need bedding. These animals need dry bedding to remain comfortable during times of cold temperatures. Put bedding in these shelters.

Correct by: COB 11-9-16.

3.129(b) REPEAT

FEEDING.

The food receptacle boxes for the enclosure housing two American black bears and the enclosure housing two Asian black bears contained a large amount of rotting food debris. Any food fed in these areas is going to be contaminated by the rotting material present. These feeders need to be cleaned and made sanitary to ensure that the food fed to the bears is wholesome and free from bacterial or pest infestation which could result in health issues for the bears.

KURT HAMMEL, D V M

Prepared By:

KURT HAMMEL USDA, APHIS, Animal Care

Date:

10-NOV-2016

Title: VETERINARY MEDICAL OFFICER, 1023

Received By:

(b)(6), (b)(7)(c)

Title: CEO

Date:

16-NOV-2016



Inspection Report

3.130 REPEAT

WATERING.

The water receptacle for the enclosure containing the tiger known as Lilly has a large amount of algae slime lining its interior. This indicates that it is not being cleaned and sanitized on a regular basis. Water receptacles should be kept clean and sanitary to promote adequate water consumption which is essential for animal health. Clean and sanitize this water receptacle more frequently.

3.131(a) REPEAT

SANITATION.

There was excessive feces and food waste in the enclosure for the grizzly bear. The CEO told the inspectors that the enclosure had been cleaned about one month ago. This enclosure needs to be cleaned on a more frequent basis. This rotting material and feces can lead to pest control issues. The rotting material present in this bear's enclosure can contaminate it as it lies in its enclosure. The animal can ingest this material when it grooms itself. Not removing old food waste promptly can lead to contamination of new food. Ingesting this rotten material can lead to potential health problems. Clean this enclosure more frequently to prevent a buildup of food and fecal waste to minimize odors and prevent potential health problems.

3.131(c) REPEAT

SANITATION.

The majority of the premises is filled with various debris, old equipment, boards, trash and fence. Several other buildings on the property are also filled with old equipment and debris and trash. Tall weeds are located throughout the facility. These areas provide ample hiding areas for rodents and other pests and numerous rodent holes were located throughout the facility. All this material must be removed to help control pests.

3.131(d) REPEAT

SANITATION.

Numerous rodent holes were located throughout the facility. Rodent holes were located in the alleyway for the

Prepared By:

KURT HAMMEL, D V M

KURT HAMMEL USDA, APHIS, Animal Care

Title: VETERINARY MEDICAL OFFICER, 1023

Received By:

(b)(6), (b)(7)(c)

Title: CEO

Date:

10-NOV-2016

Date:

16-NOV-2016



Inspection Report

leopard row cat enclosures and going under the shelter for the cougar enclosure. Rodents can be carriers of disease which may be harmful to the animals housed in these areas. A more effective means of rodent control must be established for the facility.

3.132 CRITICAL REPEAT

EMPLOYEES.

It is evident that due to the nature and severity of the animal husbandry issues at the facility that there is a lack of adequately trained employees. The fact that no one at the facility had noted the condition of the coatimundi illustrates this point. Daily observation of all animals and reporting animals that need attention to the attending veterinarian are basic duties for facility employees. The facility relies on volunteer workers. A lack of properly trained employees can result in facility and animal conditions that result in unnecessary animal suffering. Of special concern on this inspection was the condition of the cow to be used for animal food at the facility. It was evident in our discussion with the CEO that he felt that this animal should be treated differently than other animals at the facility. He even referred to other meat animals that had been housed at the facility in the past to make his point to APHIS inspectors. This facility states that it is an animal sanctuary. The CEO demonstrates a very indifferent attitude towards animal welfare at the facility. This leads to a culture of indifference at this facility to basic animal needs and treatment. This is animal cruelty. It is this culture of indifference to basic needs of animals that puts all animals at the facility in danger. Animal numbers must be reduced or more properly trained workers need to be added. A facility schedule needs to be developed that allows for adequate employee coverage in order to address all animal husbandry needs. For the most part, the facility CEO is the only one authorized to work with the dangerous animals at the facility as the other authorized party has very limited availability. All animal work must be done with the dangerous animals under his direct supervision. This limits the amount of time that is available to service the dangerous animal enclosures as the facility CEO is often offsite. This leads to poor sanitation in the dangerous animal enclosures. The facility CEO needs to find a way to be onsite more or hire trained staff to help run the facility.

The inspection was conducted with the CEO and two members of the board. An informal exit interview was conducted with the CEO and two members of the board. All non-compliant items were discussed. Education materials were shared with the CEO and the board members. All direct non-compliant items were discussed and APHIS expectations for correction of these direct non-compliant items were made clear at this informal exit interview. Due to scheduling concerns the formal exit interview with the CEO was conducted on 11-16-16.

Additional Inspectors

Carrie Bongard, Animal Care Inspector

Prepared By:

KURT HAMMEL, D V M

KURT HAMMEL USDA, APHIS, Animal Care

Title: VETERINARY MEDICAL OFFICER, 1023

Received By:

(b)(6), (b)(7)(c)

Title: CEO

Date:

10-NOV-2016

Date:

16-NOV-2016



Cust No	Cert No	Site	Site Name	Inspection
6902	34-C-0227	001	SUMMER WIND FARM SANCTUARY	09-NOV-16

Count	Species
000001	Cattle/cow/ox/watusi
000001	Crab-eating/long-tailed macaque/cynomolgus monkey
000001	Japanese macaque
000001	Grizzly Bear
000001	White-nosed coati
000001	Sheep or mouflon
000002	Syrian Brown Bear
000003	Alpaca
000002	North American black bear
000001	Coyote
000007	Tiger
000002	Goat
000001	Vietnamese warty pig
000002	Asiatic black bear
000001	Red fox
000027	Total



Inspection Report

Summer Wind Farm Sanctuary
6490 Mowerson Rd
Brown City, MI 48416

Customer ID: **6902**

Certificate: **34-C-0227**

Site: 001

SUMMER WIND FARMS

Type: FOCUSED INSPECTION

Date: 16-NOV-2016

This inspection focused on the direct non-compliant items cited on the inspection dated 11-10-16.

The coatimundi, cow and Daisy the tiger have all received examination and evaluation by the attending veterinarian. Blood work results and a consultation with a veterinary expert for Daisy's condition are still pending. The coatimundi has been moved inside the warm room. The shelters for the alpacas have bedding.

No non-compliant items identified during this inspection.

This inspection and exit interview were conducted with the facility CEO and a board member.

Additional Inspectors

Carrie Bongard, Animal Care Inspector

Prepared By:

KURT HAMMEL, D V M

KURT HAMMEL USDA, APHIS, Animal Care

Title: VETERINARY MEDICAL OFFICER 1023

Date:
16-NOV-2016

Received By:

(b)(6), (b)(7)(c)

Title: CEO

Date:
16-NOV-2016



Cust No	Cert No	Site	Site Name	Inspection
6902	34-C-0227	001	SUMMER WIND FARM SANCTUARY	16-NOV-16

Count	Species
000001	Cattle/cow/ox/watusi
000001	White-nosed coati
000002	Alpaca
000001	Tiger
000002	Goat
000007	Total



Inspection Report

Summer Wind Farm Sanctuary
6490 Mowerson Rd
Brown City, MI 48416

Customer ID: **6902**

Certificate: **34-C-0227**

Site: 001

SUMMER WIND FARMS

Type: ATTEMPTED INSPECTION

Date: 13-DEC-2016

2.126(b)

ACCESS AND INSPECTION OF RECORDS AND PROPERTY; SUBMISSION OF ITINERARIES.

A responsible adult was not available to accompany APHIS Officials during the inspection process at 11:15 AM on 13-Dec-16.

Mr. Vanneste was present at the facility but was rushing to do chores as he had to leave due to a family emergency.

Prepared By:

KURT HAMMEL

KURT HAMMEL USDA, APHIS, Animal Care

Title: VETERINARY MEDICAL OFFICER 1023

Date:

13-DEC-2016

Received By:

(b)(6), (b)(7)(c)

Title:

Date:

13-DEC-2016



Cust No	Cert No	Site	Site Name	Inspection
6902	34-C-0227	001	SUMMER WIND FARM SANCTUARY	13-DEC-16

Count	Species
000000	None
000000	Total



Inspection Report

Summer Wind Farm Sanctuary
6490 Mowerson Rd
Brown City, MI 48416

Customer ID: **6902**

Certificate: **34-C-0227**

Site: 001

SUMMER WIND FARMS

Type: FOCUSED INSPECTION

Date: 28-DEC-2016

A focused inspection was conducted today. This inspection was to assess the health of the animals, inspect for Direct non-compliant items's and to obtain a current animal inventory.

No non-compliant items identified during this inspection.

This inspection and exit interview were conducted with the facility CEO. The report will be sent by mail due to time constraints on the part of the owner.

Additional Inspectors

Carrie Bongard, Animal Care Inspector

Prepared By:

KURT HAMMEL, D V M

KURT HAMMEL USDA, APHIS, Animal Care

Title: VETERINARY MEDICAL OFFICER 1023

Received By:

Title:

Date:

28-DEC-2016

Date:

28-DEC-2016



Inspection Report

Summer Wind Farm Sanctuary
6490 Mowerson Rd
Brown City, MI 48416

Customer ID: **6902**

Certificate: **34-C-0227**

Site: 001

SUMMER WIND FARMS

Type: ATTEMPTED INSPECTION

Date: 31-JAN-2017

2.126(b)

ACCESS AND INSPECTION OF RECORDS AND PROPERTY; SUBMISSION OF ITINERARIES.

A responsible adult was not available to accompany APHIS Officials during the inspection process at 11:00 AM on 31-JAN-17.

We arrived at the facility at 11:00 AM. I knocked on the door and received no response. I called Mr. Vanneste on his cell phone. I told Mr. Vanneste that Carrie and I were at his facility to conduct an inspection. He told me that he was no where near his facility. He stated that he had the flu and was going to the doctor. He stated that he was near Sterling Heights. I remarked that he had reported to me that he had been sick with the flu last Fall as well. I also remarked that he was traveling a long way to see the doctor for the flu. Mr. Vanneste then told me he also had a back problem and even if he was at the facility he would not be able to host an inspection as he could barley walk due to his back condition.

Additional Inspectors

Carrie Bongard, Animal Care Inspector

Prepared By:

KURT HAMMEL, D V M

KURT HAMMEL USDA, APHIS, Animal Care

Title: SUPERVISORY ANIMAL CARE SPECIALIST 1023

Received By:

Title:

Date:

31-JAN-2017

Date:

31-JAN-2017



Inspection Report

Summer Wind Farm Sanctuary
6490 Mowerson Rd
Brown City, MI 48416

Customer ID: **6902**
Certificate: **34-C-0227**
Site: 001
SUMMER WIND FARMS

Type: ROUTINE INSPECTION
Date: 20-MAR-2017

3.125(c) REPEAT

FACILITIES, GENERAL.

The meat cooler had an overwhelming odor of rotten and decaying meat. This odor is noticeable from a distance of several feet from outside the cooler with the door closed. This odor makes it very hard to determine if the meat items stored in this cooler are fit for animal consumption. Clean the cooler, identify the source of the odor and eliminate it.

The produce cooler contains spoiled produce. Deteriorating and softening bell peppers, discolored and softening oranges, spoiled lettuce and deteriorating celery were present in the cooler. This produce was stored on the already sorted (feed side of the cooler). Spoiled produce must be removed promptly to prevent contamination of food intended to be fed to the animals. Sort and remove spoiled produce promptly. This cooler needs to be cleaned and have spoiled and deteriorating items removed in order to prevent contamination of food items that will be fed to the animals. The facility management claims to be sorting the produce again before feeding but the deteriorating and rotten condition of the produce present in the American black bear food receptacle box makes it impossible for APHIS inspectors to determine if this is true.

3.129(b) REPEAT

FEEDING.

The food receptacle box for the enclosure housing two American black bears contained a large amount of rotting food debris both in and near it. Any food fed in this area is going to be contaminated by the rotting material present. These feeders need to be cleaned and made sanitary to ensure that the food fed to the bears is wholesome and free from bacterial or pest infestation which could result in health issues for the bears.

3.130 REPEAT

WATERING.

The water receptacle for the enclosure containing the tiger known as Daisy had a large amount of algae slime lining

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Title: SUPERVISORY ANIMAL CARE SPECIALIST 1023

Received By:

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Date:
21-MAR-2017

Date:
21-MAR-2017



Inspection Report

its interior. The water was green in appearance. The water receptacle for the Syrian Brown bear enclosure contained ice, dirt, a bone and a small amount of muddy water. The bear pool indicated by facility management as being the bears alternative source of water contained ice and dirty, discolored water. These water receptacles are not being cleaned and sanitized on a regular basis. Water receptacles should be kept clean and sanitary to promote adequate water consumption which is essential for animal health. Clean and sanitize these water receptacles more frequently. At the time of the inspection of the Syrian brown bear water receptacle, facility management did comment that "It was winter time and beggars can't be choosers." It is this nonchalant and indifferent attitude by management towards animal husbandry that directly results in all the poor husbandry conditions for the animals at this facility.

3.131(a) REPEAT

SANITATION.

There was excessive feces in the tiger known as Lilly's enclosure. There is excessive food waste and rotting produce near the food receptacle and in the American black bear enclosure. There is excessive bones in the enclosure for the grizzly bear. There is excessive feces and bones in the Asian black bear enclosure. The Asian black bear den floor is just bare dirt and bones. The Syrian brown bear enclosure contains excessive bones. There was a rotten odor in the cougar den box and a piece of rotting cow hide was present in the enclosure. These enclosures need to be cleaned on a more frequent basis. This rotting material and feces can lead to pest control issues. With warmer weather coming to the area quite soon these odor and pest control issues will be exacerbated. The rotting material present in the bear enclosure can contaminate them as they lie in their enclosure. These animals can ingest this material when they groom. Not removing old food waste promptly can lead to contamination of new food. Ingesting this rotten material can lead to potential health problems. Clean these enclosures more frequently to prevent a buildup of food and fecal waste to minimize odors and prevent potential health problems for the animals housed in them.

3.131(c) REPEAT

SANITATION.

Although there is now some evidence of clean up, a large portion of the premises is filled with various debris, old equipment, boards, trash and fence. Several other buildings on the property are also filled with old equipment and debris and trash. These areas provide ample hiding areas for rodents and other pests and numerous rodent holes were located throughout the facility. All this material must be removed to help control pests.

Prepared By:

HAMMEL KURT, D V M

HAMMEL KURT, D V M USDA, APHIS, Animal Care

Title: SUPERVISORY ANIMAL CARE SPECIALIST 1023

Received By:

Title:

Date:

21-MAR-2017

Date:

21-MAR-2017



Inspection Report

3.131(d) REPEAT

SANITATION.

Numerous rodent holes were located throughout the facility. Rodent holes were located in the alleyway for the leopard row cat enclosures. Rodent holes were noted going under the shelter for the cougar enclosure and in the cougar enclosure. Rodent holes were noted near and in the enclosure for the tiger known as Mohan. Rodent holes were seen in the vacant enclosure next to Mohan. Rodent holes were noted near the Asian black bear enclosure. Rodents can be carriers of disease which may be harmful to the animals housed in these areas. A more effective means of rodent control must be established for the facility.

3.132 CRITICAL REPEAT

EMPLOYEES.

It is evident that despite the reduction in animal numbers that there is a lack of adequately trained employees. The persistence of multiple animal welfare act violations related to basic animal husbandry issues illustrates this point. The facility relies on volunteer workers. A lack of properly trained employees can result in facility and animal conditions that result in unnecessary animal suffering. Of special concern on this inspection was the attitude of a member of facility management. In referring to the extremely dirty water receptacle in use in the Syrian brown bear enclosure she stated, "It is winter and beggars can't be choosers." It is this indifference to the basic animal husbandry needs of animals housed at this facility that leads to the poor conditions at the facility. This facility states that it is an animal sanctuary. This member of facility management demonstrates a very indifferent attitude towards animal welfare at the facility. This leads to a culture of indifference at this facility to basic animal needs and treatment. This is animal cruelty. It is this culture of indifference to basic needs of animals that puts all animals at the facility in danger. Animal numbers must be reduced or more properly trained workers need to be added.

The inspection was conducted with facility management and a volunteer worker. An informal exit interview was conducted with the CEO at the conclusion of the inspection. All non-compliant items were discussed. A formal exit interview was conducted with the CEO on 3-22-17.

The condition of the tiger known as Daisy is currently under review by APHIS officials.

Prepared By:

HAMMEL KURT, D V M

HAMMEL KURT, D V M USDA, APHIS, Animal Care

Title: SUPERVISORY ANIMAL CARE SPECIALIST 1023

Received By:

Title:

Date:

21-MAR-2017

Date:

21-MAR-2017



Inspection Report

Additional Inspectors

Bongard Carrie, Animal Care Inspector

Prepared By:

HAMMEL KURT, D V M

HAMMEL KURT, D V M USDA, APHIS, Animal Care

Title: SUPERVISORY ANIMAL CARE SPECIALIST 1023

Received By:

Title:

Date:

21-MAR-2017

Date:

21-MAR-2017



Inspection Report

Summer Wind Farm Sanctuary
6490 Mowerson Rd
Brown City, MI 48416

Customer ID: **6902**
Certificate: **34-C-0227**
Site: 001
SUMMER WIND FARMS

Type: ROUTINE INSPECTION
Date: 25-APR-2017

2.40(b)(2) DIRECT REPEAT

ATTENDING VETERINARIAN AND ADEQUATE VETERINARY CARE (DEALERS AND EXHIBITORS).

Daisy is a 20 month old tiger at the facility. APHIS inspectors first noticed that she was having balance issues in September 2016. At that time inspectors were shown records that indicated that the attending veterinarian had diagnosed otitis externa and otitis media on September 26, 2016. This diagnosis was done without immobilization of the tiger. The veterinarian had treated Daisy for a jaw abscess earlier in the summer of 2016. He assumed the ataxia was due to infection traveling from the jaw and infecting her middle and outer ear. Daisy has been off and on combinations of antibiotics and steroids since that time. Daisy's condition was noted to be much worse on an APHIS inspection on November 9, 2016. In response to the inspection report, Daisy was immobilized for an examination and blood collection. Blood work was not remarkable and Daisy was again treated for an inner ear infection. The attending veterinarian noted no obvious jaw or ear issues on the physical examination done at this time. (This was relayed to Animal Care's big cat specialist in a phone conversation that took place on March 29, 2017.) There can be other diagnoses which can be the cause of Daisy's symptoms, toxoplasmosis being highly likely. This information has been shared with the attending veterinarian on at least two occasions. The latest time was a phone conversation between Animal Care's big cat specialist and the attending veterinarian for the facility on March 29, 2017. Despite this information, a toxoplasmosis titer has never been done for Daisy and Daisy has never been treated with an antibiotic effective against toxoplasmosis at a high enough dose and for a long enough duration to be effective against the infection. Records reviewed on today's inspection showed that since the time of the last inspection on March 20, 2017, Daisy has been on various doses of prednisone and prednisone in combination with Baytril. Daisy is currently on daily prednisone. The lack of a diagnosis and effective treatment is causing the continued suffering of the tiger. A knowledgeable, expert veterinarian who specializes in exotic medicine (with training in big cat medicine) must be consulted. Results of this consultation must be documented and records must be available for APHIS review at the time of the next inspection.

3.129(a) DIRECT REPEAT

FEEDING.

Prepared By:

HAMMEL KURT, D V M

HAMMEL KURT, D V M USDA, APHIS, Animal Care

Title: SUPERVISORY ANIMAL CARE SPECIALIST 1023

Received By:

Title:

Date:
01-MAY-2017

Date:
02-MAY-2017



Inspection Report

There are two approximately 2 year old Syrian brown bears at the facility. These two bears have rough, dull looking hair coats, are thin and appear undersized for their age. A recent meal for the bears consisted of: approximately 10 gallons of apples, pears and carrots, 2 pounds of cheese and 2 to 3 gallons of cake trimmings. Based on our discussions with the CEO of the facility, APHIS inspectors think that a diet poor in nutritional content may be responsible for the appearance of these bears. These bears are still young and growing. Inadequate diet at this point in their life will lead to lifelong complications. This can result in a lifetime of unnecessary suffering for these bears. A diet plan must be developed for these bears. It should be written plan and it must be approved by the attending veterinarian. All items to be fed to the bears must be specified in the plan. Amounts and combinations of food items must be specified in enough detail so it is possible to determine if the meal is nutritionally adequate. Frequency of daily feedings and approximate feeding times must be documented in the feeding plan. Meals should be documented with time of day and all items and amounts fed noted. This documentation must be available for review by APHIS officials. Special consideration must be given to calcium level in the diet as these bears are not fully grown and require more calcium in their diet than an adult bear. Inadequate calcium levels could lead to conditions such as metabolic bone disease which would cause pain and suffering for these bears.

This inspection report documents APHIS findings for the tiger known as Daisy and the Syrian brown bears noted as being under review by APHIS officials on the inspection report delivered on 4-27-17.

Exit interview conducted with the facility CEO on 5-2-17.

Additional Inspectors

Bongard Carrie, Animal Care Inspector

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HAMMEL KURT, D V M USDA, APHIS, Animal Care

Title: SUPERVISORY ANIMAL CARE SPECIALIST 1023

Received By:

Title:

Date:

01-MAY-2017

Date:

02-MAY-2017



Inspection Report

Summer Wind Farm Sanctuary
6490 Mowerson Rd
Brown City, MI 48416

Customer ID: **6902**

Certificate: **34-C-0227**

Site: 001

SUMMER WIND FARMS

Type: ROUTINE INSPECTION

Date: 25-APR-2017

3.125(c) REPEAT

FACILITIES, GENERAL.

The meat cooler had an overwhelming odor of rotten and decaying meat. This odor makes it very hard to determine if the meat items stored in this cooler are fit for animal consumption. Clean the cooler, identify the source of the odor and eliminate it.

The produce cooler contains spoiled produce. Deteriorating bags of lettuce, discolored oranges, softening apples and another deteriorating bagged produce were present in the cooler. This produce was stored on the already sorted (feed side of the cooler). Spoiled produce must be removed promptly to prevent contamination of food intended to be fed to the animals. Sort and remove spoiled produce promptly. This cooler needs to be cleaned and have spoiled and deteriorating items removed in order to prevent contamination of food items that will be fed to the animals. A decaying dead rodent was noted inside a bin containing old monkey biscuits and a bag of dog food which was being fed to the emus according to the CEO. The facility management claims to be sorting the produce again before feeding but the deteriorating and rotten condition of the produce present in the American black bear and Asian black bear food receptacle boxes makes it impossible for APHIS inspectors to determine if this is true.

3.127(d)

FACILITIES, OUTDOOR.

Sections of the perimeter fence near Mohan's enclosure and near the grizzly bear enclosure are becoming over run with vines and trees. This excess of vegetation must be trimmed back to ensure the structural integrity of the fence and to allow for proper inspection of the fence. Large, dangerous animals are housed at this facility and the perimeter fence serves as a secondary barrier between these animals and the public. Any animal escape could have potentially lethal outcomes for the animal or a member of the public. Remove excess vegetation from these sections of the perimeter fence and any other areas of the perimeter where it is needed.

Correct by: 5-11-17.

Prepared By:

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HAMMEL KURT, D V M USDA, APHIS, Animal Care

Title: SUPERVISORY ANIMAL CARE SPECIALIST 1023

Received By:

Title:

Date:

26-APR-2017

Date:

27-APR-2017



Inspection Report

3.129(b) REPEAT

FEEDING.

The food receptacle boxes for the American black bear, Asian black bear and Syrian brown bear enclosures need to be cleaned. There is a large amount of rotting food debris in and around the Asian and American black bear boxes. All bear food receptacle boxes have walls and sides which are very dirty. These food receptacles are not sanitary. The grizzly bear is being fed on the dirt floor inside its shelter. Any food fed in this areas is going to be contaminated by the rotting material present. These feeders need to be cleaned and made sanitary to ensure that the food fed to the bears is wholesome and free from bacterial or pest infestation which could result in health issues for the bears. Diarrhea was noted inside the enclosures for the Asian black bears and American black bears. The CEO commented that diarrhea was quite a common occurrence for the bears and believed that this was very common in bears.

3.130 REPEAT

WATERING.

The water receptacle for the enclosure containing the tiger known as Daisy had a large amount of algae slime lining its interior. The water was green in appearance. The coyote water bucket had a layer of brown slime inside it. The water receptacle for the Syrian Brown bear enclosure contained a small amount of green water with algae floating in it. The American black bear water receptacle was empty. The pool inside the enclosure contained filthy green water. The water receptacle for the cougar contained very dirty water with material floating in it. These water receptacles are not being cleaned and sanitized on a regular basis. Water receptacles should be kept clean and sanitary to promote adequate water consumption which is essential for animal health. Clean and sanitize these water receptacles more frequently.

3.131(a) REPEAT

SANITATION.

There was excessive feces in the tiger known as Lilly's enclosure. There was excessive food waste inside Lilly's shelter. There was excessive food waste and feces inside the shelter for the tiger known as Daisy. There was excessive feces and food waste in the tiger known as Mohan's enclosure. There was excessive food waste in the den area of Mohan's enclosure. There is excessive food waste and rotting produce near the food receptacle and in the Asian black bear enclosure. There is excessive bones and food waste in the enclosure for the grizzly bear. There was excessive food waste and rotting material present in the cougar den box. There was excessive fecal

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Received By:

Title:

Date:

26-APR-2017

Date:

27-APR-2017



Inspection Report

material in the cougar's enclosure. An enclosure housing two foxes contained excessive feces and damp soiled bedding material. These enclosures need to be cleaned on a more frequent basis. This rotting material and feces can lead to pest control issues. With warmer weather coming to the area quite soon these odor and pest control issues will be exacerbated. The rotting material present in these animal enclosures can contaminate them as they lie in their enclosures. These animals can ingest this material when they groom. Not removing old food waste promptly can lead to contamination of new food. Ingesting this rotten material can lead to potential health problems. Clean these enclosures more frequently to prevent a buildup of food and fecal waste to minimize odors and prevent potential health problems for the animals housed in them.

3.131(c) REPEAT

SANITATION.

The entire premises is filled with various debris, old equipment, boards, trash old animal enclosures and fence. Several other buildings on the property are also filled with old equipment and debris and trash. Tall weed were present in many area of the facility. These areas provide ample hiding areas for rodents and other pests and numerous rodent holes were located throughout the facility. All this material must be removed to help control pests.

The food preparation/ butcher area counter is cluttered with supplies and is very dirty. Butcher knives still dirty with blood are on the counter. The cabinet under the counter is rotting away do to a water leak. The room next to the butcher area is filled with debris. An old cooler right outside the butcher area is overgrown with mold. These conditions make it impossible to properly clean these areas. Remove all this trash and debris and clean and sanitize the food preparation area.

3.131(d) REPEAT

SANITATION.

Many rodent holes were located throughout the facility. Rodent holes were located in the alleyway for the leopard row cat enclosures. A rodent hole was noted going under the shelter for the cougar enclosure. A dead and mummifying mouse was noted inside a food receptacle bin inside the produce cooler. Rodent feces was noted on shelves inside the warm room. Rodents can be carriers of disease which may be harmful to the animals housed in these areas. A more effective means of rodent control must be established for the facility.

3.132 CRITICAL REPEAT

EMPLOYEES.

Prepared By:

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HAMMEL KURT, D V M USDA, APHIS, Animal Care

Title: SUPERVISORY ANIMAL CARE SPECIALIST 1023

Received By:

Title:

Date:

26-APR-2017

Date:

27-APR-2017



Inspection Report

It is evident that despite the reduction in animal numbers that there is a lack of adequately trained employees. The persistence of multiple animal welfare act violations related to basic animal husbandry issues illustrates this point. The facility relies on volunteer workers. A lack of properly trained employees can result in facility and animal conditions that result in unnecessary animal suffering. Prior to the start of the inspection today a member of facility management stated to the inspectors that she felt the findings on our inspections were not a big deal. It is this indifference to the basic animal husbandry needs of animals housed at this facility that contributes to the poor conditions at this facility. Animal numbers must be reduced or more properly trained workers need to be added.

The inspection was conducted with the facility CEO. An informal exit interview was conducted with the CEO at the conclusion of the inspection. A formal exit interview was conducted with the CEO on 4-27-17.

The condition of the tiger known as Daisy and the Syrian brown bears is under review by APHIS officials.

Additional Inspectors

Bongard Carrie, Animal Care Inspector

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HAMMEL KURT, D V M USDA, APHIS, Animal Care

Title: SUPERVISORY ANIMAL CARE SPECIALIST 1023

Received By:

Title:

Date:

26-APR-2017

Date:

27-APR-2017



Inspection Report

Summer Wind Farm Sanctuary
6490 Mowerson Rd
Brown City, MI 48416

Customer ID: **6902**
Certificate: **34-C-0227**
Site: 001
SUMMER WIND FARMS

Type: ROUTINE INSPECTION
Date: 16-MAY-2017

2.40(b)(2) DIRECT REPEAT

ATTENDING VETERINARIAN AND ADEQUATE VETERINARY CARE (DEALERS AND EXHIBITORS).

Daisy is a 20 month old tiger at the facility. APHIS inspectors first noticed that she was having balance issues in September 2016. At that time inspectors were shown records that indicated that the attending veterinarian had diagnosed otitis externa and otitis media on September 26, 2016. This diagnosis was done without immobilization or hands on examination of the tiger. The veterinarian had treated Daisy for a jaw abscess earlier in the summer of 2016. He assumed the ataxia was due to infection traveling from the jaw and infecting her middle and outer ear. Daisy has been off and on combinations of antibiotics and steroids since that time. Daisy's condition was noted to be much worse on an APHIS inspection on November 9, 2016. In response to the inspection report, Daisy was immobilized for an examination and blood collection. Blood work was not remarkable and Daisy was again treated for an inner ear infection. The attending veterinarian noted no obvious jaw or ear issues on the physical examination done at this time. (This was relayed to Animal Care's big cat specialist in a phone conversation that took place on March 29, 2017.) There can be other diagnoses which can be the cause of Daisy's symptoms, toxoplasmosis being highly likely. This information has been shared with the attending veterinarian on at least two occasions. The latest time was a phone conversation between Animal Care's big cat specialist and the attending veterinarian for the facility on March 29, 2017. Despite this information, a toxoplasmosis titer has never been done for Daisy and Daisy has never been treated with an antibiotic effective against toxoplasmosis at a high enough dose and for a long enough duration to be effective against the infection. Records reviewed on the inspection of April, 25, 2017 showed that since the time of the inspection on March 20, 2017, no additional diagnostics have been done. Daisy has been on various doses of prednisone and prednisone in combination with Baytril. Daisy has been on daily prednisone since the time of the inspection on April, 25, 2017. Today the CEO of the facility stated to APHIS inspectors that Daisy has had several bad days lately and that they have increased her prednisone dose. Daisy was extremely reluctant to move. She was hiding in the back of her enclosure in a in a sternal position under her perch. It took seven minutes of coaxing in order to get her to move. Daisy then did move inside her shelter. With more coaxing Daisy moved to her water receptacle located in the front of the outdoor portion of the enclosure. This is a distance of about 15 feet. Daisy appeared lethargic and slumped against the enclosure fence resting her head on the water receptacle. Daisy appeared to be exhausted from the effort it took to reach the water receptacle and

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Title: SUPERVISORY ANIMAL CARE SPECIALIST 1023

Received By:

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Date:

18-MAY-2017

Date:

18-MAY-2017



Inspection Report

her head tilt was apparent while she was drinking. Her tail still demonstrates a corkscrew appearance. Her hair coat appears dull and rough. Today Daisy was growling and wanted to stay at the back of her enclosure withdrawing from inspectors. This is a contrast to inspections in the past where Daisy has had a more curious and social attitude towards the APHIS inspectors. No diagnostics have been done for Daisy since the time of the last inspection. The lack of a diagnosis and effective treatment is causing the continued suffering of the tiger. A knowledgeable, expert veterinarian who specializes in exotic medicine (with training in big cat medicine) must be consulted. Results of this consultation must be documented and records must be available for APHIS review at the time of the next inspection.

The white tiger known as Mohan is walking with a very stiff and hesitant gait today. When the enclosure was first approached Mohan was lying down. Mohan rose slowly and walked with a hitching and awkward gait. Mohan's stance was bowlegged in appearance and he walked very slowly for about 20 feet before immediately lying down again. APHIS inspectors have discussed the condition of this tiger on previous inspections but Mohan appears much worse today. The CEO has stated on previous occasions that the attending veterinarian has evaluated Mohan but that he has not wanted to treat him as he thinks that it is an old age condition and that pain medications would lead to renal failure. Mohan has had no diagnostics done that would indicate that this could be a concern. Mohan appears to be in extreme pain today. Mohan is suffering in his current condition and is in need of veterinary evaluation. Veterinary treatment recommendations must be documented and made available for APHIS inspectors.

2.75(b)(1)

RECORDS: DEALERS AND EXHIBITORS.

The licensee was asked to show APHIS inspectors the record of animals on hand. The licensee was unable to produce the required records at time of inspection. These records are used to trace and track animals and to estimate age of the animals for health concerns. Of particular concern on this inspection was a tiger known as Mohan. Mohan was experiencing ambulatory difficulty at the time of inspection and inspectors wanted to verify that Mohan was in his mid-twenties as the CEO of the facility stated to them.

Correct by: Correct from this time forward.

3.81(c)

ENVIRONMENT ENHANCEMENT TO PROMOTE PSYCHOLOGICAL WELL-BEING.

The nonhuman primate enrichment plan does not address the two nonhuman primates housed in the warm room.

Prepared By:

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HAMMEL KURT, D V M USDA, APHIS, Animal Care

Title: SUPERVISORY ANIMAL CARE SPECIALIST 1023

Received By:

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Date:

18-MAY-2017

Date:

18-MAY-2017



Inspection Report

These nonhuman primates must be given special consideration in the nonhuman primate enrichment plan as they are currently not able to see each other in their current housing arrangement. Address extra enrichment to be given these animals in the nonhuman primate enrichment plan.

Correct by: 6-1-17

3.125(a) REPEAT

FACILITIES, GENERAL.

There was a board approximately 12" by 18" that had several nails sticking straight up in the Syrian brown bear enclosure. This board was in an area that the bears frequently pace, just to the right of the food bin. The area on the shelter, where the board with nails came from, also has nails sticking out of it. Housing facilities must be maintained in good repair to prevent injury to the bears contained in the enclosure.

3.125(c) REPEAT

FACILITIES, GENERAL.

The produce cooler contains spoiled produce. Deteriorating bags of lettuce, discolored broccoli, discolored brussel sprouts and molding corn were present in the cooler. This produce was stored on the already sorted (feed side of the cooler). Spoiled produce must be removed promptly to prevent contamination of food intended to be fed to the animals. Sort and remove spoiled produce promptly. This cooler needs to be cleaned and have spoiled and deteriorating items removed in order to prevent contamination of food items that will be fed to the animals. The facility CEO states that produce is sorted again prior to feeding but the condition of the produce in the Asian black bear, North American black bear and grizzly bear enclosures make it impossible for APHIS inspectors to determine if this is true.

3.127(d) REPEAT

FACILITIES, OUTDOOR.

Sections of the perimeter fence near Mohan's enclosure and near the grizzly bear enclosure are becoming over run with vines and trees. This excess of vegetation must be trimmed back to ensure the structural integrity of the fence and to allow for proper inspection of the fence. Large, dangerous animals are housed at this facility and the perimeter fence serves as a secondary barrier between these animals and the public. Any animal escape could have potentially lethal outcomes for the animal or a member of the public. Remove excess vegetation from these sections of the perimeter fence and any other areas of the perimeter where it is needed.

Prepared By:

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Title: SUPERVISORY ANIMAL CARE SPECIALIST 1023

Received By:

Title:

Date:

18-MAY-2017

Date:

18-MAY-2017



Inspection Report

3.129(a) DIRECT REPEAT

FEEDING.

There are two approximately 2 year old Syrian brown bears at the facility. These two bears have rough, dull looking hair coats, are thin and appear undersized for their age. At the time of the last inspection the CEO described a recent meal fed to the bears as consisting of: approximately 10 gallons of apples, pears and carrots, 2 pounds of cheese and 2 to 3 gallons of cake trimmings. Based on our discussions with the CEO of the facility, APHIS inspectors think that a diet poor in nutritional content may be responsible for the appearance of these bears. These bears are still young and growing. Inadequate diet at this point in their life will lead to lifelong complications. This can result in a lifetime of unnecessary suffering for these bears. A diet plan must be developed for these bears. It should be written plan and it must be approved by the attending veterinarian. All items to be fed to the bears must be specified in the plan. Amounts and combinations of food items must be specified in enough detail so it is possible to determine if the meal is nutritionally adequate. Frequency of daily feedings and approximate feeding times must be documented in the feeding plan. Meals should be documented with time of day and all items and amounts fed noted. This documentation must be available for review by APHIS officials. Special consideration must be given to calcium level in the diet as these bears are not fully grown and require more calcium in their diet than an adult bear. Inadequate calcium levels could lead to conditions such as metabolic bone disease which would cause pain and suffering for these bears. The CEO stated to APHIS inspectors today that the facility has not begun to develop a diet plan or record items fed to the bears.

3.129(b) REPEAT

FEEDING.

The food receptacle boxes for the American black bear and Asian black bear enclosures need to be cleaned. There is a large amount of rotting food debris in the Asian black bear enclosure and den area. These bear food receptacle boxes have walls and sides which are very dirty. These food receptacles are not sanitary. The grizzly bear is being fed on the dirt floor inside its shelter. Any food fed in this areas is going to be contaminated by the rotting material present. These feeders need to be cleaned and made sanitary to ensure that the food fed to the bears is wholesome and free from bacterial or pest infestation which could result in health issues for the bears. Diarrhea was noted inside the enclosure for the North American black bears.

3.130 REPEAT

WATERING.

The water receptacle for the enclosure containing the cougar had a large amount of brown algae sludge coating its interior and floating in the water. This water receptacle is not being cleaned and sanitized on a regular basis.

Prepared By:

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HAMMEL KURT, D V M USDA, APHIS, Animal Care

Title: SUPERVISORY ANIMAL CARE SPECIALIST 1023

Received By:

Title:

Date:

18-MAY-2017

Date:

18-MAY-2017



Inspection Report

Water receptacles should be kept clean and sanitary to promote adequate water consumption which is essential for animal health. Clean and sanitize water receptacles more frequently.

3.131(a) REPEAT

SANITATION.

There was excessive feces in the tiger known as Lilly's enclosure. There was excessive food waste inside the tiger known as Pandora's shelter. There was excessive food waste in the Syrian brown bear enclosure. There was excessive food waste in the tiger known as Mohan's enclosure. There was excessive food waste in the den area of Mohan's enclosure. There is excessive food waste and feces in the Asian black bear enclosure. There was rotting produce and excessive food waste and feces in the Asian black bear enclosure. There was loose stool and excessive feces in the North American black bear den. There was a piece of rotting meat in the North American black bear enclosure. The pool in the North American black bear pen was filled with very bright green algae tinted water. There is rotting food debris present in the feed area for the grizzly bear and in the grizzly bear enclosure. There was excessive food waste and rotting material present in the cougar den box. An enclosure housing one fox contained rotting food waste. These enclosures need to be cleaned on a more frequent basis. This rotting material and feces can lead to pest control issues. With warmer weather coming to the area quite soon these odor and pest control issues will be exacerbated. The rotting material present in these animal enclosures can contaminate them as they lie in their enclosures. These animals can ingest this material when they groom. Not removing old food waste promptly can lead to contamination of new food. Ingesting this rotten material can lead to potential health problems. Clean these enclosures more frequently to prevent a buildup of food and fecal waste to minimize odors and prevent potential health problems for the animals housed in them.

3.131(c) REPEAT

SANITATION.

The entire premises is filled with various debris, old equipment, boards, trash old animal enclosures and fence. Several other buildings on the property are also filled with old equipment and debris and trash. Tall weed were present in many area of the facility. These areas provide ample hiding areas for rodents and other pests and numerous rodent holes were located throughout the facility. All this material must be removed to help control pests.

The cabinet under the butcher counter is rotting away do to a water leak. An old cooler right outside the butcher area is overgrown with mold. These conditions make it impossible to properly clean these areas. Remove all this

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Date:

18-MAY-2017

Date:

18-MAY-2017



Inspection Report

trash and repair the cabinet and water leak so that this food preparation area can be cleaned and sanitized.

3.131(d) REPEAT

SANITATION.

Many rodent holes were located throughout the facility. A rodent hole was located next to the tiger known as Pandora's enclosure. A rodent hole was located next to the tiger known as Mohan's enclosure. A rodent hole was noted going under the shelter for the cougar enclosure. A rodent hole was located in a monkey enclosure not currently in use. Rodent feces was noted on shelves inside the warm room. Rodents can be carriers of disease which may be harmful to the animals housed in these areas. A more effective means of rodent control must be established for the facility.

3.132 CRITICAL REPEAT

EMPLOYEES.

It is evident that despite the reduction in animal numbers that there is a lack of adequately trained employees. The persistence of multiple animal welfare act violations related to basic animal husbandry issues illustrates this point. The facility relies on volunteer workers. A lack of properly trained employees can result in facility and animal conditions that result in unnecessary animal suffering. Animal numbers must be reduced or more properly trained workers need to be added.

An exit interview was conducted at the conclusion of the facility inspection with the CEO. All non-compliant items were discussed. A formal exit interview was conducted with the facility CEO on 5-18-17.

Additional Inspectors

Bongard Carrie, Animal Care Inspector

Kingston Susan, Supervisory Animal Care Specialist

Prepared By:

HAMMEL KURT, D V M

HAMMEL KURT, D V M USDA, APHIS, Animal Care

Title: SUPERVISORY ANIMAL CARE SPECIALIST 1023

Received By:

Title:

Date:

18-MAY-2017

Date:

18-MAY-2017



Inspection Report

Summer Wind Farm Sanctuary
6490 Mowerson Rd
Brown City, MI 48416

Customer ID: **6902**
Certificate: **34-C-0227**
Site: 001
SUMMER WIND FARMS

Type: ROUTINE INSPECTION
Date: 27-JUN-2017

2.40(a)(2)

ATTENDING VETERINARIAN AND ADEQUATE VETERINARY CARE (DEALERS AND EXHIBITORS).

The attending veterinarian has written in the Program of Veterinary Care that deworming of all species of animals at the facility should be done twice per year or as indicated by fecal checks. The last fecal checks done on any species were done in late October or early November, 2016. All species of animals at the facility are now overdue for twice yearly deworming or fecal checks as dictated by the attending veterinarian. It is essential that the facility follow the direction of the attending veterinarian in order to ensure the health of animals at the facility. This is of special concern this inspection as diarrhea was noted in Syrian Brown bear and grizzly bear enclosures. Also the Japanese macaque cross monkey at the facility appeared thin with a sparse hair coat and prominent backbone.

Correct by: 7-6-17

2.40(b)(2)

REPEAT

ATTENDING VETERINARIAN AND ADEQUATE VETERINARY CARE (DEALERS AND EXHIBITORS).

A male-neutered Japanese macaque at the facility is noticeably thinner than at the time of the last inspection. The hair coat also appears to be sparse and its backbone is prominent. The attending veterinarian has not examined this animal or assessed the diet. No weights have ever been obtained on this animal. Weight loss can be due to a variety of health reasons, including malnutrition, parasitism, and various disease conditions. Examination and evaluation of this macaque by the attending veterinarian is necessary to ensure that the right diagnostic and treatment plans are in place to protect against the continuing deterioration of this animals condition leading to pain and suffering.

A female tiger known as Pandora walks with a slight left rear leg lameness. The CEO of the facility stated that it is and off and on condition. He also stated that no evaluation of this condition has ever been done by the attending veterinarian as the cat has been symptom free whenever the veterinarian has been visiting the facility. Examination and evaluation of this tiger by the attending veterinarian is necessary to ensure that the right diagnostic and

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Title: SUPERVISORY ANIMAL CARE SPECIALIST 1023

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Date:
28-JUN-2017

Date:
29-JUN-2017



Inspection Report

treatment plans are in place to protect against the continuing deterioration of this tiger's condition leading to pain and suffering.

The black bear known as Buffy has a lesion on the left side of her nose. A grayish green discharge is present. This discharge was first noticed by APHIS inspectors on the inspection of May 16, 2017. At this time the facility CEO reached through the fence and wiped it away. He stated that it was left over ground bacon which had been fed to the bears the night before. About two weeks after the May 16 inspection, the attending veterinarian was consulted for an abscess on the left side of the bears nose. This was in the same location that the CEO had stated was bacon. The bear was not examined by the attending veterinarian at the time of the consultation. After consultation with the attending veterinarian, the bear was placed on antibiotics for this condition. Treatment records reviewed showed that from 5/31/17 to 6/7/17 the bear was on 2500 mg of amoxicillin twice per day. The bear has now been off the antibiotics for 20 days and the discharge is still present from the same area on the left side of the bear's muzzle. Examination and evaluation of this bear by the attending veterinarian is necessary to ensure that the right diagnostic and treatment plans are in place to protect against the continuing deterioration of this animals condition leading to potential pain and suffering.

All of these animals must be examined by the attending veterinarian by 7-6-17. Records of veterinary recommendations and treatment records must be available for APHIS inspectors.

2.75(b)(1) REPEAT

RECORDS: DEALERS AND EXHIBITORS.

The licensee was asked to show APHIS inspectors the record of animals on hand. The licensee was unable to produce the required records at time of inspection. These records are used to trace and track animals and to estimate age of the animals for health concerns. Of particular concern on this inspection was a Japanese macaque cross monkey. This monkey appeared thin with a sparse hair coat and prominent backbone. The CEO of the facility stated he had no idea of the age of the monkey. APHIS inspectors wanted to see an acquisition record or information regarding the date of acquisition on the animals on hand record. This information was not able to be located by the facility CEO.

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Title: SUPERVISORY ANIMAL CARE SPECIALIST 1023

Received By:

Title:

Date:

28-JUN-2017

Date:

29-JUN-2017



Inspection Report

3.75(c)(3)

HOUSING FACILITIES, GENERAL.

The enclosure containing the crab-eating macaque contains a pool filled with greenish tinged water. Mosquito larvae can be seen swimming in the water. This pool needs to be cleaned. Clean this pool as often as necessary to prevent vermin from infesting the pool. Mosquito's can spread several diseases harmful to the animals housed at this facility.

Correct by: COB 6-29-17

3.82(a)

FEEDING.

A male-neutered Japanese macaque at the facility is noticeably thinner than at the time of the last inspection. The CEO stated that he is feeding about 12 Mazuri brand monkey biscuits per day along with produce. The produce fed last night was about two pounds of green beans and carrots according to the CEO. The AV has not assessed this diet, however, information provided to the facility last fall by APHIS inspectors states that monkeys of this type should be given 12 to 16 biscuits twice per day along with produce. The only bag of monkey biscuits at the facility only contained about 20 biscuits, which is used to feed the two NHP housed at the facility. The facility is feeding this monkey about half of the ration that it requires. This monkey requires more monkey biscuits. Review materials provided by APHIS inspectors on caloric requirements for this monkey. Begin to document amounts of biscuits and other items fed to this monkey on a daily basis. Also record the times of feeding and amount of biscuits and produce left uneaten if applicable. This information is essential for the facility veterinarian in order to determine if the monkey is receiving adequate amounts of nutritionally adequate food. Keep receipts for all monkey biscuit purchases. These items should all be available for review by APHIS inspectors.

Correct by: 6-30-17

3.125(a) REPEAT

FACILITIES, GENERAL.

There are tree branches growing into the electric fence for the North American black bear enclosure and the grizzly bear enclosure. These branches could interfere with the ability of the fence to function properly. Housing facilities must be maintained in good repair to contain the bears in these enclosures. These bears are dangerous animals and any escape could have lethal consequences to a facility volunteer, a member of the public or the bears.

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Title: SUPERVISORY ANIMAL CARE SPECIALIST 1023

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Date:

28-JUN-2017

Date:

29-JUN-2017



Inspection Report

3.125(c) REPEAT

FACILITIES, GENERAL.

The storage can used to hold the mineral supplement fed to the large cats is rusting on its interior. This can can no longer be cleaned and sanitized. This can must be replaced to ensure that this supplement stays contamination free.

3.129(a) DIRECT REPEAT

FEEDING.

There are two approximately 2 year old Syrian brown bears at the facility. These two bears have rough, dull looking hair coats, are thin and appear undersized for their age. The CEO described the meal fed to the bears on Monday night as consisting of: approximately 4 gallons of apples, corn, Brussels sprouts and carrots, ten pounds of bacon and four gallons of cake trimmings. Based on our discussions with the CEO of the facility, APHIS inspectors think that a diet poor in nutritional content may be responsible for the appearance of these bears. These bears are still young and growing. Inadequate diet at this point in their life will lead to lifelong complications. This can result in a lifetime of unnecessary suffering for these bears. A diet plan must be developed for these bears. It should be written plan and it must be approved by the attending veterinarian. All items to be fed to the bears must be specified in the plan. Amounts and combinations of food items must be specified in enough detail so it is possible to determine if the meal is nutritionally adequate. Frequency of daily feedings and approximate feeding times must be documented in the feeding plan. Meals should be documented with time of day and all items and amounts fed noted. This documentation must be available for review by APHIS officials. Special consideration must be given to calcium level in the diet as these bears are not fully grown and require more calcium in their diet than an adult bear. Inadequate calcium levels could lead to conditions such as metabolic bone disease which would cause pain and suffering for these bears.

The CEO of the facility also stated to APHIS inspectors that he has now reconsidered his plan to have a diet formulated for the bears as it is too expensive relative to a 26% protein dog food he plans to feed to the bears instead. It has now been 42 days that the CEO has been working on this issue. The CEO states that he made this decision a couple of days ago. There is still none of this dog food onsite and available to be fed to these bears. No time frame was given to inspectors for when this will be accomplished.

3.129(b) REPEAT

FEEDING.

Prepared By:

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HAMMEL KURT, D V M USDA, APHIS, Animal Care

Title: SUPERVISORY ANIMAL CARE SPECIALIST 1023

Date:

28-JUN-2017

Received By:

Title:

Date:

29-JUN-2017



Inspection Report

The food receptacle boxes for the Syrian brown bear and North American black bear enclosures need to be cleaned. These bear food receptacle boxes have walls and sides which are very dirty. Rotting food material is present in the North American black bear food box. These food receptacles are not sanitary. Any food fed in this receptacles is going to be contaminated by the rotting material present. These feeders need to be cleaned and made sanitary to ensure that the food fed to the bears is wholesome and free from bacterial or pest infestation which could result in health issues for the bears. Diarrhea was noted inside the enclosure for the Syrian brown bears.

3.130 REPEAT

WATERING.

The water receptacle for the enclosure containing the coyote had a large amount of green algae coating its interior. The Syrian brown bear water receptacle contained green water. The Asian black bear pen contained a layer of greenish algae slime and greenish debris. These water receptacles are not being cleaned and sanitized on a regular basis. Water receptacles should be kept clean and sanitary to promote adequate water consumption which is essential for animal health. Clean and sanitize water receptacles more frequently.

3.131(a) REPEAT

SANITATION.

There was excessive food waste in the Syrian brown bear enclosure. There is excessive feces in the Asian black bear enclosure. Some of this feces has turned white in color indicating that it has been in the enclosure for a long period of time. There was rotting material present in the Asian black bear den. There was excessive food waste present in the North American black bear enclosure. There was a piece of rotting hide in the coyote enclosure. The pools in the North American black bear pen, grizzly bear pen and Asian black bear pen were filled with very bright green algae tinted water. There was excessive food waste and rotting material present in the cougar den box. There was excessive feces in the cougar enclosure. These enclosures need to be cleaned on a more frequent basis. This rotting material and feces can lead to pest control issues. The rotting material present in these animal enclosures can contaminate them as they lie in their enclosures. These animals can ingest this material when they groom. Not removing old food waste promptly can lead to contamination of new food. Ingesting this rotten material can lead to potential health problems. Clean these enclosures more frequently to prevent a buildup of food and fecal waste to minimize odors and prevent potential health problems for the animals housed in them.

Prepared By:

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HAMMEL KURT, D V M USDA, APHIS, Animal Care

Title: SUPERVISORY ANIMAL CARE SPECIALIST 1023

Received By:

Title:

Date:

28-JUN-2017

Date:

29-JUN-2017



Inspection Report

3.131(c) REPEAT

SANITATION.

The entire premises is filled with various debris, old equipment, boards, trash old animal enclosures and fence. Several other buildings on the property are also filled with old equipment and debris and trash. Tall weed were present in many area of the facility. These areas provide ample hiding areas for rodents and other pests and numerous rodent holes were located throughout the facility. All this material must be removed to help control pests.

The cabinet under the butcher counter is rotting away do to a prior water leak. The band saw used for butchering meat has a coating of blood, hair and grease on it and needs to be cleaned. This cabinet must be repaired or replaced to allow cleaning and sanitation of this area. The band saw needs to be cleaned to prevent bacterial or pest infestation of future food items processed using this saw.

3.131(d) REPEAT

SANITATION.

Numerous rodent holes were located throughout the facility. A rodent hole was located in the tiger known as Lilly's enclosure. Rodent holes were located around the Syrian brown bear enclosure. Rodent holes were located around the Asian black bear enclosure. Rodent holes were noted going under the shelter for the cougar enclosure. A rodent hole was located inside the cougar den area. Rodents can be carriers of disease which may be harmful to the animals housed in these areas. A more effective means of rodent control must be established for the facility.

3.132 CRITICAL REPEAT

EMPLOYEES.

It is evident that despite the reduction in animal numbers that there is a lack of adequately trained employees. The persistence of multiple animal welfare act violations related to basic animal husbandry issues illustrates this point. The facility relies on volunteer workers. A lack of properly trained employees can result in facility and animal conditions that result in unnecessary animal suffering. Animal numbers must be reduced or more properly trained workers need to be added.

An exit interview was conducted with the facility CEO at the conclusion of the facility inspection. All non-compliant items were discussed. A formal exit interview was conducted with the facility CEO on 6-29-17.

Prepared By:

HAMMEL KURT, D V M

HAMMEL KURT, D V M USDA, APHIS, Animal Care

Title: SUPERVISORY ANIMAL CARE SPECIALIST 1023

Received By:

Title:

Date:

28-JUN-2017

Date:

29-JUN-2017



Inspection Report

Additional Inspectors

Bongard Carrie, Animal Care Inspector

Prepared By:

HAMMEL KURT, D V M

HAMMEL KURT, D V M USDA, APHIS, Animal Care

Title: SUPERVISORY ANIMAL CARE SPECIALIST 1023

Received By:

Title:

Date:

28-JUN-2017

Date:

29-JUN-2017

Inspection Report

Arbuckle Adventures L L C
Arbuckle Wilderness Park
6132 Kay Starr Trail
Davis, OK 73030

Customer ID: 324698
Certificate: 73-C-0190
Site: 001
Arturo Alvarez

Type: ROUTINE INSPECTION
Date: Aug 14-2014

2.131 (c) (1) REPEAT
HANDLING OF ANIMALS.

- The Jacob sheep in the walk-through portion of the park had no public barrier and no park employees were present. The facility representative stated that the public had access to the area without constant park employee supervision. She stated that employees came and went from the area during the day as they performed their duties.

- A sheep and llama in the walk-through zoo had escaped their enclosure and were in their public barrier area. A goat from this enclosure had escaped the public barrier area as well and was free in the park. The facility representative stated that the public had access to the area without constant park employee supervision. She stated that employees came and went from the area during the day as they performed their duties. These animals are in a location which would allow them to easily have contact with members of the public.

3.125 (a) DIRECT NC
FACILITIES, GENERAL.

- The enclosure housing the sheep, goat and llama have a single shelter which contained the only food and water available to the animals. This shelter has three entrances allowing access to the shelter. All three entrances had numerous dangling wires that are in contact with the animals as they enter the shelter. The middle entrance had five loosely hung horizontal wires approximately six inches apart. These wires covered an area from the roof to approximately 3 feet from the ground. The outer entrances had multiple wires of various length hanging vertically from the roof. Since these wires obstruct all potential entrances the animals cannot avoid contacting the wires and are in danger of entrapment or other injury every time they attempt to gain access to their food or water. These wires must be removed or secured to avoid obstructing access to the shelter.

To be corrected immediately.

Prepared By:

DEBBIE CUNNINGHAM, V M O

DEBBIE CUNNINGHAM, VMO USDA, APHIS, Animal Care

Date: Aug-14-2012

Title: VETERINARY MEDICAL OFFICER Inspector 6072

Received By:

(b)(6), (b)(7)(c)

Date: Aug-14-2014

Title:



Inspection Report

3.125 (b)

FACILITIES, GENERAL.

- Two cavy's being kept in an outdoor enclosure in the walk-through area of the park have an area of the fence that is rolled at the bottom and has sharp points exposed to the animals. This area of rolled fence is approximately 3 foot in length and is raised off the bottom of the enclosure approximately 2 to 3 inches. This section of fencing is a potential source of injury or entrapment to the enclosed animals. This fencing must be removed or repaired. All enclosures must be kept in good repair and protect the animals from injury.

Correct by: 16 August 2014

3.130

WATERING.

- The enclosure housing the goat, llama, and sheep had a single water receptacle. The water was greenish in color and particulate material was floating as well as settled on the bottom. There were also many live larvae and insects present in the water.

- The kangaroo enclosure had a single water receptacle. The water was greenish in color and particulate material was present. There was reddish brown rust like material scattered on the bottom of the receptacle and several dead insects were present. Water receptacles must be cleaned and contain potable water. More frequent cleaning and sanitizing is needed.

Corrected by: 15 August 2014

3.131 (c)

SANITATION.

- Throughout the walk through area of the zoo there were multiple areas that contained an excessive overgrowth of weeds and foliage in close proximity to the enclosures. The primary areas affected were the kangaroo and the Jacob's sheep pens. Weed overgrowth is a potential source of harborage for insects and other pests, and may negatively impact the enclosed animals. The facility must maintain the premises and keep weeds and other vegetation under control.

Correct by 16 August 2014

Inspection and exit interview conducted with facility representative

Prepared By:

DEBBIE CUNNINGHAM, V M O

Title:

DEBBIE CUNNINGHAM, VMO USDA, APHIS, Animal Care
VETERINARY MEDICAL OFFICER Inspector 6072

Date:

Aug-14-2014

Received By:

(b)(6), (b)(7)(c)

Date:

Aug-14-2014

Title:



Inspection Report

Arbuckle Adventures L L C
Arbuckle Wilderness Park
6132 Kay Starr Trail
Davis, OK 73030

Customer ID: 324698
Certificate: 73-C-0190

Site: 002
ARBUCKLE ADVENTURES L L C

Type: ROUTINE INSPECTION
Date: Aug-14-2014

2.5 (d) REPEAT DURATION OF LICENSE AND TERMINATION OF LICENSE.

- The drive through area of the park is currently open for visitors, but is not an approved site. Site 002 (drive through site) is not a valid site and must be in complete compliance with all aspects of the Animal Welfare Act prior to being used for regulated activity.

2.40 (b) (2) REPEAT ATTENDING VETERINARIAN AND ADEQUATE VETERINARY CARE (DEALERS AND EXHIBITORS).

- The rear legs of one the oryx identified with ear tag number 79 had long hooves. This oryx was lame and rolled or swung out his left rear limb when walking. The facility representative stated that a veterinarian had seen the hooves on 19 June 2014 and recommended a hoof trim. The attending veterinarian had not been consulted nor had any treatment been provided at the time of inspection. Limb problems can be painful causing discomfort. It can affect the mobility and daily activity of the oryx. This animal must be examined by a licensed veterinarian and appropriate treatment administered. The outcome of this examination must be documented and provided to the inspector upon request.

-A female oryx was in extremely thin body condition, with clearly visible ribs, pelvis, and shoulder bones. The facility representative stated that on 19 June 2014 the herd was seen by a veterinarian. This veterinarian recommended the herd be placed on a de-worming medicated feed for 3 days. The veterinarian also stated that some of the herd may require diagnostic work up and care. The facility representative has not had the herd and in particular this animal re-evaluated, despite the oryx's condition failing to improve after the initial medicated feed. A thin animal with poor body condition may have an underlying health problem preventing proper weight gain. The licensee shall obtain a diagnosis, appropriate treatment to address the thin body condition and a plan for follow-up to ensure this animal's condition is resolved.

The licensee shall establish and maintain programs of adequate veterinary care that include the use of appropriate methods to prevent, control, diagnose, and treat diseases and injuries. The licensee must ensure that all animals receive adequate veterinary care at all times.

Prepared By:

DEBBIE CUNNINGHAM, V M O

DEBBIE CUNNINGHAM, VMO USDA, APHIS, Animal Care

Title:

VETERINARY MEDICAL OFFICER Inspector 6072

Date:

Aug-21-2014

Received By:

(b)(6), (b)(7)(c)

Date:

Aug-21-2014

Title:



Inspection Report

3.131 (d)

SANITATION.

- Numerous wasps were observed on the pipe supports in the hyena enclosure directly over the water receptacle as well as flying in and around the enclosure. Wasps were also observed perching on a water receptacle in the hyena enclosure. Wasps can sting and cause injury to the enclosed animal. They can also contaminate food/water and living areas.

- Numerous mats of spiders were present on the entry wall to the indoor portion of the tiger enclosure. Spiders can bite and cause injury to the enclosed animal. They can also contaminate food, water, and living areas.

A more effective method of pest control needs to be established and maintained.

Corrected by: 25 August 2014

Inspection and exit interview conducted with facility representative.

Prepared By:

DEBBIE CUNNINGHAM, V M O

DEBBIE CUNNINGHAM, VMO USDA, APHIS, Animal Care

Title:

VETERINARY MEDICAL OFFICER Inspector 6072

Date:

Aug-21-2014

Received By:

(b)(6), (b)(7)(c)

Date:

Aug 21-2014

Title:



Inspection Report

Arbuckle Adventures L.L.C.
Arbuckle Wilderness Park
6132 Kay Starr Trail
Davis, OK 73030

Customer ID: 324698
Certificate: 73-C-0190
Site: 001
Arbuckle Adventures

Type: ROUTINE INSPECTION
Date: Aug 14-2014

This is a focused inspection on the non-compliant direct item on 14 August 2014. The wires at the three shelter entrances to food and water have been removed.

Inspection and exit interview conducted with facility representative.

Prepared By:

DEBBIE CUNNINGHAM, V M O

DEBBIE CUNNINGHAM, VMO USDA, APHIS, Animal Care

Title:

VETERINARY MEDICAL OFFICER Inspector 6072

Date:

Aug-22-2014

Received By:

(b)(6), (b)(7)(c)

Date:

Aug 22-2014

Title:



Inspection Report

Arbuckle Adventures L.L.C.
Arbuckle Wilderness Park
6132 Kay Starr Trail
Davis, OK 73030

Customer ID: 324698
Certificate: 73-C-0190

Site: 002
ARBUCKLE ADVENTURES L.L.C.

Type: ROUTINE INSPECTION
Date: Oct-23-2014

2.5 (d) REPEAT DURATION OF LICENSE AND TERMINATION OF LICENSE.

- The drive through area of the park is currently open for visitors, but is not an approved site. Site 002 (drive through site) is not a valid site and must be in complete compliance with all aspects of the Animal Welfare Act prior to being used for regulated activity.

2.126 (a) (2) REPEAT ACCESS AND INSPECTION OF RECORDS AND PROPERTY; SUBMISSION OF ITINERARIES.

- At the time of inspection the animal inventory was not up to date (inventory on hand was dated May 20, 2014) and the licensee was not able to provide an accurate animal inventory. There were no Jacob sheep present on the inventory and four Jacob sheep were present in the park. Complete and accurate records are necessary to ensure each animal's identity can be known with certainty and to facilitate the ability to trace those animals. The licensee must maintain complete and accurate records of all animals at all times and must ensure those records are available to the inspector upon request.

2.131 (a) REPEAT HANDLING OF ANIMALS.

- The information for "Handling Dangerous Animals" has not been completed and sent to the regional office. The qualifications of the employees and addressing the other issues listed on the form are of utmost importance. The drive through section of the park contains potentially dangerous animals, such as a rhinoceros and a tiger, which were not on the original license. Individuals lacking knowledge and experience with dangerous animals might negatively impact the health and welfare of the animal through improper husbandry. The licensee must provide the regional office written documentation regarding the experience and knowledge of the individuals who handle these animals. This information must be submitted and approved by the Western Regional Office before this site can be approved for regulated activity.

Prepared By:

DEBBIE CUNNINGHAM, V M O

DEBBIE CUNNINGHAM, VMO USDA, APHIS, Animal Care

Title:

VETERINARY MEDICAL OFFICER Inspector 6072

Date:

Oct-29-2014

Received By:

(b)(6), (b)(7)(c)

Date:

Oct-30-2014

Title:



Inspection Report

with a thick film of green material on the surface. The presence of standing water in or near animal enclosures increases exposure to insects and risk of contamination to the animals. The licensee must provide a suitable sanitary method to prevent or rapidly remove pools of water from the enclosure. The chosen method shall comply with applicable Federal, State and local laws and regulations relating to pollution control or the protection of the environment.

To be corrected by 20 November 2014

3.129 (a)

FEEDING.

- At the time of the inspection the daily feeding records from September 2, 2014 to October 1, 2014 for the tiger over the last month indicate that the only food she had received was 10 pounds of chicken every day. There were no fast days or supplements administered according to the daily feeding records. The facility representative stated that the tiger was not doing well the week prior and the AV came out and gave her an injection of a B vitamin and she was much improved. The facility representative stated that they give the tiger beef once a week however, the records do not indicate any beef had been given over the last month. Historically, the only food present for the tiger at the time of inspections has been chicken parts primarily chicken quarters. The licensee was not able to present any written documentation for the recommend tiger diet from a licensed veterinarian. The food must be of sufficient nutritive value and quality to maintain the animal in good health. The licensee must follow the AV guidelines on a balanced diet.

To be corrected by 29 October 2014

3.130

REPEAT

WATERING.

- The enclosure housing the hyena had a single water receptacle. The container had a moderate amount of greenish colored material concentrated on the sides and bottom of the container. The facility representative stated that the water bin was cleaned that morning. Brush marks were noted scattered in the greenish material.

- At the time of the inspection there were scattered watering containers in the drive through portion of the park. Some in the front part just past the cattle guard and some in the Serengeti area. One water container in the front just past the cattle guard and two in the Serengeti area (one with the zebras and one by the Rhinoceros) had moderate amount of greenish colored material concentrated on the sides and bottom of the container. Brush marks were noted scattered in the greenish material. The facility representative stated that the water bin was cleaned that morning. Water receptacles must be clean and contain potable water for the health and well-being of the enclosed animals. More frequent cleaning and sanitizing is needed.

Prepared By:

DEBBIE CUNNINGHAM, V M O

DEBBIE CUNNINGHAM, VMO USDA, APHIS, Animal Care

Title:

VETERINARY MEDICAL OFFICER Inspector 6072

Date:

Oct-29-2014

Received By:

(b)(6), (b)(7)(c)

Date:

Oct-30-2014

Title:



Inspection Report

3.131 (c)

SANITATION.

- At the time of the inspection there were numerous areas throughout the drive through portion of the park that had construction debris (by the medical barn), metal straps (by medical barn), old thrown horse shoes with nails present (zebra enclosure), and loose wires present. These objects pose a risk of injury to the animals in these areas of the park. All debris, metal objects, and wire must be removed and cleared as necessary to protect the health of the animals.

To be corrected by 20 November 2014.

3.131 (d)

REPEAT

SANITATION.

- At the time of the inspection numerous wasp nests, several of which were active, were observed in shelters throughout the Serengeti area. The zebra shelter had four wasp nests of which one was active. Wasps can sting and cause injury to the enclosed animal. They can also contaminate food, water and living areas. A more effective method of pest control needs to be established and maintained.

3.132

EMPLOYEES.

- At the time of the inspection there were not a sufficient number of trained employees to maintain the professionally acceptable level of husbandry practices set in the AWA. The facility representative stated they did not have enough employees at present time and were advertising and working on hiring more employees. Adequate number of trained employees must be maintained at all times to properly care for the animals present.

To be corrected by November 15, 2014

Inspection and exit interview conducted with facility representative.

Prepared By:

DEBBIE CUNNINGHAM, V M O

DEBBIE CUNNINGHAM, VMO USDA, APHIS, Animal Care

Title:

VETERINARY MEDICAL OFFICER Inspector 6072

Date:

Oct-29-2014

Received By:

(b)(6), (b)(7)(c)

Date:

Oct-30-2014

Title:



Inspection Report

Arbuckle Adventures L L C
Arbuckle Wilderness Park
6132 Kay Starr Trail
Davis, OK 73030

Customer ID: 324698
Certificate: 73-C-0190
Site: 001
Arbuckle Adventures

Type: ROUTINE INSPECTION
Date: Oct-23-2014

2.126 (a) (2) REPEAT

ACCESS AND INSPECTION OF RECORDS AND PROPERTY; SUBMISSION OF ITINERARIES.

- At the time of inspection the animal inventory was not up to date (inventory on hand was dated May 20, 2014) and the licensee was not able to provide an accurate animal inventory. There were no Jacob sheep present on the inventory list and four Jacob sheep were present in the park. Complete and accurate records are necessary to ensure each animal's identity can be known with certainty and to facilitate the ability to trace those animals. The licensee must maintain complete and accurate records of all animals at all times and must ensure those records are available to the inspector upon request.

3.80 (a) (2) (i)

PRIMARY ENCLOSURES.

- At the time of the inspection the enclosure housing the lemurs had numerous sharp points on the climbing enrichment present in the enclosure. The sharp points consisted of loops of wire that had loosened over time and had exposed sharp ends. These areas of loose wire with exposed sharp points are a potential source of injury to the enclosed animals. These sharp points must be removed or repaired. All enclosures must be kept in good repair and protect the animals from injury.

To be corrected by: 3 November 2014

3.125 (a) REPEAT

FACILITIES, GENERAL.

- At the time of inspection four Jacob sheep being kept in an outdoor enclosure in the walk-through area of the park had access to multiple areas of unsafe fencing with numerous exposed sharp points. There is also a small storage space in the enclosure with an unsecured door that is off its hinges and has many sharp points exposed to the animals. The sharp points consist of exposed nails, rebar, and wire. These areas of fencing and the unsecure door are a potential source of injury to the enclosed animals. This fencing must be removed or repaired. All enclosures must be kept in good repair and protect the animals from injury.

Prepared By:

DEBBIE CUNNINGHAM, V M O

DEBBIE CUNNINGHAM, VMO USDA, APHIS, Animal Care

Title:

VETERINARY MEDICAL OFFICER Inspector 6072

Date:

Oct-29-2014

Received By:

(b)(6), (b)(7)(c)

Date:

Oct-29-2014

Title:



Inspection Report

Inspection and exit interview conducted with facility representative.

Prepared By:

DEBBIE CUNNINGHAM, V M O

Title:

DEBBIE CUNNINGHAM, VMO - USDA, APHIS, Animal Care
VETERINARY MEDICAL OFFICER/Inspector 6072

Date:

Oct-29-2014

Received By:

(b)(6), (b)(7)(c)

Date:

Oct-29-2014

Title:



Inspection Report

Arbuckle Adventures L L C
Arbuckle Wilderness Park
6132 Kay Starr Trail
Davis, OK 73030

Customer ID: 324698
Certificate: 73-C-0190

Site: 002
ARBUCKLE ADVENTURES, L L C

Type: ROUTINE INSPECTION
Date: Feb-09-2015

2.5 (d) REPEAT DURATION OF LICENSE AND TERMINATION OF LICENSE.

- The drive through area of the park is currently open for visitors, but is not an approved site. Site 002 (drive through site) is not a valid site and must be in complete compliance with all aspects of the Animal Welfare Act prior to being used for regulated activity.

2.40 (b) (2) REPEAT DIRECT NCI ATTENDING VETERINARIAN AND ADEQUATE VETERINARY CARE (DEALERS AND EXHIBITORS).

- The male rhinoceros "Tank" was visibly thin and lethargic during the inspection. He appeared to have lost muscle on his sides and hindquarters, and had loose skin rolls on both flanks. Tank had a clear sticky discharge from both nostrils. His barn was filled with abnormally soft stool, which caretakers stated had been occurring for approximately two weeks. There was no knowledge of when Tank had last been evaluated by the attending veterinarian. There was no feed, including hay, present anywhere in the enclosure and the pasture has little to no grass other than dry weeds.

Tank's current physical condition is considered to be an emergency, and requires immediate assessment and correction. At a minimum, Tank must have free access to good quality hay at all times. He must also be assessed by the attending veterinarian within 24 hours, and any veterinary recommendations followed strictly. Tank must be rechecked as often as the attending veterinarian deems necessary, but not less than weekly until his body condition has improved.

- During the drive through inspection, a black male llama (approximately two months of age) was noted off the side of the road in sternal recumbency. The animal did not respond to auditory stimulus, and was approached on foot by inspectors and facility personnel. The llama appeared barely conscious, and his attempts to stand were weak and spastic. Physical palpation of the animal showed him to be in very poor body condition, extremely thin with muscle wasting and little to no body fat. The upper palate was tinged blue, and the saliva thick and ropey. The inspection was immediately stopped and facility personnel directed to contact the attending veterinarian for emergency care. While the veterinarian was en route, the animal was offered food and water but did not or could not respond. With the attending veterinarian on the way, employees moved the llama to the medical barn. One employee stayed with the animal while the other employee rejoined inspectors to continue the inspection. Upon the attending veterinarian's arrival, the inspectors and accompanying attendant went to the medical barn to observe treatment efforts.

Prepared By:

DEBBIE CUNNINGHAM, V M O

DEBBIE CUNNINGHAM, V M O USDA, APHIS, Animal Care

Title:

VETERINARY MEDICAL OFFICER Inspector 6072

Date:

Feb-12-2015

Received By:

(b)(6), (b)(7)(c)

Date:

Feb-13-2015



Inspection Report

Unfortunately, the llama had died before the veterinarian arrived on the premises. A field necropsy was immediately conducted by the attending veterinarian. Her initial impressions were that internal organs appeared relatively normal, but the animal was very thin and muscle wasted. She believed the animal likely had a heavy internal parasite load, and suspected the llama had entered a "negative energy balance" which it could not recover from. She estimated the llama to be approximately two months old. Samples were submitted for histopathology and fecal analysis, and results are pending.

2.40

(b) (3)

DIRECT NCI

ATTENDING VETERINARIAN AND ADEQUATE VETERINARY CARE (DEALERS AND EXHIBITORS).

- Numerous animals throughout the park are thin and in poor body condition. There is no indication in records that anyone in the park has noticed any problems with thin animals in the preceding weeks. It was clear that no employees had noticed any problems with this young llama prior to finding him on the inspection. Young, small animals as well as thin animals are extremely susceptible to environmental stresses, parasite loads, and other dangers. A young animal in poor body condition is in a gravely dangerous situation, and any amount of stress can quickly overload a weakened animal. The animal caretakers were aware that there is a natural "hierarchy" among the various species in the park which determines access to available food. Young animals in general, and especially members of a less dominant species, will often have difficulty eating especially when food supplies are limited (such as during the winter). Employees must be aware and diligent in finding and observing younger animals to ensure they are eating sufficient amounts of wholesome food to maintain body fat and muscle. The facility clearly failed to properly observe, evaluate, and care for the llama which died on the inspection date. Greater care must be taken with all park animals, and especially younger and more vulnerable animals. Body condition must be evaluated constantly for all animals in the facility. When possible, animals that will permit themselves to be touched should have their body condition assessed by physical palpation, as observation through thick wool or hair coats can be difficult. The facility must also give more consideration to methods of feeding, and must consider methods of feeding that will ensure smaller, weaker animals are able to reach food without being pushed away by larger, stronger animals.

Correct by: 13 February 2015

2.131

(a)

REPEAT

HANDLING OF ANIMALS.

- The information for "Handling Dangerous Animals" has not been completed and sent to the regional office. The qualifications of the employees and addressing the other issues listed on the form are of utmost importance. The drive through section of the park contains potentially dangerous animals, such as a rhinoceros and a tiger, which were not on the original license. Individuals lacking knowledge and experience with dangerous animals might negatively impact the health and welfare of the animal through improper husbandry. The licensee must provide the regional office written documentation regarding the experience and knowledge of the individuals who handle these animals. This information must be submitted and approved by the Western Regional Office before this site can be approved for regulated activity.

Prepared By:

DEBBIE CUNNINGHAM, V M O

Title:

DEBBIE CUNNINGHAM, V M O USDA, APHIS, Animal Care
VETERINARY MEDICAL OFFICER Inspector 6072

Date:

Feb-12-2015

Received By:

(b)(6), (b)(7)(c)

Date:

Feb-13-2015



Inspection Report

Arbuckle Adventures L L C
Arbuckle Wilderness Park
6132 Kay Starr Trail
Davis, OK 73030

Customer ID: 324698
Certificate: 73-C-0190
Site: 001
Arbuckle Adventures

Type: ROUTINE INSPECTION
Date: Feb-09-2015

2.126 (a) (2) REPEAT

ACCESS AND INSPECTION OF RECORDS AND PROPERTY; SUBMISSION OF ITINERARIES.

- At the time of inspection the animal inventory was not up to date (inventory on hand was dated December 30, 2014) and the licensee was not able to provide an accurate animal inventory. There were no Jacob sheep present on the inventory list and four Jacob sheep were present in the park. Complete and accurate records are necessary to ensure each animal's identity can be known with certainty and to facilitate the ability to trace those animals. The licensee must maintain complete and accurate records of all animals at all times and must ensure those records are available to the inspector upon request.

3.80 (a) (2) (i) REPEAT

PRIMARY ENCLOSURES.

- The lemurs are currently being housed inside a temporary cage, contained inside a building in the walk through area of the park. A door had been created in this cage by cutting a square section out of the bars, then wiring a small metal door in place of the opening. This had left numerous sharp points above and below this door where the cage bars were cut. This is a risk of injury to the enclosed primates. These sharp points must be removed or repaired. All enclosures must be kept in good repair and protect the animals from injury.

3.80 (a) (2) (ii)

PRIMARY ENCLOSURES.

- The lemurs are currently being kept indoors in a temporary cage inside a building in the walk through area of the park. The cage is close to the adjoining walls, and on these walls are least four exposed electrical outlets which are within easy reach of the enclosed primates. There is also a powered electrical cord on the floor just in front of the cage, also within easy reach of the animals. This is a clear risk of danger to the animals. The cord must be relocated out of reach, and all outlets must be covered so that they no longer pose a risk of injury to the primates.

Correct by: 13 February 2015

Prepared By:

DEBBIE CUNNINGHAM, V M O

DEBBIE CUNNINGHAM, V M O USDA, APHIS, Animal Care

Title:

VETERINARY MEDICAL OFFICER/Inspector 6072

Date:

Feb-12-2015

Received By:

(b)(6), (b)(7)(c)

Date:

Feb-13-2015



Inspection Report

Arbuckle Adventures L.L.C.
Arbuckle Wilderness Park
6132 Kay Starr Trail
Davis, OK 73030

Customer ID: **324698**

Certificate: **73-C-0190**

Site: 002

ARBUCKLE ADVENTURES L.L.C.

Type: ROUTINE INSPECTION

Date: Feb-13-2015

This is a focused inspection on the direct non compliance items on the February 9 and 10 2015 inspection. All direct non compliance items have been addressed.

Inspection and exit interview conducted with facility representative.

Prepared By:

DEBBIE CUNNINGHAM, V M O

DEBBIE CUNNINGHAM, V M O USDA, APHIS, Animal Care

Title:

VETERINARY MEDICAL OFFICER Inspector 6072

Date:

Feb-17-2015

Received By:

(b)(6), (b)(7)(c)

Date:

Feb-17-2015

Title:



Inspection Report

Arbuckle Adventures L.L.C.
Arbuckle Wilderness Park
6132 Kay Starr Trail
Davis, OK 73030

Customer ID: **324698**

Certificate **73-C-0190**

Site: 002

ARBUCKLE ADVENTURES L.L.C.

Type: ROUTINE INSPECTION

Date: Feb-19-2015

This is a focused inspection on the feeding program implemented by the Attending Veterinarian for the park on 13 February 2015, as well as an update on the medical condition of their animals including Tank and the cleanliness of his barn.

Focused inspection and exit interview conducted with facility representative.

Prepared By:

DEBBIE CUNNINGHAM, V M O

DEBBIE CUNNINGHAM, V M O USDA, APHIS, Animal Care

Title:

VETERINARY MEDICAL OFFICER Inspector 6072

Date:

Feb-20-2015

Received By:

(b)(6), (b)(7)(c)

Date:

Feb-20-2015

Title:



Inspection Report

Arbuckle Adventures L L C
Arbuckle Wilderness Park
6132 Kay Starr Trail
Davis, OK 73030

Customer ID: 324698
Certificate: 73-C-0190

Site: 002
ARBUCKLE ADVENTURES, L L C

Type: ROUTINE INSPECTION
Date: May-07-2015

2.5 (d) REPEAT DURATION OF LICENSE AND TERMINATION OF LICENSE.

- The drive through area of the park is currently open for visitors, but is not an approved site. Site 002 (drive through site) is not a valid site and must be in complete compliance with all aspects of the Animal Welfare Act prior to being used for regulated activity.

2.131 (a) REPEAT HANDLING OF ANIMALS.

- The information for "Handling Dangerous Animals" has not been completed and sent to the regional office. The qualifications of the employees and addressing the other issues listed on the form are of utmost importance. The drive through section of the park contains potentially dangerous animals, such as a rhinoceros and a tiger, which were not on the original license. Individuals lacking knowledge and experience with dangerous animals might negatively impact the health and welfare of the animal through improper husbandry. The licensee must provide the regional office written documentation regarding the experience and knowledge of the individuals who handle these animals. This information must be submitted and approved by the Western Regional Office before this site can be approved for regulated activity.

2.131 (d) (2) REPEAT HANDLING OF ANIMALS.

- At the time of inspection the drive through area of the park had members of the public driving their cars through and feeding animal feed from paper Pepsi cups that are available for purchase at the gift shop. There were no park employees present during this public/ animal interaction. Empty Pepsi cups were noted scattered on the ground throughout the park.

A responsible, knowledgeable, and readily identifiable employee or attendant must be present at all times during periods of public contact.

Prepared By:

DEBBIE CUNNINGHAM, V M O

DEBBIE CUNNINGHAM, V M O USDA, APHIS, Animal Care

Title: VETERINARY MEDICAL OFFICER Inspector 6072

Date:

May-11-2015

Received By:

(b)(6), (b)(7)(c)

Date:

May-11-2015

Title:



Inspection Report

3.125

(a)

REPEAT

FACILITIES, GENERAL.

- The border fence for the drive through area is leaning sharply in several areas. Fencing in this condition is not secure, nor is it safe for the enclosed animals.
- The low shelters in front of the rhino barn have several areas where the tin roof is peeling up, leaving exposed edges and providing insufficient protection to any animals within the shelter. There are also short t-posts being used to help brace the shelter. These posts extend approximately a foot out of the ground and are a potential source of injury to the animals. The roof needs to be repaired, and the t-posts removed or secured.
- In the giraffe enclosure fencing a top metal post is disconnected at one end and leaning sharply. This is not a secure fence, and could potentially allow injury to the enclosed animal.
- In the tiger enclosure fence there are two areas of concern. In one section of fence, there is a gap at the top between the straight fence and the angled kick-in. In a separate area, there is a large hole in the ground on the outside of the fence where the ground appears to have eroded. This hole is extending beneath the concrete and toward the fence itself. These areas need to be repaired to ensure the tiger is securely contained.

3.127

(d)

REPEAT

FACILITIES, OUTDOOR.

- The east side of the giraffe enclosure did not have any perimeter fencing or barrier outside of the enclosure fence itself. There is a house and other buildings in this area, very close to the giraffe enclosure. The facility representative was asked if that was their property. The representative stated it was not their property and the house behind the giraffe enclosure was being remodeled by the current owner. Private vehicles were noted in this area during the inspection. Without a proper perimeter fence, unauthorized members of the public could freely reach the giraffe enclosure fencing. A perimeter fence must be constructed here and kept intact, both to prevent unauthorized access and to serve as a secondary containment for the animals.

Prepared By:

DEBBIE CUNNINGHAM, V M O

Title:

DEBBIE CUNNINGHAM, V M O USDA, APHIS, Animal Care
VETERINARY MEDICAL OFFICER/Inspector 6072

Date:

May-11-2015

Received By:

(b)(6), (b)(7)(C)

Date:

May-11-2015



Inspection Report

3.129

FEEDING.

There are numerous problems in the food storage and preparation area located inside the gift shop.

- In two different locations, open bags of feed are being kept on the ground next to containers of chemicals. Open bags of feed must be placed into containers with lids to help protect from contamination.
- A refrigerator and a meat freezer were dirty and stained with dried puddles of fluid. The refrigerator contained a box of lettuce which was in poor condition. Refrigerators and freezers must be kept clean and sanitary.

There are also multiple problems in the food storage barn in the walk through area.

- Several open bags of feed were found inside the feed storage area. The floor of the storage barn was damp, which indicates that the stored feed is being exposed to excessive moisture and therefore must be protected with properly sealed containers.
 - There is a large amount of debris, empty boxes, and construction material scattered around the outside of the food storage barn. This provides harborage for pests, insects, and rodents. This material should be cleaned up and properly disposed.
 - Alfalfa hay is being stored in the large barn next to the small food storage area. There were two bales present, and both were wet in multiple areas. The barn is full of tools, vehicles, and other items. This is not a proper storage area for feed. The hay must be relocated to a proper food storage area.
- Food must be kept properly stored, and food preparation areas must be kept clean and sanitized to ensure healthy, safe food is delivered to the animals.

3.130

REPEAT

WATERING.

- Multiple watering containers in the drive through portion of the park had a moderate amount of greenish colored debris concentrated on the sides and bottom of the container. This is an indication that these containers are not being cleaned frequently enough. Water receptacles must be clean and contain potable water for the health and well-being of the enclosed animals. More frequent cleaning and sanitizing is needed.

3.131

(d)

REPEAT

SANITATION.

- Numerous mats of spiders were present on the entry wall to the indoor portion of the tiger enclosure as well as in the fence posts on the indoor portion of the enclosure. Spiders can bite and cause injury to the enclosed animal. They can also contaminate food, water, and living areas. A more effective method of pest control needs to be established and maintained.

Prepared By:

DEBBIE CUNNINGHAM, V M O

Title:

DEBBIE CUNNINGHAM, V M O USDA, APHIS, Animal Care
VETERINARY MEDICAL OFFICER/Inspector 6072

Date:

May-11-2015

Received By:

(b)(6), (b)(7)(C)

Date:

May-11-2015



Inspection Report

3.132

REPEAT

EMPLOYEES.

The USDA APHIS officials had to wait for 45 minutes to an hour for one of the two park employees to get back from the bus tour with school children before the inspection could begin. At the time of the inspection there were three park employees present. None of these employees knew how much food, what type of food, or feeding schedules for the park animals. The feeding protocol created by the AV in February 2015 was not being followed and none of these employees were aware of the feeding protocol. There was also a great deal of confusion about responsibilities, cleaning schedules, and general husbandry. This is not a sufficient number of trained employees to maintain the professionally acceptable level of husbandry practices set in the AWA. Adequate numbers of trained employees must be maintained at all times to properly care for the animals present.

Inspection and exit interview conducted with facility representative and APHIS officials.

Prepared By:

DEBBIE CUNNINGHAM, V M O

Title:

DEBBIE CUNNINGHAM, V M O USDA, APHIS, Animal Care
VETERINARY MEDICAL OFFICER/Inspector 6072

Date:

May-11-2015

Received By:

(b)(6), (b)(7)(C)

Date:

May-11-2015



Inspection Report

Arbuckle Adventures L L C
Arbuckle Wilderness Park
6132 Kay Starr Trail
Davis, OK 73030

Customer ID: 324698
Certificate: 73-C-0190
Site: 001
Arbuckle Adventures

Type: ROUTINE INSPECTION
Date: May-07-2015

2.75 (b) (2) REPEAT

RECORDS: DEALERS AND EXHIBITORS.

- At the time of inspection the animal inventory was not up to date (inventory on hand was dated December 30, 2014) and the licensee was not able to provide an accurate animal inventory. There were no Jacob sheep present on the inventory list and five Jacob sheep were present in the park. There was a red kangaroo and 2 porcupines also present that were not on the inventory. Accurate records are necessary to ensure each animal's identity can be known with certainty and to facilitate the ability to trace those animals. The licensee must maintain complete and accurate records of all animals at all times and must ensure those records are available to the inspector upon request.

3.81 (b) REPEAT

ENVIRONMENT ENHANCEMENT TO PROMOTE PSYCHOLOGICAL WELL-BEING.

- The lemurs are currently being kept in an outdoor enclosure in the walk through area of the park. There were no enrichment items present in the enclosure. The facility employee stated that enrichment currently consisted of food items. All nonhuman primates require adequate environmental enrichment. This can consist of a variety of items and interactions. An adequate written enrichment plan developed with approval of the attending veterinarian must be used for these animals.

3.82 REPEAT

FEEDING.

There are numerous problems in the food storage and preparation area located inside the gift shop.

- A refrigerator was dirty and stained with dried puddles of fluid. The refrigerator contained a box of lettuce which was in poor condition. Refrigerators must be kept clean and sanitary.

- There was a box on the floor of the food prep area with a dark fluid leaking out onto the floor itself. This area must be kept clean, and boxes of food cannot be left on the floor.

- A plastic cutting board used for food prep was dirty and stained, and had numerous scratches in the surface. Cutting boards must be kept clean and sanitized. When a cutting board is heavily scarred it becomes difficult to clean adequately, and should be smoothed or replaced.

Prepared By:

DEBBIE CUNNINGHAM, V M O

DEBBIE CUNNINGHAM, V M O USDA, APHIS, Animal Care

Title:

VETERINARY MEDICAL OFFICER Inspector 6072

Date:

May-11-2015

Received By:

(b)(6), (b)(7)(c)

Date:

May-11-2015

Title:



Inspection Report

Food must be kept properly stored, and food preparation areas must be kept clean and sanitized to ensure healthy, safe food is delivered to the animals.

3.125 (a) REPEAT
FACILITIES, GENERAL.

- The enclosure housing the kangaroo in the walk through park has a large rusted hole in a cross bar beneath the door frame. This is a potential source of injury to the enclosed animal, and could affect the structural strength of the enclosure cage if the rusted area continues to spread. This area must be repaired, and properly maintained to ensure the safety and security of the enclosed animal.

3.127 (b)
FACILITIES, OUTDOOR.

- A young red kangaroo is being housed in the walk through area of the park. The animal is in an outdoor enclosure, and does not have access to an interior structure. There is no shelter within the enclosure, only a pile of bedding beneath a heat lamp. Without a shelter, the kangaroo is exposed to wind, rain, and other weather effects. All animals must have a shelter to help protect them from inclement weather.
Correct by: Immediately

3.129 (a)
FEEDING.

There are numerous problems in the food storage and preparation area located inside the gift shop.

- In two different locations, open bags of feed are being kept on the ground next to containers of chemicals. Open bags of feed must be placed into containers with lids to help protect from contamination.
- A refrigerator and a meat freezer were dirty and stained with dried puddles of fluid. The refrigerator contained a box of lettuce which was in poor condition. Refrigerators and freezers must be kept clean and sanitary.
- There was a box on the floor of the food prep area with a dark fluid leaking out onto the floor itself. This area must be kept clean, and boxes of food cannot be left on the floor.
- A plastic cutting board used for food prep was dirty and stained, and had numerous scratches in the surface. Cutting boards must be kept clean and sanitized. When a cutting board is heavily scarred it becomes difficult to clean adequately, and should be smoothed or replaced.

There are also multiple problems in the food storage barn in the walk through area.

- Several open bags of feed were found inside the feed storage area. The floor of the storage barn was damp, which indicates that the stored feed is being exposed to excessive moisture and therefore must be protected with properly sealed containers.

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Title:

VETERINARY MEDICAL OFFICER Inspector 6072

Date:

May-11-2015

Received By:

(b)(6), (b)(7)(C)

Date:

May-11-2015

Title:

Inspection Report

Inspection and exit interview conducted with facility representative

Prepared By:

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Date: _____

May 11, 2015

Received By:

(b)(6), (b)(7)(c)

Date:

May-11-2015

Title:

Inspection Report

Arbuckle Adventures L L C
Arbuckle Wilderness Park
6132 Kay Starr Trail
Davis, OK 73030

Customer ID: 324698
Certificate: 73-C-0190
Site: 001
Arturo Alvarez

Type: ROUTINE INSPECTION
Date: Jul-26-2015

3.125 (a) REPEAT

FACILITIES, GENERAL

- The enclosure housing the Jacobs sheep has multiple areas which are unsafe. The enclosure fence has a large hole near the gate, apparently caused by the animals stretching the wires. This is an entrapment risk, and must be corrected. The shelter has several gaps, which also contain sharp points or loops of wire. These areas are a potential source of entrapment or injury to the contained animals. All sharp points and loose wires must be eliminated, and all gaps repaired to minimize the risk of injury to the animals.

3.125 (c) REPEAT

FACILITIES, GENERAL

- The feed shed was dirty with an accumulation of spilled feed and other debris between the pallets and the walls. This area needs to be swept and cleaned on a more frequent basis.

There is a bale of hay being stored on concrete blocks in the maintenance shed. The shed is not an appropriate area for food storage, since it is filled with machinery, chemicals, and various other materials. In addition, the bale of hay has a large spoiled, discolored area in one corner. Spoiled hay is not an appropriate animal feed.

The facility must ensure that feed is properly stored in order to protect it from contamination. Food storage areas must be kept in good condition, and cleaned as frequently as necessary to ensure good quality feed is given to the animals.

3.127 (C)

FACILITIES, OUTDOOR.

- The outdoor enclosure housing a young red kangaroo has a floor that slopes down in the middle, with a drain located at the bottom of the slope. This drain had no cover, leaving an open hole in the middle of the floor. This is a potential source of injury to the enclosed animal. The facility must place an

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MICHAEL TYGART, D.V.M.

MICHAEL TYGART, D.V.M. USDA, APHIS, Animal Care

Date: Jul-29-2015

Title: VETERINARY MEDICAL OFFICER Inspector 6009

Received By:

(b)(6), (b)(7)(c)

Date: Jul-30-2015

Title:



Inspection Report

appropriate drain cover in this location.
Correct by: 30 July 2015

3.129 (a) **REPEAT**

FEEDING.

- There was no hay present in the Jacob's sheep enclosure. Employees were unclear about when the animals were last given hay, and how much hay they are actually receiving. In the past, the facility was directed to ensure that all grazing animals had access to clean hay at all times. The Jacob's sheep have heavy wool coats, making it difficult to assess body condition without actually capturing the animals. In order to help ensure they are getting enough feed, these animals must be provided access to free choice hay at all times. The facility must consult their attending veterinarian to ensure that the correct type of hay is being given to the animals. There is a written feeding plan provided by the facility attending veterinarian. If the facility chooses to deviate from this written plan, it must be approved in writing by the attending veterinarian.

3.130

WATERING.

- The water receptacle for the Jacobs sheep was extremely dirty. The water was so cloudy inspectors were not able to see the bottom or sides of the receptacle. Animals must have access to clean potable water at all times, but particularly during the hot summer months. Dirty water receptacles increase the contamination of the animals, and may lead to illness or other negative health effects. The facility must clean the water receptacles as often as needed to keep them clean and protect the health of the enclosed animals.

Corrected on the spot.

Inspection and exit interview conducted by Michael Tygart (VMO) and Cathy Niebruegge (ACI) with facility representatives.

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(b)(6), (b)(7)(c)

Date:

Jul-30-2015



Inspection Report

Arbuckle Adventures L.L.C.
Arbuckle Wilderness Park
6132 Kay Starr Trail
Davis, OK 73030

Customer ID: 324698
Certificate: 73-C-0190

Site: 002
ARBUCKLE ADVENTURES L.L.C.

Type: ROUTINE INSPECTION
Date: Jul-26-2015

2.5 (d) REPEAT DURATION OF LICENSE AND TERMINATION OF LICENSE.

- The drive through area of the park is currently open for visitors, but is not an approved site. Site 002 (drive through site) is not a valid site and must be in complete compliance with all aspects of the Animal Welfare Act prior to being used for regulated activity.

2.40 (b) (2) ATTENDING VETERINARIAN AND ADEQUATE VETERINARY CARE (DEALERS AND EXHIBITORS).

- The current facility deworming practices are not adequate. In general, deworming is being performed with feed additives and mineral block additives. There is no regular frequency, and really no way to ensure that all animals in the park ingest an adequate amount of these additives by eating. Also, there is currently no real schedule or plan for testing fecal exams to assess the efficacy of the parasite controls. This has resulted in documented cases of facility animals being negatively impacted by a heavy parasite load.

Internal parasites can affect all animals, but are particularly dangerous to high risk individuals such as elderly, pregnant or sick animals.

The facility must consult their attending veterinarian and create a written plan for parasite control. This must include routine deworming schedules, routine fecal sampling, and special considerations for high risk animals. The facility must maintain a copy of this plan, and must document their efforts to comply with the plan. The plan and supporting documentation must be available for official review as needed.

Correct by: 15 August 2015

2.40 (b) (3) ATTENDING VETERINARIAN AND ADEQUATE VETERINARY CARE (DEALERS AND EXHIBITORS).

- According to veterinary records dated 23 May 2015, a female Oryx was found dead by facility personnel. The record states that the animal was pregnant and approximately 2 weeks away from delivery. When questioned about this animal, facility employees stated that no one knew the female was even pregnant.

The female is described as being in thin body condition with diarrhea stains on the hind limbs. A fecal examination revealed three types of intestinal parasites present. The veterinary record states that the female was eating lots of fresh green grass which was going right through her. The veterinarian

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Jul-31-2015

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(b)(6), (b)(7)(C)

Date:
Jul-31-2015

Title:



Inspection Report

indicates that this animal's metabolic needs along with her parasite burden required a higher carb diet. A second report dated 31 May 2015 describes the animal as carrying a tremendous worm load. The death of this animal was a management failure on several levels. There was a failure to provide proper nutrition and a parasite control failure. However, the most serious failure was that no facility employees noted the condition of this animal. Not only was her late term pregnancy missed, no one spotted her poor body condition or the presence of diarrhea stains on her legs. This Oryx was an older, thin, pregnant animal with a heavy internal parasite burden. She was in an extremely high risk situation, and would have needed dedicated attention and care to survive and carry her calf to term. The facility's failure to notice her condition put this animal in a position where she could not survive the physical demands placed on her.

Animals must be observed on a daily basis by individuals with sufficient training and knowledge to properly assess the health and condition of the animal. There must also be a mechanism of direct communication with the attending veterinarian to report any problems noted by facility personnel. The facility must take steps to ensure all animals are observed daily and assessed properly.

Correct from this point forward.

2.131 (a) REPEAT

HANDLING OF ANIMALS.

- The information for "Handling Dangerous Animals" has not been completed and sent to the regional office. The qualifications of the employees and addressing the other issues listed on the form are of utmost importance. The drive through section of the park contains potentially dangerous animals, such as a rhinoceros and a tiger, which were not on the original license. Individuals lacking knowledge and experience with dangerous animals might negatively impact the health and welfare of the animal through improper husbandry. The licensee must provide the regional office written documentation regarding the experience and knowledge of the individuals who handle these animals. This information must be submitted and approved by the Western Regional Office before this site can be approved for regulated activity.

2.131 (c) (1)

HANDLING OF ANIMALS.

- At the rhinoceros barn there is a gate near where the hay is placed. The gate was closed, but there was no lock present. This offers access to the rhinoceros and is not an adequate means of separation from the public. All gates into animal enclosures must be locked when not in use by facility personnel.

Correct from this point forward.

2.131 (d) (2) REPEAT

HANDLING OF ANIMALS.

- At the time of inspection the drive through area of the park had members of the public driving their cars through and feeding animal feed from paper Pepsi cups that are available for purchase at the gift shop. There were no park employees present during this public/ animal interaction. Empty Pepsi cups were noted scattered on the ground throughout the park.

A responsible, knowledgeable, and readily identifiable employee or attendant must be present at all times.

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Jul-31-2015

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(b)(6), (b)(7)(c)

Date:

Jul-31-2015

Title:



Inspection Report

during periods of public contact.

3.125 (a) REPEAT

FACILITIES, GENERAL.

- The border fence for the drive through area is leaning sharply in several areas. Fencing in this condition is not secure, nor is it safe for the enclosed animals.
- The low shelters in front of the rhino barn has an area on the corner where the tin roof is peeling up, leaving exposed edges and providing insufficient protection to any animals within the shelter. The roof needs to be repaired to help protect the animals.
- The indoor enclosure for the tiger has an open drain in the middle of the floor. This is a potential injury risk, and needs to have a proper drain cover in place.
- The outdoor water receptacle for the rhino has a long loose wire protruding from the nearby fence and out over the bucket. This is a potential source of injury any time the rhino attempts to drink from this bucket. The facility must secure or remove this wire.

3.127 (d) REPEAT

FACILITIES, OUTDOOR.

- The east side of the giraffe enclosure did not have any perimeter fencing or barrier outside of the enclosure fence itself. There is a house and other buildings in this area, very close to the giraffe enclosure. The facility representative stated it was not their property. Without a proper perimeter fence, unauthorized members of the public could freely reach the giraffe enclosure fencing. A perimeter fence must be constructed here and kept intact, both to prevent unauthorized access and to serve as a secondary containment for the animals.

3.129 (a)

FEEDING.

- There was no hay present in the entire Serengeti area of the drive through park. The written feeding plan from the attending veterinarian requires 6 round bales to be placed every other day, or as often as

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Jul-31-2015

Received By:

(b)(6), (b)(7)(c)

Date:
Jul-31-2015

Title:



Inspection Report

needed. On a phone call to the attending veterinarian, she confirmed that she had verbally amended the required number of round bales during the summer months. She stated that she had not given a specific number of bales that must be present. However, the facility has in the past been directed to provide, at a minimum, constant access to fresh, quality hay for all grazing animals. The complete absence of any hay is not acceptable, and is a potential risk to the health and welfare of the enclosed animals. The facility must consult the attending veterinarian to create a written amendment to the original feeding plan which specifically details the feeding requirements. The facility must, at a minimum, provide free access to good quality hay for all grazing animals throughout the park.

Correct by: Immediately

3.130

REPEAT

WATERING.

- At least two water containers in the drive through portion of the park had a heavy accumulation of dirt and debris concentrated on the sides and bottom of the container. This is an indication that these containers are not being cleaned frequently enough. Water receptacles must be clean and contain potable water for the health and well-being of the enclosed animals. More frequent cleaning and sanitizing is needed.

- The hyena enclosure has a hollow concrete stand beneath the water bowl. This hollow stand was filled with dirt, debris, and brackish water - the hyena is forced to stand in this area to reach the water bowl. Animals must have easy access to clean, fresh water at all times. This hollow concrete area must be removed or filled.

- In the rhino barn, there are several large concrete feeding tanks built into the barn. Per facility employees, these tanks are intended to be used for winter feeding only. At least two of these tanks contained dark, standing water and an accumulation of dirt and debris. If used to hold water, these tanks must be properly cleaned and sanitized as needed to keep them clean.

3.131

(d)

REPEAT

SANITATION.

- Numerous mats of spiders were present on the entry wall to the indoor portion of the tiger enclosure as well as in the fence posts on the indoor portion of the enclosure. Spiders can bite and cause injury to the enclosed animal. They can also contaminate food, water, and living areas. A more effective method of pest control needs to be established and maintained.

Inspection and exit interview conducted by Michael Tygart (VMO), Cathy Niebrugge (ACI) and facility representatives.

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Date:

Jul-31-2015

Received By:

(b)(6), (b)(7)(c)

Date:

Jul-31-2015

Inspection Report

Arbuckle Adventures L L C
Arbuckle Wilderness Park
6132 Kay Starr Trail
Davis, OK 73030

Customer ID: 324698
Certificate: 73-C-0190
Site: 001
Arturo Alvarez

Type: ROUTINE INSPECTION
Date: Jul-28-2015

3.125 (a) REPEAT

FACILITIES, GENERAL

- The enclosure housing the Jacobs sheep has multiple areas which are unsafe. The enclosure fence has a large hole near the gate, apparently caused by the animals stretching the wires. This is an entrapment risk, and must be corrected. The shelter has several gaps, which also contain sharp points or loops of wire. These areas are a potential source of entrapment or injury to the contained animals. All sharp points and loose wires must be eliminated, and all gaps repaired to minimize the risk of injury to the animals.

3.125 (c) REPEAT

FACILITIES, GENERAL

- The feed shed was dirty with an accumulation of spilled feed and other debris between the pallets and the walls. This area needs to be swept and cleaned on a more frequent basis.

There is a bale of hay being stored on concrete blocks in the maintenance shed. The shed is not an appropriate area for food storage, since it is filled with machinery, chemicals, and various other materials. In addition, the bale of hay has a large spoiled, discolored area in one corner. Spoiled hay is not an appropriate animal feed.

The facility must ensure that feed is properly stored in order to protect it from contamination. Food storage areas must be kept in good condition, and cleaned as frequently as necessary to ensure good quality feed is given to the animals.

3.127 (C)

FACILITIES, OUTDOOR.

- The outdoor enclosure housing a young red kangaroo has a floor that slopes down in the middle, with a drain located at the bottom of the slope. This drain had no cover, leaving an open hole in the middle of the floor. This is a potential source of injury to the enclosed animal. The facility must place an

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Date: Jul-29-2015

Title: VETERINARY MEDICAL OFFICER Inspector 6009

Received By:

(b)(6), (b)(7)(c)

Date: Jul-30-2015

Title:



Inspection Report

appropriate drain cover in this location.
Correct by: 30 July 2015

3.129 (a) **REPEAT**

FEEDING.

- There was no hay present in the Jacob's sheep enclosure. Employees were unclear about when the animals were last given hay, and how much hay they are actually receiving. In the past, the facility was directed to ensure that all grazing animals had access to clean hay at all times. The Jacob's sheep have heavy wool coats, making it difficult to assess body condition without actually capturing the animals. In order to help ensure they are getting enough feed, these animals must be provided access to free choice hay at all times. The facility must consult their attending veterinarian to ensure that the correct type of hay is being given to the animals. There is a written feeding plan provided by the facility attending veterinarian. If the facility chooses to deviate from this written plan, it must be approved in writing by the attending veterinarian.

3.130

WATERING.

- The water receptacle for the Jacobs sheep was extremely dirty. The water was so cloudy inspectors were not able to see the bottom or sides of the receptacle. Animals must have access to clean potable water at all times, but particularly during the hot summer months. Dirty water receptacles increase the contamination of the animals, and may lead to illness or other negative health effects. The facility must clean the water receptacles as often as needed to keep them clean and protect the health of the enclosed animals.

Corrected on the spot.

Inspection and exit interview conducted by Michael Tygart (VMO) and Cathy Niebruegge (ACI) with facility representatives.

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Date:

Jul-29-2015

Received By:

(b)(6), (b)(7)(c)

Date:

Jul-30-2015

Title:



Inspection Report

Arbuckle Adventures L.L.C.
Arbuckle Wilderness Park
6132 Kay Starr Trail
Davis, OK 73030

Customer ID: 324698
Certificate: 73-C-0190
Site: 002
ARBUCKLE ADVENTURES L.L.C.

Type: ROUTINE INSPECTION
Date: Oct-29-2015

2.5 (d) REPEAT DURATION OF LICENSE AND TERMINATION OF LICENSE.

- The drive through area of the park is currently open for visitors, but is not an approved site. Site 002 (drive through site) is not a valid site and must be in complete compliance with all aspects of the Animal Welfare Act prior to being used for regulated activity.

2.131 (a) REPEAT HANDLING OF ANIMALS.

- The information for "Handling Dangerous Animals" has not been completed and sent to the regional office. The qualifications of the employees and addressing the other issues listed on the form are of utmost importance. The drive through section of the park contains potentially dangerous animals, such as a rhinoceros and a tiger, which were not on the original license. Individuals lacking knowledge and experience with dangerous animals might negatively impact the health and welfare of the animal through improper husbandry. The licensee must provide the regional office with written documentation regarding the experience and knowledge of the individuals who handle these animals. This information must be submitted and approved by the Western Regional Office before this site can be approved for regulated activity.

2.131 (d) (2) REPEAT HANDLING OF ANIMALS.

- At the time of inspection the drive through area of the park had members of the public driving their cars through and feeding animal feed from paper Pepsi cups that are available for purchase at the gift shop. There were no park employees present during this public/animal interaction. Empty Pepsi cups were noted scattered on the ground throughout the park. A responsible, knowledgeable, and readily identifiable employee or attendant must be present at all times during periods of public contact.

Prepared By:

DEBBIE CUNNINGHAM, V M O

DEBBIE CUNNINGHAM, V M O USDA, APHIS, Animal Care

Title:

VETERINARY MEDICAL OFFICER/Inspector 6072

Date:

Nov-04-2015

Received By:

(b)(6), (b)(7)(c)

Date:

Nov-04-2015



Inspection Report

3.127 (d)

REPEAT

FACILITIES, OUTDOOR.

- The east side of the giraffe enclosure did not have any perimeter fencing or barrier outside of the enclosure fence itself. There is a house and other buildings in this area, very close to the giraffe enclosure. The facility representative stated it was not their property. Without a proper perimeter fence, unauthorized members of the public could freely reach the giraffe enclosure fencing. A perimeter fence must be constructed here and kept intact, both to prevent unauthorized access and to serve as a secondary containment for the animal.

Inspection and exit interview conducted with facility representative and two APHIS VMCs.

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DEBBIE CUNNINGHAM, V M O

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Date:

Nov-04-2015

Received By:

(b)(6), (b)(7)(c)

Date:

Nov-04-2015

Title:



Inspection Report

Arbuckle Adventures L L C
Arbuckle Wilderness Park
6132 Kay Starr Trail
Davis, OK 73030

Customer ID: 324698
Certificate 73-C-0190
Site: 001
Arbuckle Adventures

Type: ROUTINE INSPECTION
Date: Oct-29-2015

2.40 (b) (3) REPEAT

ATTENDING VETERINARIAN AND ADEQUATE VETERINARY CARE (DEALERS AND EXHIBITORS).

- According to veterinary records dated 27 May 2015, a porcupine was found dead in its enclosure by facility personnel. The record states that the animal was in a fight and killed the other porcupine in the enclosure 5 days prior. When questioned about this animal, facility employees stated that no one knew the animal was ill. The veterinary necropsy report states that the animal was off food the day before and found dead the next morning. On the necropsy report the veterinarian "opened the abdominal cavity and found a large amount of free fluid with dark blood and a rancid odor. A large section of the small intestine was a dark purple color, there was a perforated section, looked like a sharp quill or splinter penetrated the gut." The death of this animal was a management failure. There was a failure to provide a safe environment for the porcupine that was killed. However, the most serious failure was that no facility employees noted the condition of the surviving animal. The facility's failure to notice the condition put this animal in a position where he could not survive the physical demands from the injuries sustained from the fight with its enclosure mate 5 days prior. Animals must be observed on a daily basis by individuals with sufficient training and knowledge to properly assess the health and condition of the animal. There must also be a mechanism of direct communication with the attending veterinarian to report any problems noted by facility personnel. The facility must take steps to ensure all animals are observed daily and assessed properly.

3.129 (d) REPEAT

FEEDING.

- There was no hay present in the Jacob's sheep enclosure. The facility representative stated that the hay had been removed approximately two days earlier. He stated that "some" alfalfa hay had been given to the animals but there was none present at the time of the inspection. In the past, the facility was directed to ensure that all grazing animals had access to clean hay at all times. The Jacob's sheep have heavy wool coats, making it difficult to assess body condition without actually capturing the animals. In order to help ensure they are getting enough feed, these animals must be provided access to free choice hay at all times. The facility must consult their attending veterinarian to ensure that the correct type of hay is being given to the animals. There is a written feeding plan provided by the facility's attending veterinarian. If

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Date:

Nov-04-2015

Received By:

(b)(6), (b)(7)(c)

Title:

Date:

Nov-04-2015

Inspection Report

the facility chooses to deviate from this written plan, it must be approved in writing by the attending veterinarian.

Inspection and exit interview conducted with facility representative and two APHIS VMOs.

Prepared By:

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Title:

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Date:

Nov-04-2015

Received By:

(b)(6), (b)(7)(c)

Date: _____

Nov-04-2015

Title:



Inspection Report

Arbuckle Adventures L L C
Arbuckle Wilderness Park
6132 Kay Starr Trail
Davis, OK 73030

Customer ID: 324698
Certificate 73-C-0190

Site: 002
ARBUCKLE ADVENTURES, L L C

Type: ROUTINE INSPECTION
Date: Jan-13-2016

2.5 (d) REPEAT DURATION OF LICENSE AND TERMINATION OF LICENSE.

- The drive through area of the park is currently open for visitors, but is not an approved site. Site 002 (drive through site) is not a valid site and must be in complete compliance with all aspects of the Animal Welfare Act prior to being used for regulated activity.

2.131 (a) REPEAT HANDLING OF ANIMALS.

- The information for "Handling Dangerous Animals" has not been completed and sent to the regional office. The qualifications of the employees and addressing the other issues listed on the form are of utmost importance. The drive through section of the park contains potentially dangerous animals, such as a rhinoceros and a tiger, which were not on the original license. Individuals lacking knowledge and experience with dangerous animals might negatively impact the health and welfare of the animal through improper husbandry. The licensee must provide the regional office with written documentation regarding the experience and knowledge of the individuals who handle these animals. This information must be submitted and approved by the Western Regional Office before this site can be approved for regulated activity.

2.131 (d) (2) REPEAT HANDLING OF ANIMALS.

- At the time of inspection the drive through area of the park had members of the public driving their cars and opening their windows. The giraffe was observed lowering his head and the public were opening their car windows. There are park employees present in the giraffe's enclosure but they were working on the fence and their backs were to the public. There were no park employees that were monitoring public/animal interaction. A responsible, knowledgeable, and readily identifiable employee or attendant must be present at all times during periods of public contact.

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Title:

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Date:

Jan-14-2016

Received By:

(b)(6), (b)(7)(c)

Date:

Jan-14-2016



Inspection Report

Arbuckle Adventures L L C
Arbuckle Wilderness Park
6132 Kay Starr Trail
Davis, OK 74030

Customer ID: 324698
Certificate 73-C-0190
Site: 001
Arbuckle Adventures

Type: ROUTINE INSPECTION
Date: Jan-13-2016

3.78 (b) (1)

OUTDOOR HOUSING FACILITIES.

- The ring tailed lemurs are currently being housed in a corn crib enclosure with plastic tarps wrapped on the outside. Inside this enclosure is a small igloo dog house sitting on the concrete floor in front of two portable heaters located outside the corn crib enclosure. The licensee stated that the lemurs have not been moved inside this winter. He also stated he had two heaters placed beside each other on two separate breakers. The igloo entrance faces the heaters to allow the interior of the igloo to stay warm. The ambient temperature outside at the time of the inspection was 48 degrees F. The ambient temperature inside the corn crib enclosure was 61 degrees F. The interior of the igloo dog house had a temperature of 85 degree F. However, the igloo is not attached to anything and can be easily moved around the inside of the corn crib by the enclosed animals, which would leave the primates without a sufficiently heated shelter structure. This set up is not safe nor structurally sound for the enclosed Non-human primates. The mesonet map for Garvin county show 5 consecutive days this winter with temperatures below 32 degrees F, and a total of 28 days this winter with temperatures below freezing. The primates must be provided a secure, heated shelter or moved to an enclosure appropriate for winter weather.

To be corrected by January 18, 2016.

3.125 (a) REPEAT

FACILITIES, GENERAL.

- The enclosure housing the Jacobs sheep has multiple areas which are unsafe. The wire mesh enclosure fence has curled up at the bottom inside one of the two shelters, in the area where the animals are fed. This is an entrapment risk, and must be corrected. The long wooden shelter has several gaps, which also contain sharp points or loops of wire. These areas are a potential source of entrapment or injury to the contained animals. This shelter is in disrepair and is collapsing in the middle. There were two loose boards on the ground with exposed nails. These boards were removed during the inspection. All sharp points and loose wires must be eliminated, and all gaps repaired to minimize the risk of injury to the animals.

Prepared By:

DEBBIE CUNNINGHAM, V M O

DEBBIE CUNNINGHAM, V M O USDA, APHIS, Animal Care

Title:

VETERINARY MEDICAL OFFICER Inspector 6072

Date:

Jan-14-2016

Received By:

(b)(6), (b)(7)(c)

Date:

Jan-14-2016

Title:



Inspection Report

Inspection and exit interview conducted by Debbie Cunningham (VMO), Michael Tygart (VMO), and facility representative

Prepared By:

DEBBIE CUNNINGHAM, V M O

Title:

DEBBIE CUNNINGHAM, V M O USDA, APHIS, Animal Care
VETERINARY MEDICAL OFFICER Inspector 6072

Date:

Jan-14-2016

Received By:

(b)(6), (b)(7)(c)

Date:

Jan-14-2016

Title:



Inspection Report

Arbuckle Adventures L.L.C.
Arbuckle Wilderness Park
6132 Kay Starr Trail
Davis, OK 73030

Customer ID: 324698
Certificate: 73-C-0190
Site: 002
ARBUCKLE ADVENTURES L.L.C.
Type: ROUTINE INSPECTION
Date: Mar-29-2016

2.5 (d) REPEAT DURATION OF LICENSE AND TERMINATION OF LICENSE.

- The drive through area of the park is currently open for visitors, but is not an approved site. Site 002 (drive through site) is not a valid site and must be in complete compliance with all aspects of the Animal Welfare Act prior to being used for regulated activity.

2.126 (a) (2) REPEAT ACCESS AND INSPECTION OF RECORDS AND PROPERTY; SUBMISSION OF ITINERARIES.

- At the time of inspection the animal inventory dated 31 March 2016 was not up to date and the licensee was not able to provide an accurate animal inventory. There were at least 14 Pere David deer observed in the park by the inspectors and only 2 were listed on the current animal inventory. Complete and accurate records are necessary to ensure each animal's identity can be known with certainty and to facilitate the ability to trace those animals. The licensee must maintain complete and accurate records of all animals at all times and must ensure those records are available to the inspector upon request.

2.131 (a) REPEAT HANDLING OF ANIMALS.

- The information for "Handling Dangerous Animals" has not been completed and sent to the regional office. The qualifications of the employees and addressing the other issues listed on the form are of utmost importance. The drive through section of the park contains potentially dangerous animals, such as a rhinoceros and a tiger, which were not on the original license. Individuals lacking knowledge and experience with dangerous animals might negatively impact the health and welfare of the animal through improper husbandry. The licensee must provide the regional office with written documentation regarding the experience and knowledge of the individuals who handle these animals. This information must be submitted and approved by the Western Regional Office before this site can be approved for regulated activity.

Prepared By:

DEBBIE CUNNINGHAM, V M O

Title:

DEBBIE CUNNINGHAM, V M O USDA, APHIS, Animal Care
VETERINARY MEDICAL OFFICER/Inspector 6072

Date:

Apr-01-2016

Received By:

(b)(6), (b)(7)(c)

Date:

Apr-01-2016



Inspection Report

Prepared By:

DEBBIE CUNNINGHAM, V M O

Title:

DEBBIE CUNNINGHAM, V M O USDA, APHIS, Animal Care
VETERINARY MEDICAL OFFICER Inspector 6072

Date:

Apr-01-2010

Received By:

(b)(6), (b)(7)(c)

Date:

Apr-01-2010

Title:



Inspection Report

Arbuckle Adventures L L C
Arbuckle Wilderness Park
6132 Kay Starr Trail
Davis, OK 77030

Customer ID: 324698
Certificate: 73-C-0190
Site: 001
Arbuckle Adventures

Type: ROUTINE INSPECTION
Date: Mar-29-2016

3.50 (a)

FACILITIES, GENERAL.

- The enclosure in the gift shop area with a glass front, housing the rabbit, has an area in the bottom corner by the entry door where the mesh wire that is covering the wood appears to have been chewed and has multiple sharp points. This mesh wire is detached and curled at the bottom creating an area which is unsafe for the enclosed animal. This is an entrapment risk and the sharp points may cause injury to the enclosed rabbit and must be corrected. All sharp points and loose wires must be eliminated, and all gaps repaired to minimize the risk of injury to the animal.

To be corrected by: 2 April 2016.

3.80 (a)

PRIMARY ENCLOSURES.

- The ring tailed lemurs are currently being housed in a wire dog crate style enclosure that is 48 X 30 X 29 inches. This crate contains a small igloo style, plastic dog house that serves as a nest box that is 16 X 16 X 24 inches and sits on the floor of the wire dog crate style enclosure. This enclosure is located in the front area of the gift shop. There is a small public barrier around the NHPs. The licensee's representative stated that the lemurs had not been moved to another enclosure for the last 30 days at least. They were moved into the gift shop in January 2015 when their outside enclosure was not warm enough this winter. This set up does not allow the 3 square feet per NHP as required by the AWA. The primates must be provided a secure, appropriately sized shelter or be moved to an outside enclosure appropriate for spring and summer weather.

To be corrected by: 2 April 2016.

Inspection and exit interview conducted with the facility representative, USDA APHIS VMO Debbie Cunningham, and ACI Brittany Light.

Prepared By:

DEBBIE CUNNINGHAM, V M O

DEBBIE CUNNINGHAM, V M O USDA, APHIS, Animal Care

Title:

VETERINARY MEDICAL OFFICER Inspector 6072

Date:

Apr-01-2016

Received By:

(b)(6), (b)(7)(c)

Date:

Apr-01-2016

Title:



Inspection Report

Prepared By:

DEBBIE CUNNINGHAM, V M O

Title:

DEBBIE CUNNINGHAM, V M O USDA, APHIS, Animal Care
VETERINARY MEDICAL OFFICER Inspector 6072

Date:

Apr-01-2016

Received By:

(b)(6), (b)(7)(c)

Date:

Apr-01-2016

Title:



Inspection Report

Arbuckle Adventures L L C
Arbuckle Wilderness Park
6132 Kay Starr Trail
Davis, OK 73030

Customer ID: **324698**

Certificate: **73-C-0190**

Site: 002

ARBUCKLE ADVENTURES, L L C

Type: ROUTINE INSPECTION

Date: Jun-28-2016

2.5 (d) REPEAT

DURATION OF LICENSE AND TERMINATION OF LICENSE.

- The drive through area of the park is currently open for visitors, but is not an approved site. Site 002 (drive through site) is not a valid site and must be in complete compliance with all aspects of the Animal Welfare Act prior to being used for regulated activity.

2.131 (a) REPEAT

HANDLING OF ANIMALS.

- The information for "Handling Dangerous Animals" has not been completed and sent to the regional office. The qualifications of the employees and addressing the other issues listed on the form are of utmost importance. The drive through section of the park contains potentially dangerous animals, such as a rhinoceros and a tiger, which were not on the original license. Individuals lacking knowledge and experience with dangerous animals might negatively impact the health and welfare of the animal through improper husbandry. The licensee must provide the regional office with written documentation regarding the experience and knowledge of the individuals who handle these animals. This information must be submitted and approved by the Western Regional Office before this site can be approved for regulated activity.

2.131 (d) (2) REPEAT

HANDLING OF ANIMALS.

- Pepsi cups full of feed are sold at the gift shop for members of the public to give to the animals. The drive through area of the park had members of the public driving their cars through and feeding animal feed from paper Pepsi cups that are available for purchase at the gift shop. A vehicle was observed at the giraffe enclosure, with a park visitor leaning out of the window and touching the head of the giraffe. There were no park employees present during this public/animal interaction. Unsupervised contact between animals and members of the public poses a potential risk both to the health of the animals, and the welfare of the public. A responsible, knowledgeable, and readily identifiable park employee or attendant must be present at all times during periods of public contact.

Prepared By:

MICHAEL TYGART, D V M

MICHAEL TYGART, D.V.M USDA, APHIS, Animal Care

Title: VETERINARY MEDICAL OFFICER Inspector 6009

Date:

Jul-01-2016

Received By:

(b)(6), (b)(7)(c)

Title:

Date:

Jul-01-2016



Inspection Report

3.125 (a) **REPEAT**

FACILITIES, GENERAL.

- In the first part of the drive through area of the park containing a large number of donkeys and other hoof stock, there is a section of old fencing and pipes that are broken, partially buried, and with the pipes exposed and protruding from the ground at a forty-five degree angle. This area is a potential source of injury and/or entrapment for any animals that might travel through this area. This section should be cleared, and all old fencing/pipe removed safely. All fencing in every section of the park must be maintained at all times in order to safely contain and prevent injury and/or entrapment to the enclosed animals.

Inspection and exit interview conducted by Michael Tygart (VMO), Brittany Light (ACI) and facility personnel.

Prepared By:

MICHAEL TYGART, D V M

MICHAEL TYGART, D.V.M USDA, APHIS, Animal Care

Title: VETERINARY MEDICAL OFFICER Inspector 6009

Date:

Jul-01-2016

Received By:

(b)(6), (b)(7)(c)

Title:

Date:

Jul-01-2016



Inspection Report

Arbuckle Adventures L L C
6132 Kay Starr Trail
Davis, OK 73030

Customer ID: **324698**
Certificate: **73-C-0190**
Site: 001
Arbuckle Adventures

Type: ROUTINE INSPECTION
Date: 18-OCT-2016

2.40(b)(2)

ATTENDING VETERINARIAN AND ADEQUATE VETERINARY CARE (DEALERS AND EXHIBITORS).

- In the walk-through portion of the park there was a Jacob sheep with a gait abnormality. The sheep had a limp but was able to keep up with the flock. The left rear limb appeared to be the affected limb. The sheep was able to move around the enclosure, graze, and drink. Lameness can be caused by hoof issues, soft tissue injury, or infection. This condition may be painful and impact the health of the animal. The applicant must have this animal examined by a veterinarian to obtain an accurate diagnosis and appropriate treatment plan. The outcome of this consultation must be documented and provided to the inspector upon request. The applicant must ensure that all animals receive adequate veterinary care at all times.

Corrected by: 25 Oct. 2016

3.125(a) REPEAT

FACILITIES, GENERAL.

- In the Jacobs sheep enclosure, two separate sections of wire fence were detached from the adjacent support post leaving a section curling up with multiple exposed sharp points. One section was located next to the water trough, and the second was along the fence line in the main pasture. This is a potential source of injury to the enclosed animals. Fencing and other structures must be maintained in good repair to ensure the animals are safely contained within their enclosure.

Additional Inspectors

Dominique Engel, Veterinary Medical Officer

Jeremy Higgins, Training Specialist

Michael Tygart, Veterinary Medical Officer

Prepared By:

DEBBIE CUNNINGHAM, D V M

DEBBIE CUNNINGHAM USDA, APHIS, Animal Care

Title: VETERINARY MEDICAL OFFICER 6072

Received By:

Title:

Date:
24-OCT-2016

Date:
24-OCT-2016



Inspection Report

Arbuckle Adventures L L C
6132 Kay Starr Trail
Davis, OK 73030

Customer ID: **324698**

Certificate: **73-C-0190**

Site: 002

ARBUCKLE ADVENTURES, L L C

Type: ROUTINE INSPECTION

Date: 18-OCT-2016

2.5(d) REPEAT

DURATION OF LICENSE AND TERMINATION OF LICENSE.

- The drive through area of the park is currently open for visitors, but is not an approved site. Site 002 (drive through site) is not a valid site and must be in complete compliance with all aspects of the Animal Welfare Act prior to being used for regulated activity.

2.131(a) REPEAT

HANDLING OF ANIMALS.

- The information for "Handling Dangerous Animals" has not been completed and sent to the regional office. The qualifications of the employees and addressing the other issues listed on the form are of utmost importance. The drive through section of the park contains potentially dangerous animals, such as a rhinoceros and a tiger, which were not on the original license. Individuals lacking knowledge and experience with dangerous animals might negatively impact the health and welfare of the animal through improper husbandry. The licensee must provide the regional office with written documentation regarding the experience and knowledge of the individuals who handle these animals. This information must be submitted and approved by the Western Regional Office before this site can be approved for regulated activity.

2.131(d)(2) REPEAT

HANDLING OF ANIMALS.

- Pepsi cups full of feed are sold at the gift shop for members of the public to give to the animals. The drive through area of the park had members of the public driving their cars through and feeding animal feed from paper Pepsi cups that are available for purchase at the gift shop. A vehicle was observed stopped with an arm extended out an open attempting to feed park animals.. There were no park employees present during this public/animal interaction. Unsupervised contact between animals and members of the public poses a potential risk both to the health of the animals, and the welfare of the public. A responsible, knowledgeable, and readily identifiable park employee or

Prepared By:

DEBBIE CUNNINGHAM, D V M

DEBBIE CUNNINGHAM USDA, APHIS, Animal Care

Title: VETERINARY MEDICAL OFFICER, 6072

Received By:

(b)(6), (b)(7)(c)

Title: OWNER

Date:

24-OCT-2016

Date:

24-OCT-2016



Inspection Report

attendant must be present at all times during periods of public contact.

3.125(a) REPEAT

FACILITIES, GENERAL.

- In the Serengeti section of the drive through area of the park the giraffe enclosure has exposed sharp points. A section of the enclosure fencing near the side corridor extends above the top fence rail, with points exposed and within reach of the giraffe. This area is a potential source of injury for the enclosed animal and must be corrected and/or repaired. All fencing in every section of the park must be maintained at all times in order to safely contain and prevent injury and/or entrapment to the enclosed animals.

This inspection and exit interview were conducted with facility representative.

Additional Inspectors

Dominique Engel, Veterinary Medical Officer

Jeramy Higgins, Training Specialist

Michael Tygart, Veterinary Medical Officer

Prepared By:

DEBBIE CUNNINGHAM, D V M

DEBBIE CUNNINGHAM USDA, APHIS, Animal Care

Title: VETERINARY MEDICAL OFFICER 6072

Date:
24-OCT-2016

Received By:

(b)(6), (b)(7)(c)

Title: OWNER

Date:
24-OCT-2016



Cust No	Cert No	Site	Site Name	Inspection
324698	73-C-0190	002	ARBUCKLE ADVENTURES L L C	18-OCT-16

Count	Species
000004	Cow/ox/watusi
000002	Asiatic water buffalo
000022	Pere Davids deer
000001	Red kangaroo
000001	Red kangaroo
000005	Yak
000003	Sheep or mouflon
000016	Zebu
000001	Nilgai
000002	Przewalski's Wild Horse
000001	Tiger
000070	Fallow deer
000003	Arabian oryx
000004	Common eland
000006	American bison
000001	Spotted hyena
000002	Common zebra
000001	White rhinoceros
000001	Giraffe
000002	Addax
000032	Llama
000009	Alpaca
000003	Domestic bactrian camel
000192	Total



Inspection Report

Arbuckle Adventures L L C
6132 Kay Starr Trail
Davis, OK 73030

Customer ID: **324698**
Certificate: **73-C-0190**
Site: 001
Arbuckle Adventures

Type: ROUTINE INSPECTION
Date: 18-JAN-2017

3.125(a) REPEAT

FACILITIES, GENERAL.

- In the Jacobs sheep enclosure, two separate sections of wire fence were detached from the adjacent support post leaving a section curling up with multiple exposed sharp points. One section was located next to the water trough, and the second was along the fence line in the main pasture. The second area contained a splintered off board with sharp points and a board close by had screws protruding with sharp points. A loose board was on the ground approximately 2x2x18 inches that had 4 exposed nails. These were potential sources of injury to the enclosed animals. Fencing and other structures must be maintained in good repair to ensure the animals are safely contained within their enclosure.

Licensee repaired all sharp points in this enclosure during the inspection.

This inspection and exit interview were conducted with facility representatives.

Additional Inspectors

Michael Tygart, Veterinary Medical Officer

Prepared By:

DEBBIE CUNNINGHAM, D V M

DEBBIE CUNNINGHAM USDA, APHIS, Animal Care

Title: VETERINARY MEDICAL OFFICER 6072

Received By:

(b)(6), (b)(7)(c)

Title: OWNER

Date:
19-JAN-2017

Date:
19-JAN-2017



Cust No	Cert No	Site	Site Name	Inspection
324698	73-C-0190	001	ARBUCKLE ADVENTURES L L C	18-JAN-17

Count	Species
000001	South American Coati
000007	Sheep or mouflon
000001	African brush-tailed porcupine
000002	Pig
000001	North American porcupine
000002	Llama
000001	Alpaca
000002	Ring-tailed lemur
000017	Total



Inspection Report

Arbuckle Adventures L L C
6132 Kay Starr Trail
Davis, OK 73030

Customer ID: **324698**

Certificate: **73-C-0190**

Site: 002

ARBUCKLE ADVENTURES, L L C

Type: ROUTINE INSPECTION

Date: 18-JAN-2017

2.5(d) REPEAT

DURATION OF LICENSE AND TERMINATION OF LICENSE.

- The drive through area of the park is currently open for visitors, but is not an approved site. Site 002 (drive through site) is not a valid site and must be in complete compliance with all aspects of the Animal Welfare Act prior to being used for regulated activity.

2.131(a) REPEAT

HANDLING OF ANIMALS.

- The information for "Handling Dangerous Animals" has not been completed and sent to the regional office. The qualifications of the employees and addressing the other issues listed on the form are of utmost importance. The drive through section of the park contains potentially dangerous animals, such as a rhinoceros and a lion, which were not on the original license. Individuals lacking knowledge and experience with dangerous animals might negatively impact the health and welfare of the animal through improper husbandry. The licensee must provide the regional office with written documentation regarding the experience and knowledge of the individuals who handle these animals. This information must be submitted and approved by the Western Regional Office before this site can be approved for regulated activity.

3.125(a) REPEAT

FACILITIES, GENERAL.

- In the Serengeti section of the drive through area of the park the giraffe enclosure has exposed sharp points. A section of the enclosure fencing behind the barn the fence is detached from the top rail, with points exposed and within reach of the giraffe. This area is a potential source of injury for the enclosed animal and must be corrected and/or repaired. All fencing in every section of the park must be maintained at all times in order to safely contain and prevent injury and/or entrapment to the enclosed animals.

- In the first part of the drive through area of the park just across the cattle guard containing a large number of

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DEBBIE CUNNINGHAM, D V M

DEBBIE CUNNINGHAM USDA, APHIS, Animal Care

Title: VETERINARY MEDICAL OFFICER, 6072

Received By:

(b)(6), (b)(7)(c)

Title: OWNER

Date:

19-JAN-2017

Date:

19-JAN-2017



Inspection Report

donkeys and other hoof stock, there is a section of old fencing that had pulled away from the top support bar. This fencing was protruding at an approximate thirty-five degree angle. This area is a potential source of injury and/or entrapment for any animals that might travel through this area. This section should be cleared, and all old fencing should be secured to the top support bar. All fencing in every section of the park must be maintained at all times in order to safely contain and prevent injury and/or entrapment to the enclosed animals

This inspection and exit interview were conducted with facility representatives.

Additional Inspectors

Michael Tygart, Veterinary Medical Officer

Prepared By:

DEBBIE CUNNINGHAM, D V M

DEBBIE CUNNINGHAM USDA, APHIS, Animal Care

Title: VETERINARY MEDICAL OFFICER 6072

Received By:

(b)(6), (b)(7)(c)

Title: OWNER

Date:

19-JAN-2017

Date:

19-JAN-2017



Cust No	Cert No	Site	Site Name	Inspection
324698	73-C-0190	002	ARBUCKLE ADVENTURES L L C	18-JAN-17

Count	Species
000004	Cattle/cow/ox/watusi
000002	Asiatic water buffalo
000022	Pere Davids deer
000001	Red kangaroo
000002	Yak
000003	Sheep or mouflon
000016	Zebu
000001	Nilgai
000001	Lion
000001	Pig
000001	Przewalski's Wild Horse
000070	Fallow deer
000002	Arabian oryx
000002	Common eland
000006	American bison
000001	Spotted hyena
000002	Common zebra
000001	White rhinoceros
000001	Giraffe
000032	Llama
000009	Alpaca
000003	Domestic bactrian camel
000183	Total



Inspection Report

Arbuckle Adventures L L C
6132 Kay Starr Trail
Davis, OK 73030

Customer ID: **324698**
Certificate: **73-C-0190**
Site: 001
Arbuckle Adventures

Type: ROUTINE INSPECTION
Date: 23-MAY-2017

3.81(c)(4)

ENVIRONMENT ENHANCEMENT TO PROMOTE PSYCHOLOGICAL WELL-BEING.

In the office area, a single ring tailed lemur is being held. There are no other nonhuman primates within visual or auditory distance. The cage was empty of any type of enrichment, and the animal displayed repetitive pacing consistently while inspectors were present. Singly housed primates need special consideration for enrichment and must be accounted for on the facility enrichment plan. The facility must ensure adequate enrichment is present for this animal.

Corrected during the inspection

This inspection and exit interview were conducted with facility representatives.

Additional Inspectors

Niebruegge Cathy, Animal Care Inspector

Prepared By:

TYGART MICHAEL, D V M

TYGART MICHAEL, D V M USDA, APHIS, Animal Care

Title: VETERINARY MEDICAL OFFICER 6009

Date:
24-MAY-2017

Received By:

Title:

Date:
24-MAY-2017



Inspection Report

Arbuckle Adventures L L C
6132 Kay Starr Trail
Davis, OK 73030

Customer ID: **324698**

Certificate: **73-C-0190**

Site: 002

ARBUCKLE ADVENTURES, L L C

Type: ROUTINE INSPECTION

Date: 23-MAY-2017

2.5(d) REPEAT

DURATION OF LICENSE AND TERMINATION OF LICENSE.

- The drive through area of the park is currently open for visitors, but is not an approved site. Site 002 (drive through site) is not a valid site and must be in complete compliance with all aspects of the Animal Welfare Act prior to being used for regulated activity.

2.131(a) REPEAT

HANDLING OF ANIMALS.

- The information for "Handling Dangerous Animals" has not been completed and sent to the regional office. The qualifications of the employees and addressing the other issues listed on the form are of utmost importance. The drive through section of the park contains potentially dangerous animals, such as a rhinoceros and a lion, which were not on the original license. Individuals lacking knowledge and experience with dangerous animals might negatively impact the health and welfare of the animal through improper husbandry. The licensee must provide the regional office with written documentation regarding the experience and knowledge of the individuals who handle these animals. This information must be submitted and approved by the Western Regional Office before this site can be approved for regulated activity.

This inspection and exit interview were conducted with facility representative.

Additional Inspectors

Niebruegge Cathy, Animal Care Inspector

Prepared By:

TYGART MICHAEL, D V M

TYGART MICHAEL, D V M USDA, APHIS, Animal Care

Title: VETERINARY MEDICAL OFFICER 6009

Date:

24-MAY-2017

Received By:

Title:

Date:

24-MAY-2017



Inspection Report

Arbuckle Adventures L L C
6132 Kay Starr Trail
Davis, OK 73030

Customer ID: **324698**

Certificate: **73-C-0190**

Site: 002

ARBUCKLE ADVENTURES, L L C

Type: ROUTINE INSPECTION

Date: 26-JUL-2017

2.5(d) REPEAT

DURATION OF LICENSE AND TERMINATION OF LICENSE.

- The drive through area of the park is currently open for visitors, but is not an approved site. Site 002 (drive through site) is not a valid site and must be in complete compliance with all aspects of the Animal Welfare Act prior to being used for regulated activity.

2.131(a) REPEAT

HANDLING OF ANIMALS.

- The information for "Handling Dangerous Animals" has not been completed and sent to the regional office. The qualifications of the employees and addressing the other issues listed on the form are of utmost importance. The drive through section of the park contains potentially dangerous animals, a rhinoceros, a tiger and a lion, which were not on the original license. Individuals lacking knowledge and experience with dangerous animals might negatively impact the health and welfare of the animal through improper husbandry. The licensee must provide the regional office with written documentation regarding the experience and knowledge of the individuals who handle these animals. This information must be submitted and approved by the Western Regional Office before this site can be approved for regulated activity.

2.131(d)(2) REPEAT

HANDLING OF ANIMALS.

- Pepsi cups full of feed are sold at the gift shop for members of the public to give to the animals. The drive through area of the park had members of the public driving their cars through and feeding animals through open vehicle windows. There were no park employees present during this public/animal interaction. Unsupervised contact between animals and members of the public poses a potential risk both to the health of the animals, and the welfare of the public. A responsible, knowledgeable, and readily identifiable park employee or attendant must be present at all times during periods of public contact.

Prepared By:

BOONE BONNIE, D V M

BOONE BONNIE, D V M USDA, APHIS, Animal Care

Title: VETERINARY MEDICAL OFFICER 6119

Received By:

Title:

Date:

27-JUL-2017

Date:

27-JUL-2017



Inspection Report

This inspection was conducted with licensee and a facility representative. The exit interview was conducted with a facility representative.

Additional Inspectors

Tygart Michael, Veterinary Medical Officer

Prepared By:

BOONE BONNIE, D V M

BOONE BONNIE, D V M USDA, APHIS, Animal Care

Title: VETERINARY MEDICAL OFFICER 6119

Received By:

Title:

Date:

27-JUL-2017

Date:

27-JUL-2017



Inspection Report

Arbuckle Adventures L L C
6132 Kay Starr Trail
Davis, OK 73030

Customer ID: **324698**

Certificate: **73-C-0190**

Site: 001

ARBUCKLE ADVENTURES

Type: ROUTINE INSPECTION

Date: 26-JUL-2017

No non-compliant items identified during this inspection.

This inspection and exit interview were conducted with facility representative.

Additional Inspectors

Tygart Michael, Veterinary Medical Officer

Prepared By:

BOONE BONNIE, D V M

BOONE BONNIE, D V M USDA, APHIS, Animal Care

Title: VETERINARY MEDICAL OFFICER 6119

Date:

27-JUL-2017

Received By:

Title:

Date:

27-JUL-2017



Inspection Report

Tom J. Sellner
Pamela J. Sellner
Cricket Hollow Zoo
1512 210th Street
Manchester, IA 52057

Customer ID: 5143
Certificate: 42-C-0084
Site: 001
TOM & PAMELA SELLNER

Type: ROUTINE INSPECTION
Date: Aug-05-2014

2.40 (b) (2) REPEAT

ATTENDING VETERINARIAN AND ADEQUATE VETERINARY CARE (DEALERS AND EXHIBITORS).

Adult, female Old English Sheepdog named "Macey" has sores behind both ears that are approximately one inch in diameter. The areas are red and moist but there is no discharge. The dog was not seen shaking her head or scratching the area. Skin lesions can be caused by trauma, parasites/pests, and other medical problems and can be painful. The licensee must have this animal examined by a licensed veterinarian in order to ensure that an accurate diagnosis is obtained and that an appropriate treatment plan is developed and followed. The licensee must document the outcome of this consultation and make it available to the inspector upon request.

The licensee stated that she is using "Nolvasan" antiseptic ointment on the sores near the ears of the Old English Sheepdog. The expiration date listed on the container is Oct 07. Expired medications can experience spoilage or have reduced efficacy. This could lead to prolonged illness or suffering for the animals needing the drug. The licensee must ensure that all medications used in the facility are not expired and labeled properly in accordance with standard veterinary practices.

3.1 (c) (3) REPEAT

HOUSING FACILITIES, GENERAL.

Cleaning

Within the wolf hybrid enclosure there is a build-up of feces and food waste on the floor of the enclosure. The waste is attracting flies. There are two wolf hybrids in this enclosure. Failure to properly clean and sanitize primary enclosures can lead to disease hazards for the animals. Floors made of dirt, absorbent bedding, sand, gravel, grass, or other similar material must be raked or spot-cleaned with sufficient frequency to ensure all animals the freedom to avoid contact with excreta. Contaminated material must be replaced whenever this raking and spot-cleaning is not sufficient to prevent or eliminate odors, insects, pests, or vermin infestation.

Prepared By:

MARGARET SHAVER, D.V.M.

MARGARET A SHAVER, D.V.M. USDA, APHIS, Animal Care

Title:

VETERINARY MEDICAL OFFICER Inspector 6034

Date:

Aug-06-2014

Received By:

(b)(6), (b)(7)(c)

Date:

Aug 07-2014

Title:



Inspection Report

3.10

WATERING.

In an enclosure containing two dogs, the water receptacle contained a buildup of green material, dirt and/or debris. Failure to clean and sanitize water receptacles can lead to disease hazards for the animals. All water receptacles must be kept clean and sanitized at least once every two weeks or more often if necessary to prevent an accumulation of dirt, debris, algae and other disease hazards.

To be corrected by: August 19, 2014

3.11 (d)

CLEANING, SANITIZATION, HOUSEKEEPING, AND PEST CONTROL.

There are excessive numbers of flies seen on the feces and on the ground throughout the enclosure housing two dogs and the enclosure housing two wolf dog hybrids. One of the dogs was seen to have sores behind her ears that the licensee attributed to the flies. Flies can transmit disease and can cause skin irritation. The licensee must establish and maintain an effective program for the control of insects that are pests so as to promote the health and well-being of the animals and reduce contamination by pests in animal areas. To be corrected by 5 September 2014.

3.75 (a)

HOUSING FACILITIES, GENERAL.

There are two broken wood support boards at the base of the outdoor portion of the enclosure housing three baboons. Broken wood panels can cause injury to the animals and affect the structural integrity of the enclosure. The licensee must ensure that housing facilities for nonhuman primates are designed and constructed so that they are structurally sound for the species of nonhuman primates housed in them. Enclosures must also be kept in good repair, protect the animals from injury, contain the animals securely, and restrict other animals from entering. To be corrected 5 September 2014

3.75 (c) (3)

REPEAT

HOUSING FACILITIES, GENERAL.

Cleaning

The floor of the enclosure housing two rhesus macaques had a buildup of wet and dirty bedding material. When the animals shook the bars of the cage, bugs were observed crawling out from the wet bedding. Failure to clean animal housing areas, including primary enclosures, can lead to health hazards, pests and odors.

Hard surfaces with which non-human primates come in contact must be spot-cleaned daily and indoor primary enclosures must be sanitized at least once every two weeks or more often if necessary to prevent an excessive accumulation of dirt, debris, animal or food waste, or disease hazards. Contaminated material must be removed or replaced whenever raking and spot cleaning does not eliminate odors, diseases, insects, pests, or vermin infestation. All other surfaces within housing facilities must be cleaned and sanitized when necessary to satisfy generally accepted husbandry standards and practices.

Prepared By:

MARGARET SHAVER, D.V.M.

MARGARET A SHAVER, D.V.M. USDA, APHIS, Animal Care

Title:

VETERINARY MEDICAL OFFICER Inspector 6034

Date:

Aug-06-2014

Received By:

(b)(6), (b)(7)(c)

Date:

Aug-07-2014

Title:



Inspection Report

3.84 (d)

CLEANING, SANITIZATION, HOUSEKEEPING, AND PEST CONTROL

Pest control.

There are an excessive number of flies lying around within the walkway in the back of the reptile house near the ring tailed and red ruffed lemur enclosures. The licensee states these are fruit flies. There are an excessive number of flies within the primate building. The flies are mainly located within the walkways between the enclosures.

The presence of pests can lead to health hazards for the animals. A safe and effective program for the control of pests, including flies, must be established and maintained. To be corrected 5 September 2014.

3.125 (a)

REPEAT

FACILITIES, GENERAL

There are several enclosures throughout the facility in need of repair.

There is a section of chain link fence between the camel and sheep enclosure that has separated from the support post at the ground. This area of the fence is also pushed up and into the sheep enclosure thereby exposing the sharp points at the base of the fence.

Within the sloth enclosure, there is an exposed screw (approximately 2 inches) that was previously used to support a climbing log.

There is a gap under the gate in an enclosure housing Santa Cruz sheep including young and small lambs. The gap appears to be large enough to allow the lambs to crawl through the gap.

These areas are not in good repair and could lead to animal escape or injury.

These areas need to be repaired or replaced so they are structurally sound and shall be maintained in good repair to protect the animals from injury and to contain the animals.

3.125 (c)

FACILITIES, GENERAL

The food storage room in the education building has a box containing deteriorating fruits and vegetables (mango, lettuce, and peppers). There is also a bag containing molding bread and small flies. Deteriorating food loses its nutritive value. The licensee must store supplies of food and bedding in facilities which adequately protect such supplies against deterioration, molding, or contamination by vermin. To be corrected 6 August 2014.

Prepared By:

MARGARET SHAVER, D.V.M.

Title:

MARGARET A SHAVER, D.V.M. USDA, APHIS, Animal Care
VETERINARY MEDICAL OFFICER Inspector 6034

Date:

Aug-06-2014

Received By:

(b)(6), (b)(7)(c)

Date:

Aug-07-2014

Title:



Inspection Report

3.127 (c) **REPEAT**

FACILITIES, OUTDOOR.

Drainage.

There are large areas of standing water within the potbelly pig enclosure (3) and the Meishan pig enclosure (2). Within the potbelly pig enclosure, the water has collected under and around the automatic waterer. Within the Meishan pig enclosure, there are three large areas of standing water. One of the large pools of water has a layer of slime.

Improper drainage within enclosures does not ensure a clean, dry environment for the animals. A suitable method shall be provided to rapidly eliminate excess water from within the enclosures.

3.130 **REPEAT**

WATERING.

The water receptacles within the capybara enclosure and the enclosure housing three raccoons contain green water, dirt and/or debris. Lack of clean water for animals can cause thirst, dehydration and other medical conditions. The licensee must ensure that potable water is offered to the animals as often as necessary to provide for their health and comfort. All water receptacle shall be kept clean and sanitary.

3.131 (a) **REPEAT**

SANITATION.

Cleaning of enclosures

There are several enclosures throughout the entire facility that have a build-up of food waste and/or animal waste within the enclosure and/or within the shelter for the enclosure. The following animals were in the affected enclosures: spiny mice (12 in the reptile building), tigers (2), bobcat (1), lions (2), African crested porcupines (2), sloth (1), Patagonian cavy (1), camel (1), sheep (30), fallow deer (1), llamas (4), goats (21), cattle (7), cougar (1), and bobcat (1). In some of the areas the build-up is very thick and is mixed in with the bedding or floor substrate. In some of these locations there is an odor and the waste is attracting flies.

There is a buildup of wet and dirty hay and other food debris in a plastic crate in the enclosure housing one capybara. When examined with a gloved hand, bugs were seen crawling at the bottom of the wet debris. The licensee states that she uses this crate for feeding in this enclosure.

Failure to clean animal enclosures can lead to health hazards, pests and odors. Primary enclosures shall be cleaned and excreta shall be removed in order to prevent contamination of the animals contained therein and to minimize disease hazards, pests and odors.

Prepared By:

MARGARET SHAVER, D.V.M.

Title:

MARGARET A SHAVER, D.V.M. USDA, APHIS, Animal Care
VETERINARY MEDICAL OFFICER Inspector 6034

Date:

Aug-06-2014

Received By:

(b)(6), (b)(7)(c)

Date:

Aug 07-2014

Title:



Inspection Report

3.131 (d)

REPEAT

SANITATION.

Pest control.

There are an excessive number of flies present throughout the entire facility. There are flies within the following enclosures: Patagonian cavy (1), capybara (1), potbelly pigs (3), Meishan pigs (2), cattle (5), tigers (7), cougar (1), lions (2). Flies can be seen landing on the animals, bedding, food and animal waste. The brangus and one of the tigers are reacting to the excessive flies landing on them. The brangus is stomping and shaking his head and the tiger is twitching and pawing at the flies.

There are flies flying around within the walkway in the back of the reptile house and in the food storage room in the education center. The flies in the education center are hovering around and crawling on stored food. The licensee states these are fruit flies.

The presence of pests can lead to health hazards for the animals. A safe and effective program for the control of pests, including flies, birds, spiders and rodents, must be established and maintained.

This was an inspection of the facility only. Records were not inspected at this visit. The inspection and exit interview were conducted with the licensee.

Prepared By:

MARGARET SHAVER, D.V.M.

Title:

MARGARET A SHAVER, D.V.M. USDA, APHIS, Animal Care
VETERINARY MEDICAL OFFICER Inspector 6034

Date:

Aug-06-2014

Received By:

(b)(6), (b)(7)(C)

Date:

Aug 07-2014



Inspection Report

Pamela J. Sellner
Tom J. Seliner
Cricket Hollow Zoo
1512 210th Street
Manchester, IA 52057

Customer ID: 5143
Certificate: 42-C-0084

Site: 001
TOM & PAMELA SELLINER

Type: ROUTINE INSPECTION
Date: Oct-07-2014

2.40 (b) (2) REPEAT DIRECT NCI

ATTENDING VETERINARIAN AND ADEQUATE VETERINARY CARE (DEALERS AND EXHIBITORS).

There is male, white tiger named "Casper" (date of birth 6/04) with an open wound on the inside of the left front leg that is about two inches by three inches in size. The skin around the wound is red and swollen and the skin is pulled back exposing red tissue in two places. Casper was seen licking this wound. The animal also has a moderately thin body condition with mildly protruding hip bones and vertebrae. This animal was acquired on 10 July 2014. According to the licensee, he was thin and had cuts and sores on his face and legs at that time and she had documented those problems. The attending veterinarian evaluated the tiger on 25 August 2014. No treatment guidelines were given to the licensee at that time. No treatment for the skin or wounds has been given to this animal. The licensee gave deworming medication to the animal on 14 September 2014, because of the thin body condition. The licensee states that the animal has not gained weight as she expected after the deworming medication was given. The attending veterinarian has not evaluated this animal since the initial exam in August. Skin wounds can become infected and be painful for the animal. Also, a thin body condition can indicate other medical problems occurring in the animal. The licensee must have this animal examined by a licensed veterinarian by close of business on 9 October 2014 in order to ensure that an accurate diagnosis for the thin body condition and skin wound is obtained and that an appropriate treatment plan is developed and followed. The licensee must document the outcome of this consultation, including the diagnosis, treatment and resolution of the condition, and make it available to the inspector upon request.

3.125 (a) REPEAT

FACILITIES, GENERAL

The panel fence of the llama enclosure housing four llamas has areas of bent and protruding metal bars. Some of the protruding metal bars are pointed inward toward the animal enclosure at foot level and at head level by the feeder. Enclosures that are not kept in good repair can lead to injuries in the animals.

There are areas in the fence of the goat enclosure with holes large enough that at least three small goats were seen outside the enclosure. One goat was seen in the "alley way" behind the goat enclosure and the other two were seen in the hay rack adjacent to the next enclosure. The "alley way" behind the enclosure where these small goats were seen has fencing with sharp points and access to the land outside of the facility. Animal housing facilities that do not securely contain the animals can lead to injuries or loss of the

Prepared By:

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MARGARET A SHAVER, D.V.M. USDA, APHIS, Animal Care

Title:

VETERINARY MEDICAL OFFICER Inspector 6034

Date:

Oct-07-2014

Received By:

(b)(6), (b)(7)(c)

Date:

Oct-07-2014

Title:



Inspection Report

animals.

The licensee must ensure that the facility is constructed of such material and of such strength as appropriate for the animals involved. The indoor and outdoor housing facilities shall be structurally sound and shall be maintained in good repair to protect the animals from injury and to contain the animals.

3.129 (a)

FEEDING.

There is a coin operated food dispenser for public use in front of the enclosure housing 26 Jacob's sheep and two Barbados sheep. The clear container allows for visualization of the food contained within. There is caking and discoloration of the food at the bottom of the food container. The food dispenser was covered with plastic at the time of inspection because the licensee is concerned about water getting into the container. Deterioration of food for the animals can lead to contaminated food and decreased nutritional value. The licensee must ensure that food shall be wholesome, palatable, and free from contamination and of sufficient quantity and nutritive value to maintain all animals in good health. To be corrected by 11 October 2014.

The non-compliant item listed under Adequate Veterinary Care on the previous inspection report - 2.40(b)(2) has been corrected.

The inspection and exit interview were conducted with the licensee.

Prepared By:

MARGARET SHAVER, D.V.M.

Title:

MARGARET A SHAVER, D.V.M. USDA, APHIS, Animal Care
VETERINARY MEDICAL OFFICER Inspector 6034

Date:

Oct-07-2014

Received By:

(b)(6), (b)(7)(c)

Date:

Oct-07-2014



Inspection Report

Tom J. Sellner
Pamela J. Sellner
Cricket Hollow Zoo
1512 210th Street
Manchester, IA 52057

Customer ID: 5143
Certificate: 42-C-0084
Site: 001
TOM & PAMELA SELLNER

Type: ROUTINE INSPECTION
Date: Nov 06-2014

This is a focused inspection to address the Direct Veterinary Care Non-compliant item 2.40 (b)(2) listed on the October 7, 2014 inspection report. This non-compliant item has been corrected.

No non-compliant items identified during this inspection.

Inspection and exit interview conducted with the owner.

Prepared By:

HEATHER COLE, V M O

HEATHER COLE, VMO USDA, APHIS, Animal Care

Title: VETERINARY MEDICAL OFFICER Inspector 6026

Date:

Nov-06-2014

Received By:

(b)(6), (b)(7)(c)

Date:

Nov-06-2014

Title:



Inspection Report

Tom J Sellner
Pamela J Sellner
Cricket Hollow Zoo
1512 210th Street
Manchester, IA 52057

Customer ID: **5143**

Certificate: **42-C-0084**

Site: 001

TOM & PAMELA SELLNER

Type: ATTEMPTED INSPECTION

Date: Feb-19-2015

2.126 (b)

ACCESS AND INSPECTION OF RECORDS AND PROPERTY; SUBMISSION OF ITINERARIES.

A responsible adult was not available to accompany APHIS Officials during the inspection process at 10:00 am to 10:30 am on 02/19/2015.

Prepared By:

HEATHER COLE, V M O

HEATHER COLE, V M O USDA, APHIS, Animal Care

Title: VETERINARY MEDICAL OFFICER Inspector 6026

Date:

Feb-19-2015

Received By:

(b)(6), (b)(7)(c)

Date:

Feb-19-2015



Inspection Report

Tom J Seliner
Pamela J Seliner
Cricket Hollow Zoo
1512 210th Street
Manchester, IA 52057

Customer ID: 5143
Certificate: 42-C-0084
Site: 001
TOM & PAMELA SELINER

Type: ROUTINE INSPECTION
Date: Mar-04-2015

3.75 (c) (3) REPEAT

HOUSING FACILITIES, GENERAL.

The enclosure housing one vervet has a build-up of food waste, hair, grime and/or animal waste on at least one perch within the enclosure. The waste is building up on the wall above the perch, in the crack between the wall and the perch and in the holes within the perch. Failure to clean primary enclosures can lead to disease hazards, pests and odors.

Hard surfaces with which non-human primates come in contact must be spot-cleaned daily and indoor primary enclosures must be sanitized at least once every two weeks or more often if necessary to prevent an excessive accumulation of dirt, debris, animal or food waste, or disease hazards.

If the species scent mark, the surfaces must be sanitized or replaced at regular intervals as determined by the attending veterinarian in accordance with generally accepted professional and husbandry practices.

3.131 (a) REPEAT

SANITATION.

The enclosure housing at least twenty-four degus has a severe build-up of food waste, soiled bedding and/or animal waste within the enclosure. The waste and soiled bedding visible along the glass enclosure walls is caked on to the side of the enclosure and is several inches thick. There is a clean layer of bedding present on top of the soiled bedding. There is a thin layer of grime, dirt and/or waste covering the inside walls of the enclosure. The enclosure is made of clear glass and this layer of dirt, grime and/or waste makes it difficult to see in to the enclosure.

Failure to clean animal enclosures can lead to health hazards, pests and odors. Enclosures shall be cleaned and soiled bedding and excreta shall be removed from primary enclosures as often as necessary to prevent contamination of the animals contained therein, to minimize disease hazards and to reduce odors.

Prepared By:

HEATHER COLE, V M O

HEATHER COLE, V M O

USDA, APHIS, Animal Care

Date:

Title:

VETERINARY MEDICAL OFFICER Inspector 6026

Mar-04-2015

Received By:

(b)(6), (b)(7)(c)

Date:

Title:

Mar-04-2015

Inspection Report

This is a focused inspection to assess the indoor housing facilities, animal health, feeding, watering, and shelter inspection and exit branding conducted with the owner.

Prepared By:

HEATHER COLE, V M O

Title:

HEATHER COLE, V M O USDA, APHIS, Animal Care
VETERINARY MEDICAL OFFICER/Inspector 6026

Date: _____

Mar-04-2011

Received By:

(b)(6),(b)(7)(c)

Date:

Mar-04-2015



Inspection Report

The licensee must ensure that hard surfaces with which the nonhuman primates come in contact are spot cleaned daily and sanitized at least every two weeks. Furthermore, the licensee must ensure that all other surfaces of the nonhuman primate housing facilities are cleaned and sanitized when necessary to satisfy generally accepted husbandry standards and practices.

3.76 (b)

INDOOR HOUSING FACILITIES.

There was a strong, foul odor of fecal waste and ammonia in the "education building". This room housed two bush babies. The air in that room also seemed stagnant. The room had no windows or exhaust/ventilation portals. The licensee stated that fans are used when needed to move the air. However, the licensee keeps the door to the room shut so this simply moves the air around the room but does not bring in fresh air or expel the odor-filled air. Air which is not properly ventilated can result in respiratory or other health problems for the animals.

The licensee must ensure that indoor housing facilities are sufficiently ventilated at all times when nonhuman primates are present to provide for their health and well being and to minimize odors and ammonia levels.

To be corrected by: June 10, 2015.

3.81 (c) (2)

ENVIRONMENT ENHANCEMENT TO PROMOTE PSYCHOLOGICAL WELL-BEING.

A male, juvenile baboon "Obi" was exhibiting abnormal behaviors associated with psychological distress. He was repeatedly pacing and head tossing. He paced nearly the entire time the inspectors observed him. He repeatedly tossed his head back when he approached a wall or corner of his enclosure. Pacing and head tossing are stereotypic behaviors in non-human primates. Stereotypic behaviors such as head tossing and pacing in primates are behaviors that indicate psychological distress. "Obi" is currently housed alone in his enclosure. He can hear other non-human primates (baboons and macaques), but only has a limited view of them through gaps in the walls. Currently there is minimal enrichment within his enclosure. There is a climbing structure in his enclosure that the licensee calls his "castle" (connected plastic barrels laying on its side) and a ladder laying on its side. Within the indoor portion of the sheltered housing facility, there are two perches and a mirror outside of the enclosure. Documentation was provided that showed food enrichment is given to all primates everyday in a variety of forms. There is no documentation that "Obi" is provided any extra food enrichment. The licensee confirmed that "Obi" has not received any special attention or enrichment due to the abnormal behaviors.

The current environmental enhancement plan does not specifically address the psychological distress associated with the abnormal behaviors exhibited by "Obi". Failure to have a special plan regarding environmental enhancement in animals showing signs of psychological distress can lead to further psychological distress or abnormal behaviors. The licensee must develop, document and follow an environmental enhancement plan that specifically addresses the environmental enhancement for "Obi" and all other non-human primates that show signs of being in psychological distress through behavior or appearance.

Prepared By:

HEATHER COLE, V M O

HEATHER COLE, V M O

USDA, APHIS, Animal Care

Date:

Title:

VETERINARY MEDICAL OFFICER Inspector 6026

May-27-2015

Received By:

(b)(6), (b)(7)(c)

Date:

Title:

May-27-2015



Inspection Report

To be corrected by: June 3, 2015

3.84 (d) **REPEAT**
CLEANING, SANITIZATION, HOUSEKEEPING, AND PEST CONTROL.

Pest control.

There are an excessive number of live and dead flies within the primate building housing two macaques and four baboons. The dead flies are located on the floor under a window directly across from the macaque enclosure. The licensee states she sprayed some of the flies with fly spray recently, but hadn't cleaned up the dead flies yet. The majority of the live flies were on a window directly adjacent to the enclosure housing one baboon.

The presence of pests can lead to health hazards for the animals. A safe and effective program for the control of pests, including flies, must be established and maintained.

3.126 (b)
FACILITIES, INDOOR.

There was a strong, foul odor of fecal waste and ammonia in the 'education building'. This room housed chinchillas, African crested porcupines, ferret foxes, and kinkajous. The air in that room also seemed stagnant. The room had no windows or exhaust/ventilation portals. The licensee stated that fans are used when needed to move the air. However, the licensee keeps the door to the room shut so this simply moves the air around the room but does not bring in fresh air or expel the odor-filled air. Air which is not properly ventilated can result in respiratory or other health problems for the animals.

The licensee must ensure that indoor housing facilities are adequately ventilated to provide for the health and to prevent discomfort of the animals at all times.

To be corrected by: June 10, 2015

3.127 (b)
FACILITIES, OUTDOOR.

Shelter from inclement weather.

There are two Highland cattle and two beef cattle in one enclosure. There is only one shelter and no separate shade structure within that enclosure. The shelter that is present is not large enough to fit all of the animals within the shelter at the same time. Failure to provide adequate shelter for animals housed outdoors does not ensure they are protected from the elements. Natural or artificial shelter shall be provided for all animals kept outdoors to afford them protection and to prevent discomfort to such animals.

To be corrected by: May 29, 2015

Prepared By:

HEATHER COLE, V M O

HEATHER COLE, V M O

USDA, APHIS, Animal Care

Date:

Title:

VETERINARY MEDICAL OFFICER/Inspector 6026

May-27-2015

Received By:

(b)(6), (b)(7)(c)

Date:

Title:

May-27-2015



Inspection Report

the vervet enclosure, which is directly adjacent to the other animal enclosures. In the "education building" housing chinchillas, kinkajous, African crested porcupines, and fennec foxes, there was a general lack of cleaning. The overhead light fixtures and outlets had turned from white to dark brown due to excessive fly specks in that room. There was an accumulation of miscellaneous items which the licensee was storing in the corner of the "education building" animal housing room, such as fans, heat pads, hamster wheels, lightbulbs, boards, empty enclosures, etc. There were multiple brooms and dust pans stored just a couple feet away from the African crested porcupine enclosure which were sitting on top of dust, waste, and rodent feces. There was also a build-up of a hard, brown material on the wire paneling of the African crested porcupine enclosure. Failure to clean housing facilities and primary enclosures can lead to disease hazards, pests and odors.

The licensee must ensure that housing facilities are kept clean in order to protect the animals from health hazards and facilitate good husbandry practices.

3.131 (d) REPEAT

SANITATION.

Pest control.

There are an excessive number of flies present within the bear shelter (one bear), on the floor of the raccoon enclosure (two raccoons) and surrounding the kinkajou enclosure within the education building (two kinkajou). The flies are present and hovering around the excess food and/or animal waste that is present within the enclosures. Maggots were also seen within the waste present in the kinkajou enclosure.

There were rodent droppings present within the food storage room within the education center. This is the food storage area for the chinchillas and fennec foxes. The rodent feces was present on the floor and objects within the room.

The presence of pests can lead to health hazards for the animals. A safe and effective program for the control of pests, including flies and rodents, must be established and maintained.

Inspection and exit briefing conducted with VMO Amanda Owens, VMO Heather Cole and the facility owner.

Prepared By:

HEATHER COLE, V M O

HEATHER COLE, V M O

USDA, APHIS, Animal Care

Date:

Title:

VETERINARY MEDICAL OFFICER Inspector 6026

May-27-2015

Received By:

(b)(6), (b)(7)(c)

Date:

Title:

May-27-2015



Inspection Report

Pamela J Sellner
Tom J Sellner
Cricket Hollow Zoo
1512 210th Street
Manchester, IA 52057

Customer ID: 5143

Certificate: 42-C-0084

Site: 001

TOM & PAMELA SELLNER

Type: ATTEMPTED INSPECTION

Date: Jun-15-2015

2.126 (b)

ACCESS AND INSPECTION OF RECORDS AND PROPERTY; SUBMISSION OF ITINERARIES.

A responsible adult was not available to accompany APHIS Officials during the inspection process at 2:00-3:00 p.m., 3:35-4:42 p.m. and 4:57-5:27 p.m. on 06/15/2015.

Prepared By:

CORBIN RANSLEM, A.C.I.

CORBIN L RANSLEM, A.C.I. USDA, APHIS, Animal Care

Title: ANIMAL CARE INSPECTOR

Inspector 6079

Date:

Jun-22-2015

Received By:

(b)(6), (b)(7)(c)

Date:

Jun-22-2015



Inspection Report

Pamela J Sellner
Tom J Sellner
Cricket Hollow Zoo
1512 210th Street
Manchester, IA 52057

Customer ID: **5143**

Certificate: **42-C-0084**

Site: 001

TOM & PAMELA SELLNER

Type: ATTEMPTED INSPECTION

Date: Jun-24-2015

2.126

(b)

REPEAT

ACCESS AND INSPECTION OF RECORDS AND PROPERTY; SUBMISSION OF ITINERARIES.

A responsible adult was not available to accompany APHIS Officials during the inspection process at approximately 11:15 am on 06/24/2015.

Prepared By:

HEATHER COLE, V M O

HEATHER COLE, V M O USDA, APHIS, Animal Care

Title:

VETERINARY MEDICAL OFFICER Inspector 6026

Date:

Jun-24-2015

Received By:

(b)(6), (b)(7)(c)

Date:

Jun-24-2015

Title:



Inspection Report

MANCHESTER, IA

Customer ID:

Certificate:

Site: 001

Type: ROUTINE INSPECTION

Date: Jul-07-2015

3.75 (c) (3) REPEAT

HOUSING FACILITIES, GENERAL.

On the indoor portion of the enclosure for the two rhesus macaques there is an excessive build-up of brown to black grime on the wire panels that make up the primary enclosure. Failure to clean and sanitize primary enclosures can lead to disease hazards for the animals. Hard surfaces with which non-human primates come in contact must be spot-cleaned daily and sanitized at least once every two weeks or more often if necessary to prevent an excessive accumulation of dirt, debris, animal or food waste, or other disease hazards.

3.84 (d) REPEAT

CLEANING, SANITIZATION, HOUSEKEEPING, AND PEST CONTROL.

There are an excessive number of flies flying around within the walkway in the back of the "reptile house". There are two ring tailed lemurs, one red ruffed lemur and a vervet located in this area. The licensee confirmed these are fruit flies. The flies are mainly located on the ceiling within the human walkways, but flies can also be seen landing on the husbandry objects within the building. The presence of pests can lead to health hazards for the animals. A safe and effective program for the control of pests, including flies, must be established and maintained.

3.125 (a) REPEAT

FACILITIES, GENERAL.

There are metal fence/gate panels in each of the primary enclosures for the goats, santa cruz sheep, and cattle with areas that are broken and in need of repair or replacement. The broken panels have sharp and/or jagged edges sticking into the areas where animals are housed. Sharp and/or jagged edges could cause injury to animals. Ensure that primary enclosures are maintained in good repair to protect the animals from injury and to safely contain the animals.

3.131 (a) REPEAT

SANITATION.

The primary enclosures for the kinkajou housed in the entryway to the reptile house and the shelter for the capybara are in need of cleaning. The kinkajou enclosure has an excess amount of dark liquid and

Prepared By:

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HEATHER COLE, V M O

USDA, APHIS, Animal Care

Date:

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VETERINARY MEDICAL OFFICER Inspector 6026

Jul-09-2015

Received By:

Date:

Title:

Jul-09-2015



Inspection Report

soiled material at the front end of the enclosure that is attracting flies. The capybara shelter has an excessive amount of soiled, wet material that is attracting flies. Excessive soiled material in animal enclosures increases the animal's risk of becoming sick and does not provide for their comfort. Enclosures must be cleaned more often and routinely to prevent a build-up of soiled material to protect the health and wellbeing of the animals.

3.131 (d)

REPEAT

SANITATION.

There are an excessive number of flies present throughout the entire facility. There are a large number of flies flying around within the walkway in the back of the "reptile house". There are two coati mundi and one serval located in this area. The licensee confirmed these are fruit flies. The flies are mainly located on the ceiling within the human walkway, but flies can also be seen landing on the husbandry objects within the building.

There are flies flying around within and around multiple enclosures throughout the facility. The areas with excessive flies include within the enclosure housing one ferret in the front of the "reptile house", within an enclosure housing three chinchillas in the "education building", in the shelter within the outdoor capybara enclosure, around and within the food bowl in the sloth enclosure, and around the area immediately adjacent to the kinkajou enclosure in the entryway to the zoo. The majority of the flies in these areas are fruit flies. This was confirmed by the licensee. The presence of pests can lead to health hazards for the animals. A safe and effective program for the control of pests, including flies, must be established and maintained.

The Direct Non-compliant Item listed under Drainage 3.127 (c) on the May 27th, 2015 inspection report has been corrected.

Inspection conducted with the owner, VMO Bart Sutherland, VMO Scott Welch, and VMO Heather Cole.

Exit Briefing conducted with the owner and VMO Heather Cole.

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Jul-09-2015

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Date:

Jul-09-2015



Inspection Report

Pamela J Sellner
Tom J Sellner
Cricket Hollow Zoo
1512 210th Street
Manchester, IA 52057

Customer ID: 5143
Certificate: 42-C-0084
Site: 001
TOM & PAMELA SELLNER

Type: ROUTINE INSPECTION
Date: Sep-22-2015

3.84 (d) REPEAT

CLEANING, SANITIZATION, HOUSEKEEPING, AND PEST CONTROL.

There are an excessive number of fruit flies present in the back of the "reptile house". The majority of the flies are located within an enclosed fruit box, however there are a large number of fruit flies in the area surrounding the fruit box. Pest control devices are present in this area of the facility, but there are still an excessive number of flies flying around and landing on the walls, fruit boxes and objects surrounding the boxes. Two ring tailed lemurs, one red ruffed lemur and a vervet are housed in this area. The licensee confirmed these are fruit flies. The presence of pests can lead to health hazards for the animals. A safe and effective program for the control of pests, including flies, must be established and maintained.

3.125 (a) REPEAT

FACILITIES, GENERAL.

The inside walls of the shelter in the enclosure housing one zebu are made of wood and the wood is severely worn and soiled. There is a very large hole present on one wall of the shelter and that same wall has a build-up of brown to black grime present mainly on the lower half of the wall. Housing facilities that are not maintained in good repair could pose an injury hazard to the animals. All housing facilities must be structurally sound and shall be maintained in good repair to protect the animals from injury.

3.131 (d) REPEAT

SANITATION.

There are an excessive number of flies present in multiple areas throughout the entire facility. There are an excessive number of fruit flies present in the back of the "reptile house". The majority of the flies are located within an enclosed fruit box, however there are a large number of fruit flies in the area surrounding the fruit box. There are two coat mundi and one serval located in this area. The licensee confirmed these are fruit flies. Pest control devices are present in this area of the facility, but there are still an excessive number of flies flying around and landing on the walls, fruit boxes and objects surrounding the boxes.

Other areas with excessive flies include the enclosure housing the capybara, the Meishan pig enclosure, and in the area immediately adjacent to the kinkajou enclosure in the entryway to the zoo. The flies within the capybara enclosure are mainly located on two halves of watermelon that are located next to the shelter.

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Sep-22-2015

Received By:

(b)(6), (b)(7)(c)

Date:

Title:

Sep-22-2015



Inspection Report

and on the ground surrounding the watermelon. The flies in the Melshan pig enclosure are located on and within the food and food receptacle for the pigs as well as the ground surrounding the food receptacle. There are a large number of flies flying around the kinkajou enclosure in the front entryway to the zoo. A few flies are located within the enclosure and are landing on the animal. The presence of pests can lead to health hazards for the animals. A safe and effective program for the control of pests, including flies, must be established and maintained.

Inspection and exit briefing conducted with the owner, AGI Chad Moore, VMO Heather Cole and IDALS.

Prepared By:

HEATHER COLE, V M O

HEATHER COLE, V M O USDA, APHIS, Animal Care

Title: VETERINARY MEDICAL OFFICER Inspector 6026

Date:

Sep-22-2016

Received By:

(b)(6), (b)(7)(c)

Date:

Sep-22-2015

Title:



Inspection Report

Pamela J Sellner
Tom J Sellner
Cricket Hollow Zoo
1512 210th Street
Manchester, IA 52057

Customer ID: 5143

Certificate: 42-C-0084

Site: 001

TOM & PAMELA SELLNER

Type: ROUTINE INSPECTION

Date: Dec-10-2015

3.131 (a)

REPEAT

SANITATION.

Cleaning of enclosures

There are multiple enclosures that have a build-up of food waste and/or animal waste within the enclosure.

There is one enclosure with twenty degus that has a build-up of feces and/or food waste on the floor of the enclosure. The waste is mainly located on one shelf and the ramp between that shelf and the next lower shelf. The waste covers nearly the entire floor of the shelf. In some areas the feces/waste is compacted and in some areas it is wet.

There is a thick build-up of brown to black grime located on a section of one wall and one area of the door frame within the coat mundi enclosure. The grime is thick and there is a small amount of bedding stuck to the soiled area on the door frame.

The capybara enclosure has an excessive amount of food and/or animal waste throughout nearly the entire floor of the enclosure. In some areas the bedding that covers the floor is wet and/or soiled with urine, feces, and/or food waste. Some of the food is fresh, but there is a significant amount of waste from old decaying food mixed in with the bedding.

Failure to clean animal enclosures can lead to health hazards, pests and odors. Primary enclosures shall be cleaned and excreta and food waste shall be removed in order to prevent contamination of the animals contained therein and to minimize disease hazards, pests and odors.

Inspection and exit briefing conducted with ACI Chad Moore, VMO Heather Cole and the Owner.

Prepared By:

HEATHER COLE, V M O

HEATHER COLE, V M O

USDA, APHIS, Animal Care

Date:

Title:

VETERINARY MEDICAL OFFICER Inspector 6026

Dec-10-2015

Received By:

(b)(6), (b)(7)(c)

Date:

Title:

Dec-10-2015



Inspection Report

Pamela J Sellner
Tom J Sellner
Cricket Hollow Zoo
1512 210th Street
Manchester, IA 52057

Customer ID: 5143

Certificate: 42-C-0084

Site: 001

TOM & PAMELA SELLNER

Type: ATTEMPTED INSPECTION

Date: Feb-29-2016

2.126 (b)

ACCESS AND INSPECTION OF RECORDS AND PROPERTY; SUBMISSION OF ITINERARIES.

A responsible adult was not available to accompany APHIS Officials during the inspection process at approximately 11:30 am on 02/29/2016.

The inspectors spoke with the licensee and the licensee stated that they had to leave for an appointment. The inspectors let the licensee know that an attempted inspection would be written.

Prepared By:

HEATHER COLE, V M O

HEATHER COLE, V M O USDA, APHIS, Animal Care

Title: VETERINARY MEDICAL OFFICER/Inspector 6026

Date:

Feb-29-2016

Received By:

(b)(6), (b)(7)(c)

Date:

Feb-29-2016



Inspection Report

Pamela J Sellner
Tom J Sellner
Cricket Hollow Zoo
1512 210th Street
Manchester, IA 52057

Customer ID: 5143

Certificate: 42-C-0084

Site: 001

TOM & PAMELA SELLNER

Type: ROUTINE INSPECTION

Date: Apr-14-2016

2.40 (b) (2)

ATTENDING VETERINARIAN AND ADEQUATE VETERINARY CARE (DEALERS AND EXHIBITORS).

A brown wether goat had front hooves that were overgrown and curled sideways and it was walking stiffly on its front legs. The licensee reported that the goat had been trimmed in December 2015 and that the facility planned to trim his hooves soon. If left uncorrected, overgrown hooves can be painful and cause other parts of the animals legs to begin to have problems and pain. Ensure that animals' hooves are trimmed and maintained before the animals' ability to walk normal is affected.

Note: Licensee trimmed this animal's hooves prior to the exit interview.

3.83

WATERING.

Three dead flies and a build up of green material were present inside of the macaques' water receptacle during the time of inspection. Dead flies and green material are sources of contamination and could make animals sick.

Thoroughly clean and sanitize the macaques' water receptacle to assure that the animals have clean, potable drinking water.

To be corrected: 4-15-16

3.131 (d)

SANITATION.

Excessive amounts of black flies and fruit flies are present inside of the educational building. The flies were observed near, in, and on the animals' enclosures. Fly spray, a single sticky fly trap, and fly bait are currently being used at the facility; however, these methods are not effectively controlling the fly population. Flies can carry and spread disease.

Establish and maintain an effective program to control the flies at the facility to promote animal health.

To be corrected: 4-21-16

Prepared By:

CHAD MOORE, A C I

CHAD T MOORE, A C I

USDA, APHIS, Animal Care

Date:

Title:

ANIMAL CARE INSPECTOR

Inspector 1046

Apr-14-2016

Received By:

(b)(6), (b)(7)(c)

Date:

Title:

Apr-14-2016



Inspection Report

Chad Moore ACI and Scott Welch VMD continued the inspection and exit briefing with the facility owner.

Prepared By:

CHAD MOORE, A C I

Title:

CHAD T MOORE, A C I
ANIMAL CARE INSPECTOR

USDA, APHIS, Animal Care

Inspector 1046

Date:

Apr-14-2016

Received By:

(b)(6), (b)(7)(c)

Date:

Apr-14-2016

Title:



Inspection Report

Pamela J Sellner
Thomas J Sellner
1512 210th Street
Manchester, IA 52057

Customer ID: **5143**
Certificate: **42-C-0084**
Site: 001
TOM & PAMELA SELLNER

Type: ROUTINE INSPECTION
Date: 15-AUG-2016

2.40(b)(2) REPEAT

ATTENDING VETERINARIAN AND ADEQUATE VETERINARY CARE (DEALERS AND EXHIBITORS).

Three of the young degus in the degu enclosure within the "reptile building" have excessive hair-loss. The hair is mainly missing from the front third of their bodies. On each of the three animals there is some hair missing on the backs of their heads and at the base of their tails. The licensee states that she has not spoken to the veterinarian regarding the hair-loss. Hair-loss can be a sign of poor health, environmental conditions, or compatibility issues in the group. A veterinarian must be consulted regarding the hair-loss in order to ensure that an accurate diagnosis is obtained and an appropriate treatment plan is developed and followed. This information, including the diagnosis, treatment and resolution of the condition, must be documented and made available to the inspector upon request.

3.11(d)

CLEANING, SANITIZATION, HOUSEKEEPING, AND PEST CONTROL.

One of the wolf hybrids had several flies sitting on the tips of its ears. The animal was seen occasionally shaking its head, but the flies did not come off. No open wounds were visible on the ears, however, the inspectors were only able to view the animal cage-side. The licensee stated that she had previously spoken with the veterinarian regarding fly control for the wolf hybrids and normally treats them, but had not recently treated the animals or the environment. Failure to provide pest control for flies can lead to health issues for the animals. An effective program for the control of insects, including flies, must be established and maintained so as to promote the health and well-being of the animals.

To be corrected by: August 18, 2016

3.75(c)(2)

HOUSING FACILITIES, GENERAL.

Prepared By:

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HEATHER COLE USDA, APHIS, Animal Care

Title: VETERINARY MEDICAL OFFICER, 6026

Received By:

(b)(6), (b)(7)(c)

Title: OWNER

Date:
15-SEP-2016

Date:
15-SEP-2016



Inspection Report

There is one enclosure wall within the outdoor portion of the baboon housing facility that separates two baboon enclosures. The enclosure wall is made of wood panels. The wood is worn and soiled. There are some areas where patches have been placed. The edges of the patches are chewed and/or worn with rough edges. In some areas, there are holes that have been chewed and/or worn through the wood. The chewed and worn areas are rough and dirt and/or dust is embedded in the wood. The licensee states she has replaced some of the wood, but the animals have continued to destroy the wall of wood. There are a total of four baboons in the two affected enclosures. Worn surfaces are difficult to clean and surfaces that cannot be readily cleaned can increase disease hazards for the animals. The licensee must ensure that surfaces of non-human primate housing facilities that cannot be readily cleaned and sanitized are replaced when worn or soiled.

To be corrected by: September 16, 2016

3.75(c)(3)

REPEAT

HOUSING FACILITIES, GENERAL.

There are excessive cobwebs throughout the "primate building". The heaviest cobwebs are mainly in the area near the two macaques. The cobwebs are thick and cover the light fixtures in this portion of the housing facility. There is a plastic playhouse in the outdoor portion of the same macaque enclosure that has a significant amount of dust, dirt, grime and/or debris covering the surface of the structure. There is also a stack of crates containing fruits and vegetables that has leaked on the floor next to the same macaque enclosure which is attracting pests (flies) to the area. Failure to clean housing facilities and enrichment items within primary enclosures can lead to disease hazards, pests and odors. The licensee must ensure that hard surfaces with which the nonhuman primates come in contact are spot cleaned daily and sanitized at least every two weeks. Furthermore, the licensee must ensure that all other surfaces of the nonhuman primate housing facilities are cleaned and sanitized when necessary to satisfy generally accepted husbandry standards and practices.

3.75(e)

HOUSING FACILITIES, GENERAL.

There is one pile of food in crates (mainly potatoes and bread items) that is located just outside the door to the "primate building". Some of the food appears to be old and/or moldy and it is attracting an excessive number of flies. The licensee states that the food was stacked nice but that it's likely raccoons or another wild animal had gotten into it and made a mess. There is also a stack of crates containing food located on the floor, just inside the door, directly across from the enclosure housing two macaques. The licensee states these crates hold mainly fruits and vegetables. There is brown liquid that has leaked out from the crates on to the floor. There are an excessive number of flies present within, on and around the crates. Failure to store food properly can lead to food spoilage,

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(b)(6), (b)(7)(c)

Title: OWNER

Date:

15-SEP-2016



Inspection Report

contamination, and pest and/or vermin infestation. All supplies of food must be stored in a manner that protects the supplies from spoilage, contamination, and infestation. The food must be stored off the floor and away from the walls to allow cleaning underneath and around the supplies. Food requiring refrigeration must be stored accordingly, and all food must be stored in a manner that prevents contamination and deterioration of its nutritive value. Only the food currently being used may be kept in animal areas, and when not in actual use, open food must be kept in leak-proof containers with tightly fitting lids to prevent spoilage and contamination.

To be corrected by: August 18, 2016

3.84(d) REPEAT

CLEANING, SANITIZATION, HOUSEKEEPING, AND PEST CONTROL.

There are an excessive number of flies present inside of the "primate building". The majority of the flies are located around and within a stack of crates containing fruits and vegetables, just inside the door, directly across from the enclosure housing two macaques. The flies are present within, on and around the crates but flies were also seen in and around the macaque enclosure. The presence of pests can lead to health hazards for the animals. A safe and effective program for the control of pests, including flies, must be implemented and maintained.

3.125(a) REPEAT

FACILITIES, GENERAL.

There is one fence panel within the potbelly pig enclosure that has a rusted bottom rail. The rust has eroded the metal leaving a jagged surface that the pigs could come in contact with.

There are several enclosures ("camel enclosure", "Santa Cruz sheep enclosure", and the "llama enclosure") that are made of chain-link fence. The chain-link fence in these enclosures has curled up at the bottom and the curled-up edge has sharp points that extend into the enclosures. The affected enclosures house approximately fifty-two sheep, eleven llamas, and one camel.

Sharp and/or jagged edges could cause injury to animals. All housing facilities must be structurally sound and shall be maintained in good repair to protect the animals from injury.

3.127(b)

FACILITIES, OUTDOOR.

The "llama enclosure", housing ten llamas, and the "zebu enclosure", housing seven zebu and one Miniature Hereford, have inadequate shelter space for the number of animals in the enclosure. There is only one small shelter

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Title: OWNER

Date:

15-SEP-2016

Date:

15-SEP-2016



Inspection Report

in each enclosure. The shelters are not large enough to hold all of the animals housed in that enclosure. Failure to provide adequate shelter for animals housed outdoors does not ensure they are protected from the elements. Natural or artificial shelter shall be provided for all animals kept outdoors to afford them protection and to prevent discomfort to such animals.

To be corrected by: August 18, 2016

3.127(c)

FACILITIES, OUTDOOR.

The automatic waterer for the raccoons is leaking onto the ground surrounding the enclosure. The water has collected and has created a small "moat" around and under part of the enclosure. The water is dirty/muddy and has a thick layer of algae growing on top of it. There are four raccoons housed in this enclosure. Improper drainage does not ensure a clean, dry environment which can lead to pests and other health hazards for the animals. A suitable method shall be provided to rapidly eliminate excess standing water from around enclosures.

To be corrected by: August 23, 2016

3.130

WATERING.

The water receptacle within the capybara enclosure contains green water, dirt and/or debris. There are also small insects swimming within and on top of the water. Lack of clean water creates a health hazard for the animals. The licensee must ensure that potable water is offered to the animals as often as necessary to provide for their health and comfort. All water receptacles shall be kept clean and sanitary.

Corrected the day of the inspection.

3.131(a) REPEAT

SANITATION.

The capybara enclosure, a cement bowl in the enclosure housing four raccoons, and the shelters for the two black bears are all in need of cleaning.

The shelter within the capybara enclosure contains an excessive amount of waste (food waste, soiled bedding, and/or animal waste) and the "pool"/water bucket has an excessive amount of animal waste in it. The waste/soiled material is attracting an excessive number of flies.

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Received By:

(b)(6), (b)(7)(c)

Title: OWNER

Date:

15-SEP-2016

Date:

15-SEP-2016



Inspection Report

The concrete bowl "catching" water from the automatic waterer in the raccoon enclosure has a thick layer of brown/green algae coating the inside surface and one side of the bowl.

The floor within the shelter area for the two black bears has several inches thick of old bedding, food and/or animal waste present and it is attracting flies.

Failure to clean animal enclosures can lead to health hazards, pests and odors. Primary enclosures shall be cleaned and excreta and other waste shall be removed in order to prevent contamination of the animals contained therein and to minimize disease hazards, pests and odors.

3.131(d) REPEAT

SANITATION.

There are an excessive number of flies present in multiple areas throughout the entire facility. Areas with excessive flies include the enclosure housing the capybara, the Meishan pig enclosure, the black bear enclosure, and in the Kodiak bear enclosure.

The flies within the capybara enclosure are mainly located on and around the soiled material within the shelter, on the shelter, on two halves of watermelon that are located next to the shelter and on the ground surrounding the watermelon.

The flies in the Meishan pig enclosure are located on the two pigs in the enclosure and areas immediately surrounding the pigs.

The flies in the black bear enclosure, housing two black bears, are located on the old bedding, food and/or animal waste present on the ground within the shelter.

There are a large number of flies located within the Kodiak bear enclosure on the ground in, and adjacent to, their feeding area. There were also an excessive number of flies seen on the animals. There are five bears in this enclosure.

Small, less than one centimeter long, white, worm-like insects (the licensee confirmed these were maggots) were seen crawling on the floor and bedding within the skunk enclosure, housing one skunk, in the back of the "reptile building". This was corrected during the inspection.

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Title: OWNER

Date:

15-SEP-2016

Date:

15-SEP-2016



Inspection Report

The facility has a few provisions for fly control, but they are not effectively controlling the fly population. The presence of pests can lead to health hazards for the animals. A safe and effective program for the control of pests, including flies, must be implemented and maintained.

An inspection was conducted on August 15, 2016 and an exit briefing was conducted on August 16, 2016 with the owner, ACI Chad Moore, and VMO Heather Cole.

The inspector completed this inspection report when Animal Care was transitioning to a new information management system. Because the inspector re-typed the inspection report into the new system when it was deployed, the "prepared by" date on this inspection report is different than the date the inspector prepared the original inspection report, which occurred on August 16, 2016.

Additional Inspectors

Chad Moore, Animal Care Inspector

Prepared By:

HEATHER COLE, D V M

HEATHER COLE USDA, APHIS, Animal Care

Title: VETERINARY MEDICAL OFFICER, 6026

Date:
15-SEP-2016

Received By:

(b)(6), (b)(7)(c)

Title: OWNER

Date:
15-SEP-2016



Cust No	Cert No	Site	Site Name	Inspection
5143	42-C-0084	001	PAMELA J SELLNER THOMAS J SELLNER	15-AUG-16

Count	Species
000001	Cow/ox/watusi
000002	Patagonian cavy
000001	Common marmoset
000004	Hamadryas baboon
000020	Degu
000005	Kinkajou
000002	Striped skunk
000002	South American Coati
000052	Sheep or mouflon
000007	Zebu
000009	Raccoon
000006	Pig
000002	Dog Puppy
000002	American red squirrel
000001	Serval
000002	Puma/mountain lion/cougar
000009	Domesticated Guinea pig
000002	North American black bear
000005	Brown bear
000002	Coyote
000020	Goat
000002	Greater bushbaby
000001	Capybara
000001	Bobcat
000002	Rhesus macaque
000002	Woodchuck/Groundhog
000003	Sugar glider
000001	Crested porcupine
000001	Linnes two-toed sloth
000002	Fennec fox
000012	Llama
000008	Chinchilla
000001	Vervet
000001	Domestic dromedary camel
000001	Fallow deer
000194	Total



Inspection Report

MANCHESTER, IA

Customer ID:

Certificate:

Site: 001

Type: ROUTINE INSPECTION

Date: 14-NOV-2016

3.75(c)(3)

REPEAT

HOUSING FACILITIES, GENERAL.

There is a metal ladder for enrichment within the vervet enclosure that is dirty. There is a thick layer of brown to black grime on the top (handles) of the ladder. There is an excessive amount of bird feces on and/or within all of the enclosures within the sheltered portion of the "primate building". The bird feces is mainly located on the enclosure fences of all three enclosures, housing a total of two macaques and four baboons, but there is also an excessive amount of bird feces within the macaque enclosure. The bird feces in the macaque enclosure is covering nearly the entire top of one perch and feces was seen mixed in with some of the bedding. In addition, bird droppings were located on the floor throughout the human walk-ways and on the wall separating the two rooms of baboons. Failure to clean housing facilities and enrichment items within primary enclosures can lead to disease hazards, pests and odors. The licensee must ensure that hard surfaces with which the nonhuman primates come in contact are spot cleaned daily and sanitized at least every two weeks. Furthermore, the licensee must ensure that all other surfaces of the nonhuman primate housing facilities are cleaned and sanitized when necessary to satisfy generally accepted husbandry standards and practices.

3.125(a)

REPEAT

FACILITIES, GENERAL.

There is a large gap under the fence of the Santa Cruz sheep enclosure. The gap under the fence is large enough to potentially allow the animals to leave the enclosure. The license holder indicated that some juvenile animals had left the enclosure via the gap to graze in the alleyway, but returned to the enclosure earlier this year. There are at least thirty-five sheep in this enclosure. The animals could potentially escape or predators could potentially enter the enclosure.

Repair or replace the fence to protect the animals from escape and/or injury.

Prepared By:

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Date:

14-NOV-2016

Date:

14-NOV-2016



Inspection Report

3.131(a) REPEAT

SANITATION.

Excessive animal and/or food waste is present in the shelter of the enclosure housing the single pig. The pig does not have a dry, clean place to lay down within the shelter.

Excessive amounts of bird feces are present along the wooden fence line of the zebu enclosure. The feces are concentrated above the hay and feeding area of the zebu. In addition, there is bird feces on the two plastic feeders sitting among the hay.

Excessive animal waste is present on the shelves within the enclosure containing three chinchillas. On one shelf the feces is piled up in one area, but on the rest of the shelves it is scattered throughout the shelf.

Failure to clean animal enclosures can lead to health hazards, pests and odors. Primary enclosures shall be cleaned and excreta and other waste shall be removed in order to prevent contamination of the animals contained therein and to minimize disease hazards, pests and odors.

This inspection and exit interview were conducted with the owner, VMO Heather Cole, and ACI Chad Moore.

The veterinary care item listed under 2.40 (b)(2) on the August 15, 2016 inspection report has been corrected.

Additional Inspectors

Chad Moore, Animal Care Inspector

Prepared By:

HEATHER COLE, D V M

HEATHER COLE USDA, APHIS, Animal Care

Title: VETERINARY MEDICAL OFFICER 6026

Received By:

Title:

Date:

14-NOV-2016

Date:

14-NOV-2016



Inspection Report

MANCHESTER, IA

Customer ID:

Certificate:

Site: 001

Type: ROUTINE INSPECTION

Date: 27-FEB-2017

2.40(b)(2)

REPEAT

ATTENDING VETERINARIAN AND ADEQUATE VETERINARY CARE (DEALERS AND EXHIBITORS).

A Jacob sheep's front right horn has grown and curled back toward's its right eye. The horn was pushing against the upper eyelid, causing its third eyelid to move out slightly over the eyeball. The third eyelid moving out over the eye is a sign that the horn is pushing against the eyeball. The licensee said they trim horns regularly to prevent this but that it hasn't been completed on the herd this year. Allowing horns to curl back against the sheep's face/head can cause pain and further health problems. The facility must have the attending veterinarian evaluate this sheep's eye and follow the veterinarian's treatment plan. Documentation of the treatment plan needs to be available for future inspections.

3.84(d)

REPEAT

CLEANING, SANITIZATION, HOUSEKEEPING, AND PEST CONTROL.

An excessive amount of black flies were present in the area where a vervet is housed. Excessive flies in areas where animals are housed can cause disease and spread disease from one animal to another. Ensure that the buildings are maintained in a manner so that there are not excessive flies and that adequate pest control measures are in place.

3.125(a)

REPEAT

FACILITIES, GENERAL.

The den area for three kodiak bears has a hole dug out from the the back southeast corner that is big enough that a bear could stick its paw out. Holes underneath enclosure walls could cause animal injury by entrapment or if not corrected promptly could create conditions for animals to escape. Ensure that the areas in and around enclosures are maintained secure and safe at all times.

Prepared By:

MOORE CHAD, A C I

MOORE CHAD, A C I USDA, APHIS, Animal Care

Title: ANIMAL CARE INSPECTOR 1046

Received By:

Title:

Date:

27-FEB-2017

Date:

27-FEB-2017



Inspection Report

3.129(a)

FEEDING.

In the education building, three food bins storing carrots, apples, oranges, and other various produce are stored for animal feed. A mouse was observed in the middle produce bin after lifting the top bin. Rodents such as mice can contaminate feed. Feeding contaminated produce can make animals ill.

Assure that the animals' food is free from contamination. Assure that food is stored in a manner that prevents contamination from vermin.

To be corrected: 3-2-17

3.131(a) REPEAT

SANITATION.

Excessive feces are present in the outdoor enclosure containing four adult raccoons. Two large piles of feces have accumulated in the corners of the enclosure. Feces can produce odors and cause disease hazards that affect animals.

Clean and sanitize the affected areas of the enclosure and repeat often enough to prevent build up.

3.131(d) REPEAT

SANITATION.

An excessive amount of black flies were present in the area where the serval, African crested porcupine, and two coatimundis are housed. (This is the same area where the vervet is housed). Excessive flies in areas where animals are housed could cause disease and spread disease from one animal to another. Ensure that the buildings are maintained in a manner so that there are not excessive flies and that adequate pest control measures are in place.

This inspection and exit interview were conducted with the owner.

Additional Inspectors

Welch Scott, Veterinary Medical Officer

Prepared By:

MOORE CHAD, A C I

MOORE CHAD, A C I USDA, APHIS, Animal Care

Title: ANIMAL CARE INSPECTOR 1046

Received By:

Title:

Date:

27-FEB-2017

Date:

27-FEB-2017



Inspection Report

MANCHESTER, IA

Customer ID:

Certificate:

Site: 001

Type: ROUTINE INSPECTION

Date: 15-MAY-2017

2.40(b)(2)

REPEAT

ATTENDING VETERINARIAN AND ADEQUATE VETERINARY CARE (DEALERS AND EXHIBITORS).

A capybara had a lumpy area on the lower left jaw that was raised, hairless, and was reddened. The facility said they had not previously observed this lump and has not had the veterinarian evaluate it to decide if it needs treatment. A raised lump could be a sign of various types of possible sicknesses or previous injury to the jaw area. To prevent any pain, worsening condition, or spreading to other animals; the facility must have the attending veterinarian diagnose what the raised lump is and ensure that appropriate veterinary treatment is administered to the capybara.

3.80(a)

PRIMARY ENCLOSURES.

The enclosure housing the single male baboon is in disrepair. The middle board on the bottom front of the enclosure has cracked and warped inward (toward the enclosure) from the top and bottom adjoining boards. Sunlight was observed through the resulting gap. The baboon could potentially get his fingers stuck or injured in this area. Additionally, the animal could escape if the condition of the board continues to deteriorate.

Repair or replace the affected board.

To be corrected: 5-22-17

3.125(a)

REPEAT

FACILITIES, GENERAL.

The chinchilla enclosure had a hole rusted through the metal resting platform. This hole was big enough that a chinchilla leg could fit through and it had rough edges around the hole that chinchillas could contact. A hole in an enclosure with rough edges could cause injury to animals. Enclosures for animals must be free from rough and sharp edges and maintained in a manner to prevent injury.

Prepared By:

MOORE CHAD, A C I

MOORE CHAD, A C I USDA, APHIS, Animal Care

Title: ANIMAL CARE INSPECTOR 1046

Received By:

Title:

Date:

15-MAY-2017

Date:

15-MAY-2017



Inspection Report

3.126(b)

FACILITIES, INDOOR.

The indoor area where the serval and skunk are housed has feeder rats and mice housed across the aisle. In this area, there were strong pungent odors coming from the feeder rodent enclosures. The rodent enclosures were excessively soiled. These strong odors can cause health problems and discomfort for regulated animals in the area such as the serval and skunk. The facility must ensure adequate fresh air is available for the serval and skunk by cleaning the feeder rodent enclosures more often while ensuring that adequate fresh air flow is available at all times.

Correct by 5/17/18

3.131(d)

REPEAT

SANITATION.

There were excessive amounts of flies in the two-toed sloth room/enclosure during the time of inspection. The flies were located on the walls and on the floor, but were concentrated on and around the fluorescent light. There were no provisions for fly control during the time of inspection. Flies carry and spread diseases that affect animals.

Assure that provisions for fly control are implemented and maintained inside of the two-toed sloth room/enclosure.

This inspection and exit interview were conducted with the owner.

Additional Inspectors

Welch Scott, Veterinary Medical Officer

Prepared By:

MOORE CHAD, A C I

MOORE CHAD, A C I USDA, APHIS, Animal Care

Title: ANIMAL CARE INSPECTOR 1046

Received By:

Title:

Date:

15-MAY-2017

Date:

15-MAY-2017



Inspection Report

MANCHESTER, IA

Customer ID:

Certificate:

Site: 001

Type: ATTEMPTED INSPECTION

Date: 01-AUG-2017

2.126(b)

ACCESS AND INSPECTION OF RECORDS AND PROPERTY; SUBMISSION OF ITINERARIES.

A responsible adult was not available to accompany APHIS Officials during the inspection process at 12:55 pm on 01-Aug-17. The inspectors knocked on the facility door, called the provided contact number, and waited in driveway for approximately one hour in attempts to contact the licensee. All attempts were unsuccessful.

A responsible person shall be available to conduct an inspection during business hours.

Additional Inspectors

Welch Scott, Veterinary Medical Officer

Prepared By:

MOORE CHAD, A C I

MOORE CHAD, A C I USDA, APHIS, Animal Care

Title: ANIMAL CARE INSPECTOR 1046

Date:

04-AUG-2017

Received By:

Title:

Date:

04-AUG-2017



Inspection Report

Terrill Al-Saihati
The Camel Farm
15672 South Avenue 1 E
Yuma, AZ 85365

Customer ID: **3826**

Certificate: **86-C-0102**

Site: 001

TERRILL AL-SAIHATI

Type: ROUTINE INSPECTION

Date: Apr-28-2015

No non-compliant items identified during this inspection.

Inspection and exit interview conducted with facility representative.

Prepared By:

AARON RHYNER, V M O

AARON RHYNER, V M O USDA, APHIS, Animal Care

Title: VETERINARY MEDICAL OFFICER Inspector 6077

Date:

Apr-28-2015

Received By:

(b)(6),(b)(7)(c)

Date:

Apr-28-2015

Title:



Inspection Report

Terrill Al-Saihati
The Camel Farm
15672 South Avenue 1 E
Yuma, AZ 85365

Customer ID: 3826
Certificate: 86-C-0102
Site: 001
TERRILL AL-SAIHATI

Type: ROUTINE INSPECTION
Date: Aug-21-2015

2.40 (a) (1)

ATTENDING VETERINARIAN AND ADEQUATE VETERINARY CARE (DEALERS AND EXHIBITORS).

***There was no program of veterinary care available for review at the time of the inspection. The written program of veterinary care is needed to ensure that the facility understands the expectations of the attending veterinarian in regards to the veterinary care of regulated animals. It outlines preventive veterinary care practices, such as deworming and vaccinations. The facility should ensure that the written program of veterinary care is available for review during all USDA inspections.

To be corrected by 9/4/15.

2.40 (b) (2)

DIRECT NCI

ATTENDING VETERINARIAN AND ADEQUATE VETERINARY CARE (DEALERS AND EXHIBITORS).

***There was 1 female brown gobex that had long toenails on both front limbs that were affecting her gait (VMO observed the gobex to be partially lame). Lameness is an indicator of disease and often pain. Failure to maintain the toenails of the animals can result in delays of appropriate care and prolong suffering of the animal. This animal's toenails should be trimmed appropriately and the facility should maintain a program of appropriate hoof and toenail care.

To be corrected by 8/25/15.

3.125 (a)

REPEAT

FACILITIES, GENERAL.

***The enclosure housing 2 kinkajous has twisted enclosure wire with sharp points. The sharp points pose a risk of injury to the animals and can decrease the structural stability of the structure. The affected structures must be repaired or replaced. Housing facilities shall be structurally sound and shall be maintained in good repair to protect the animals from injury and to contain the animals.

3.131 (a)

SANITATION.

***In the enclosure housing 7 goats/ibex, there was an excessive accumulation of feces present on the

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Date:

Aug-21-2015

Received By:

(b)(6),(b)(7)(c)

Date:

Aug-21-2015

Title:



Inspection Report

ground. Due to the accumulation, the animals could not lay in their enclosure without becoming contaminated by the waste material. Animal enclosures must be cleaned routinely in order to provide for appropriate animal husbandry standards, to reduce disease transmission, and to prevent the animals from becoming contaminated or soiled. The licensee must clean these enclosures and ensure that all enclosures housing animals are cleaned as often as necessary to promote appropriate husbandry standards.

To be corrected by 8/28/15.

The inspection and exit briefing were conducted on-site with the animal manager and the owner.

Prepared By:

AARON RHYNER, V M O

AARON RHYNER, V M O USDA, APHIS, Animal Care

Title: VETERINARY MEDICAL OFFICER Inspector 6077

Date:

Aug-21-2015

Received By:

(b)(6),(b)(7)(c)

Date:

Aug-21-2015



Inspection Report

Terrill Al-Saihati
The Camel Farm
15672 South Avenue 1 E
Yuma, AZ 85365

Customer ID: 3826
Certificate: 86-C-0102
Site: 001
TERRILL AL-SAIHATI

Type: ROUTINE INSPECTION
Date: Nov-10-2015

2.40 (b) (2) REPEAT DIRECT NCI

ATTENDING VETERINARIAN AND ADEQUATE VETERINARY CARE (DEALERS AND EXHIBITORS).

***There is 1 female camel that had difficulty rising and when standing, was weak in the hind limbs. The VMO observed the camel while lying down and asked the animal manager if anything was wrong with it. The animal manager responded "that is the camel that had the broken back about 7 years ago. She just needs to be put down". The VMO asked the animal manager why he thought the animal needs to be "put down". The animal manager responded "she is old, she lays down most of the time, has problems getting up and down and she just needs to go".

The VMO asked the animal manager to get the camel up. When attempting to do so, the camel was reluctant to rise and on the first attempt, stumbled and fell to the ground from a kneeling position. The animal manager attempted again to get the camel up, and once in a standing position, the camel appeared weak in the hind limbs. She appeared to shift her weight to her front limbs and move her hind limbs in a "tucked" position beneath her stomach.

Lameness is an indicator of disease and often pain. It can result from numerous causes including both infectious and non-infectious. Failure to contact the attending veterinarian regarding the diagnosis and treatment can result in delays of appropriate care and prolong suffering of the animal.

***There is 1 female sheep, which had access to the field, that was squinting her right eye. There was no discharge from the right eye. Squinting can be a sign of eye disease. Depending on the cause, this condition can be both progressive and painful.

The licensee must have these animals examined by a veterinarian by 5:00 p.m on November 13, 2015 to obtain accurate diagnoses and appropriate treatment plans for the issues cited above. The outcome of this consultation must be provided to the inspector upon request. This documentation should include the veterinary diagnosis, all diagnostic tests and the outcome of those tests that were performed by the veterinarian, any medications prescribed along with the dosing instructions, and entries on a log and/or calendar and/or animal health record that list when the medication is administered to the animals.

There should also be an entry at the end of the treatment to document the health status and condition of each animal at that point, to indicate a time frame to address current issues that require further veterinary

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Title: VETERINARY MEDICAL OFFICER Inspector 6077

Date:
Nov-10-2015

Received By:

(b)(6),(b)(7)(c)

Title:

Date:
Nov-10-2015



Inspection Report

treatment, and the need for follow-up and any further veterinary care prescribed.

3.125 (a) REPEAT FACILITIES, GENERAL.

*** The chain link material in the enclosure housing 9 goats and sheep is turned up and in with several sharp points. The fencing material was not maintained in good repair to protect the animals from injury or to contain the animals. Failure to maintain housing facilities in a structurally sound manner can cause injury to the animals. The affected structures must be repaired or replaced and all housing facilities should be maintained and kept structurally sound to protect and contain the animals moving forward.

3.131 (a) REPEAT SANITATION.

***In the enclosure housing 9 goats/ibex, there was an excessive accumulation of feces present on the ground. Due to the accumulation, the animals could not lay in their enclosure without becoming contaminated by the waste material. Animal enclosures must be cleaned routinely in order to provide for appropriate animal husbandry standards, to reduce disease transmission, and to prevent the animals from becoming contaminated or soiled. The licensee must clean these enclosures and ensure that all enclosures housing animals are cleaned as often as necessary to promote appropriate husbandry standards.

***The female brown gobex, cited under 2.40(b)(2) DIRECT on inspection report dated Aug-21-2015, for long hooves and lameness, has received appropriate care. The VMO observed this animal on today's inspection and had no concerns regarding its care.

Inspection was conducted with the animal manager. Exit briefing was conducted on-site with facility owner.

Prepared By:

AARON RHYNER, V M O

AARON RHYNER, V M O USDA, APHIS, Animal Care

Title: VETERINARY MEDICAL OFFICER Inspector 6077

Date:

Nov-10-2015

Received By:

(b)(6),(b)(7)(c)

Date:

Nov-10-2015

Title:



Inspection Report

Terrill Al-Saihati
The Camel Farm
15672 South Avenue 1 E
Yuma, AZ 85365

Customer ID: **3826**
Certificate: **86-C-0102**
Site: 001
TERRILL AL-SAIHATI

Type: ROUTINE INSPECTION
Date: Dec-10-2015

No non-compliant items identified during this inspection.

This was a focused inspection regarding the two animals (1 female sheep and 1 female camel) cited under 2.40 (b)(2) DIRECT on the inspection report dated Nov-10-2015. It was confirmed with the facility attending veterinarian that the animals were examined and are currently under veterinary care.

Exit interview was conducted via telephone with facility owner.

Prepared By:

AARON RHYNER, V M O

AARON RHYNER, V M O USDA, APHIS, Animal Care

Title: VETERINARY MEDICAL OFFICER Inspector 6077

Date:
Dec-10-2015

Received By:

(b)(6),(b)(7)(c)

Date:
Dec-10-2015

Title:



Inspection Report

Terrill Al-Saihati
The Camel Farm
15672 South Avenue 1 E
Yuma, AZ 85365

Customer ID: 3826
Certificate: 86-C-0102
Site: 001
TERRILL AL-SAIHATI

Type: ROUTINE INSPECTION
Date: Mar-08-2016

2.40 (b) (2) REPEAT DIRECT NCI

ATTENDING VETERINARIAN AND ADEQUATE VETERINARY CARE (DEALERS AND EXHIBITORS).

***The following animals were cited on the Jan-13-2016 inspection report and were not examined by a veterinarian:

***A female, adult brown and white gobex (Ibex x domestic goat cross) walked with an abnormal gait. On today's inspection the gobex still walked with a slightly abnormal gait and still has long hooves. The hooves on both front legs were excessively long, to the point that they were curling causing the toes to rotate up and out and the heel to drop. The licensee stated the animal had been pregnant, so they had waited to trim the hooves. Failure to appropriately maintain hooves/nails can cause gait abnormalities which could be painful or cause injuries. As part of the facility's programs of preventative veterinary care, the licensee must ensure that all animals receive appropriate hoof and nail care in a timely manner.

*** The right eye of adult male coati mundi appeared abnormal. On today's inspection, approximately half of the iris, in the right eye, had a milky-white, thickened opaque area. Eye disease can be caused by a variety of problems including infection, allergies, injury, irritation or other medical conditions and can be painful and distressing. Furthermore, not having clear vision can cause discomfort affecting the health and well-being of the animal and has the potential for injury.

***The camel calf has an abnormal swelling on its left hind hock. The swelling and condition of this animal has not changed since the Jan-13-2016 inspection. Failure to contact the attending veterinarian regarding the diagnosis, treatment and re-evaluation can result in delays of appropriate care and prolong suffering of the animal.

***The male ferret has generalized alopecia. Although some hair has regrown, the area from the shoulders to the hips on the animals back is still hairless. Alopecia is often an indicator of disease. It can result from numerous causes including both infectious and non-infectious. Failure to contact the attending veterinarian regarding the diagnosis and treatment can result in delays of appropriate care and prolong suffering of the animal.

***A newborn (24 hrs. old) male lamb appeared weak and was wheezing during the Jan 13-2016 inspection. The lamb appeared normal during today's inspection. The licensee stated she suspected the

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Title:

VETERINARY MEDICAL OFFICER Inspector 6077

Date:

Mar-08-2016

Received By:

(b)(6), (b)(7)(c)

Date:

Mar-08-2016

Title:



Inspection Report

animal had aspirated during feeding and that had caused its wheezing and weakness. Failure to contact the attending veterinarian regarding the diagnosis and treatment of weak and sick animals can result in delays of appropriate care and prolong suffering of the animal.

The licensee stated she has called the veterinarian several times regarding the above animals, but they were never examined, as described in the Jan-13-2016 inspection report.

***On today's inspection, one black goat was noted to have an abnormal swelling of its left knee. The animal caretaker stated he first noticed the hard swelling a couple of days ago. The caretaker stated he told the facility owner about the knee and to contact the veterinarian. The facility owner stated she did not know about the goat's condition and has not contacted the veterinarian regarding this animal. Swelling is an indicator of disease and can often be painful. It can result from numerous causes including both infectious and non-infectious. Failure to contact the attending veterinarian regarding the diagnosis and treatment can result in delays of appropriate care and prolong suffering of the animal.

The licensee must have all of the above mentioned animals (coati, camel calf, ferret, lamb, goats) examined by a veterinarian, to obtain accurate diagnoses and appropriate treatment plans for the issues cited above. The outcome of this consultation must be provided to the inspector upon request. This documentation should include the veterinary diagnosis, all diagnostic tests and the outcome of those tests that were performed by the veterinarian, any medications prescribed along with the dosing instructions, and entries on a log and/or calendar and/or animal health record that list when the medication is administered to the animals.

2.131 (d) (2) REPEAT HANDLING OF ANIMALS.

***Although there were no public members present during the inspection, the facility has been open to the public since the Jan-13-2016 inspection. The facility has made no changes in the number of attendants present during periods the facility is open to the public. The licensee stated to the VMO that there is no plan or provision in place for an adequate number of attendants to oversee public contact with the animals. The licensee stated they would use the two employees as attendants when the public is present. These employees would also be responsible for the husbandry and daily care of all the animals at the facility. The VMO stated to the licensee that this would still be inadequate as the employees would need to oversee the public contact, thus the husbandry and daily care would go unfinished.

3.130 REPEAT WATERING.

***Three enclosures (4 camels, 10 sheep, 8 goats) still had dirty water receptacles or water receptacles that were excessively rusted to the point they leak excessively and cannot be adequately cleaned and sanitized. Water receptacles must be maintained in a clean and sanitary condition in order to ensure that the animals are provided with clean, potable water, to minimize disease hazards and to ensure that they maintain adequate hydration. Water receptacles should be cleaned at a frequency that is adequate to maintain standard husbandry practices.

Prepared By:

AARON RHYNER, V M O

AARON RHYNER, V M O USDA, APHIS, Animal Care

Title: VETERINARY MEDICAL OFFICER Inspector 6077

Date:
Mar-08-2016

Received By:

(b)(6),(b)(7)(c)

Date:
Mar-08-2016

Title:



Inspection Report

3.131 (d)

SANITATION.

***There were several bees noted to be surrounding the waterer in the camel enclosure housing two animals. Pests can cause harm to the animals and can contaminate feed and water. The licensee must establish and maintain an effective program for the control of pests to promote the health and well-being of the animals and reduce contamination by pests in all animal areas.

To be corrected by 3/10/16.

3.132

REPEAT

EMPLOYEES.

***The facility has made no changes in the number of employees that care for the animals since the Jan-13-2016 inspection. During today's inspection, the two employees were present and involved in the daily husbandry and facility maintenance. The licensee stated to the VMO that there is no plan or provision in place for an adequate number of employees to maintain the professional husbandry standards described in the regulations and standards. Additionally, the facility has no plan for when employees call in sick, do not show up or have days off. The licensee has also stated on previous inspections to the VMO that the facility will never be in compliance, as they do not have the funds or resources to increase their staffing levels. During today's inspection, several animals were identified as still needing veterinary examination and care. Additionally the facility has been cited (repeats) for waterers needing repair or replacement and pest control.

Facilities are required to utilize a sufficient number of adequately trained employees to maintain the professional husbandry standards described in the regulations and standards to ensure that the animals are kept in appropriately maintained, sanitary facilities and receive appropriate monitoring, veterinary care, feeding, watering, and care.

The licensee must evaluate the current work load and staffing level and ensure that a sufficient number of adequately trained employees are utilized to maintain the professionally acceptable level of husbandry practices described in the regulations and standards.

The inspection was conducted with the animal caretaker.

The exit briefing was conducted with the facility owner.

Prepared By:

AARON RHYNER, V M O

AARON RHYNER, V M O USDA, APHIS, Animal Care

Title:

VETERINARY MEDICAL OFFICER Inspector 6077

Date:

Mar-08-2016

Received By:

(b)(6),(b)(7)(c)

Date:

Mar-08-2016

Title:



Inspection Report

Terrill Al-Saihati
The Camel Farm
15672 South Avenue 1 E
Yuma, AZ 85365

Customer ID: 3826
Certificate: 86-C-0102
Site: 001
TERRILL AL-SAIHATI

Type: ROUTINE INSPECTION
Date: Apr-27-2016

2.40 (b) (2) REPEAT

ATTENDING VETERINARIAN AND ADEQUATE VETERINARY CARE (DEALERS AND EXHIBITORS).

***The tail tip of the male coati mundi had an active lesion requiring veterinary attention/treatment. The lesion on end of the tail tip was circular in shape measuring approximately 0.5 inches, was moist and reddened.

The licensee must have this animal examined by a veterinarian by 5:00 p.m on May 9, 2016, to obtain accurate diagnoses and appropriate treatment plans for the issue cited above. The outcome of this consultation must be provided, in writing, to the inspector upon request. This documentation should include the veterinary diagnosis, all diagnostic tests and the outcome of those tests that were performed by the veterinarian, any medications prescribed along with the dosing instructions, and entries on a log and/or calendar and/or animal health record that list when the medication is administered to the animals.

There should also be an entry at the end of the treatment to document the health status and condition of each animal at that point, to indicate a time frame to address current issues that require further veterinary treatment, and the need for follow-up and any further veterinary care prescribed.

From this date forward, the licensee must ensure that all animals at the facility are provided with adequate veterinary care, as described by the attending veterinarian and the program of veterinary care. The program for providing adequate veterinary care shall include the use of appropriate methods to prevent, control, diagnose, and treat diseases and injuries.

2.40 (b) (3)

ATTENDING VETERINARIAN AND ADEQUATE VETERINARY CARE (DEALERS AND EXHIBITORS).

***Neither the facility employees or the licensee observed the lesion requiring veterinary attention on the male coati mundi. Daily observation of all animals is critical to ensuring that conditions that can adversely affect health and well-being are recognized in a timely manner. Additionally, when observed, problems relating to animal health or behavior must be conveyed to the attending veterinarian so that appropriate methods can be employed to ensure adequate care. Failure to properly observe and communicate health problems can result in prolonged pain and suffering and the increase risk of development of serious

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Title: VETERINARY MEDICAL OFFICER Inspector 6077

Date:
May-02-2016

Received By:

(b)(6),(b)(7)(c)

Title:

Date:
May-02-2016



Inspection Report

medical conditions. The facility must conduct daily observations of all animals to ensure that all health and behavioral concerns are found in a timely manner and appropriately communicated with the attending veterinarian.
To be corrected by 5/3/16.

2.50 (c)

TIME AND METHOD OF IDENTIFICATION.

***The four puppies on exhibit at the time of inspection did not have any identification. Official identification is needed to ensure that each animal's identity can be known with certainty and to facilitate the inspection process. The licensee must ensure that all dogs are officially identified by an APHIS approved identification method.
Corrected at the time of inspection.

2.75 (a) (1)

RECORDS: DEALERS AND EXHIBITORS.

***The licensee did not have records that contained the required information regarding the acquisition and disposition of animals used or co-mingled with animals used in regulated activities. There were no records of acquisition for the four puppies the licensee was exhibiting at the time of inspection.

Records containing the required information for animals acquired for use in regulated activities, including those offspring born on premise, need to be made and maintained in order to properly track the animal numbers and use in those activities. Each dealer and exhibitor shall use Record of Acquisition and Dogs and Cats on Hand (APHIS Form 7005) and Record of Disposition of Dogs and Cats (APHIS Form 7006) to make, keep, and maintain the required information.

Corrected at the time of inspection

3.4 (a) (1) (iii)

OUTDOOR HOUSING FACILITIES.

***The licensee was exhibiting four puppies, approximately six weeks old, in an outdoor enclosure at the time of inspection without prior approval from the attending veterinarian. The licensee stated she had put the puppies outdoors for a few hours. Young dogs must not be kept in outdoor enclosures as they are not acclimated to temperature extremes, changing weather conditions, and are susceptible to disease transmission without prior approval from the AV.

The facility must ensure sick, infirm, aged or young dogs or cats are not kept in outdoor facilities unless approved by the attending veterinarian.

Corrected at the time of inspection.

3.4 (b)

OUTDOOR HOUSING FACILITIES.

***The licensee was exhibiting four puppies, approximately six weeks old, in an outdoor enclosure at the time of inspection without a shelter structure. Without access to a shelter, dogs housed outdoors do not have protection from changing weather conditions. The facility must ensure all outdoor facilities for dogs

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Received By:

(b)(6), (b)(7)(c)

Date:

May-02-2016

Title:



Inspection Report

and cats has one or more shelter structures that are accessible to each animal.
Correct at the time of inspection.

3.8

EXERCISE FOR DOGS.

***The licensee was exhibiting four puppies, approximately six weeks old, without an exercise plan. An exercise plan is used to ensure all dogs are provided with the opportunity for exercise. The facility must develop, document, and follow an appropriate plan to provide dogs with the opportunity for exercise. In addition, the plan must be approved by the attending veterinarian. The plan must include written standard procedures to be followed in providing the opportunity for exercise and the plan must be made available to APHIS upon request.
Corrected at the time of inspection

3.125 (a) REPEAT

FACILITIES, GENERAL.

***The feeding station in the enclosure housing 5 camels is in need of repair or replacement. One of the legs on the structure is rusted with sharp, jagged edges. The feeding station poses a risk of injury to the animals and can decrease the structural stability of the structure.

*** The chain link material in the enclosure housing 1 fennec fox is twisted inward with several sharp points. The fencing material was not maintained in good repair to protect the animal from injury.

***The enclosure housing 7 sheep and 4 goats had a feeder bottom that was rusted out and missing in several sections with sharp edges. The rusted sections pose a risk of injury to the animals.

*** The chain link material in an area 7 pigs have access to is turned up and in with several sharp points. The fencing material was not maintained in good repair to protect the animals from injury or to contain the animals.

***The enclosure housing 13 goats has a metal structure that is excessively rusted at the bottom with sharp edges. The rusted sections pose a risk of injury to the animals.

Failure to maintain housing facilities in a structurally sound manner can cause injury to the animals. The affected structures must be repaired or replaced and all housing facilities should be maintained and kept structurally sound to protect and contain the animals moving forward.

3.131 (d) REPEAT

SANITATION.

***One female camel had several flies on and around her face. Due to her age and limited mobility, this camel was unable to shake off the flies as compared to the other camels. Excessive amounts of flies on or around the animals can be stressful to the animal and disease can be transmitted by the pests to the animals and can contaminate feed and water. The licensee must establish and maintain an effective program for the control of pests to promote the health and well-being of the animals and reduce

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Title: VETERINARY MEDICAL OFFICER Inspector 6077

Date:
May-02-2016

Received By:

(b)(6),(b)(7)(c)

Title:

Date:
May-02-2016



Inspection Report

contamination by pests in all animal areas.

This was corrected at the time of inspection as the licensee applied fly repellent to the animal.

Inspection was conducted with the animal manager and APHIS personnel including Compliance Specialist Jean Bolinger and Veterinary Medical Officer Aaron Rhyner.

Exit briefing was conducted with the animal manager, owner and APHIS personnel including Compliance Specialist Jean Bolinger and Veterinary Medical Officer Aaron Rhyner.

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Date:

May-02-2016

Received By:

(b)(6),(b)(7)(c)

Date:

May-02-2016

Title:



Inspection Report

Terrill Al-Saihati
The Camel Farm
15672 South Avenue 1 E
Yuma, AZ 85365

Customer ID: **3826**
Certificate: **86-C-0102**
Site: 001
TERRILL AL-SAIHATI

Type: ROUTINE INSPECTION
Date: Aug-02-2016

2.40 (b) (2) REPEAT

ATTENDING VETERINARIAN AND ADEQUATE VETERINARY CARE (DEALERS AND EXHIBITORS).

***One geriatric female camel was non-weight-bearing on her left hind limb at the time of inspection. Once standing, the female would not bear weight or would intermittently toe touch. Additionally, it was noted by APHIS personnel that her left hind limb would shake and twitch when toe-touching. Although this animal was seen by the veterinarian on July 31 2016, the veterinarian confirmed this animal was weight bearing at that time. Non weight bearing on a limb may be an indicator of pain.

***One tricolor goat was intermittently non weight bearing on its front right limb and walked semi-lame. The animal manager stated he had trimmed this animals hooves two days prior and had "nicked the quick". The manager stated after trimming the hooves, he had to apply a "kwik stop" like substance to aid on stopping the bleeding. Lameness and non weight bearing is an indicator of disease and often pain. It can result from numerous causes including both infectious and non-infectious. Failure to contact the attending veterinarian regarding the diagnosis and treatment can result in delays of appropriate care and prolong suffering of the animal.

The licensee must have these animals examined by a veterinarian by 5:00 p.m on August 10, 2016, to obtain accurate diagnoses and appropriate treatment plans for the issues cited above. The outcome of this consultation must be provided, in writing, to the inspector upon request. This documentation should include the veterinary diagnosis, all diagnostic tests and the outcome of those tests that were performed by the veterinarian, any medications prescribed along with the dosing instructions, and entries on a log and/or calendar and/or animal health record that list when the medication is administered to the animals.

There should also be an entry at the end of the treatment to document the health status and condition of each animal at that point, to indicate a time frame to address current issues that require further veterinary treatment, and the need for follow-up and any further veterinary care prescribed.

From this date forward, the licensee must ensure that all animals at the facility are provided with adequate veterinary care, as described by the attending veterinarian and the program of veterinary care. The program for providing adequate veterinary care shall include the use of appropriate methods to prevent, control, diagnose, and treat diseases and injuries.

Prepared By:

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Title: VETERINARY MEDICAL OFFICER Inspector 6077

Date:
Aug-04-2016

Received By:

(b)(6), (b)(7)(c)

Title:

Date:
Aug-04-2016



Inspection Report

***There are three pigs, housed in the indoor barn, that are in need of hoof trims. The hooves on both front legs were excessively long, extending out approximately three to five inches. Failure to appropriately maintain hooves/nails can cause gait abnormalities which could be painful or cause injuries. As part of the facility's programs of preventative veterinary care, the licensee must ensure that all animals receive appropriate hoof and nail care in a timely manner.

2.40 (b) (3) REPEAT

ATTENDING VETERINARIAN AND ADEQUATE VETERINARY CARE (DEALERS AND EXHIBITORS).

***One goat, which is currently under veterinary care, had gone several months with a skin condition that was not conveyed to the veterinarian. The animal manager stated he had noticed this condition for approximately a year and was self treating the condition for over six months with no resolve. According to the veterinarian, this animal is currently being isolated from other animals and is receiving diagnostic testing and treatment for lice or a dermatitis. The veterinarian also stated she had been notified last week regarding this animal and looked at it for the first time on July 31, 2016.

***The veterinarian was not notified regarding one female sheep that required veterinary care. When questioned about a female sheep that was singly housed at the time of inspection, the animal manager stated, this sheep was found down on the ground, with its legs splayed out paddling, some time ago (no definitive date was given). The manager stated he had "nursed this animal back from death and saved it". Additionally, the animal manager stated he had contacted the veterinarian regarding this animal. The veterinarian stated to APHIS personnel she could not recall this incident or recall being involved in the treatment of this animal.

***At the time of inspection, the veterinarian had not been notified regarding the two animals (one camel, one goat) identified during this inspection which require veterinary care. Additionally, the facility staff had not identified these animals' conditions prior to APHIS personnel identifying them.

Daily observation of all animals is critical to ensuring that conditions that can adversely affect health and well-being are recognized in a timely manner. Additionally, when observed, problems relating to animal health or behavior must be conveyed to the attending veterinarian so that appropriate methods can be employed to ensure adequate care. Failure to properly observe and communicate health problems, in a timely manner, can result in prolonged pain and suffering and the increase risk of development of serious medical conditions. The facility must conduct daily observations of all animals to ensure that all health and behavioral concerns are found in a timely manner and appropriately communicated with the attending veterinarian.

3.125 (a) REPEAT

FACILITIES, GENERAL.

***The enclosure housing approximately 26 goats had a feeder bottom that was rusted out and missing in several sections with sharp edges. The rusted sections pose a risk of injury to the animals.

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Date:

Aug-04-2016

Received By:

(b)(6), (b)(7)(c)

Title:

Date:

Aug-04-2016



Inspection Report

***The chain link material in the enclosure housing 7 pigs and 7 goats is turned up and in with several sharp points. Additionally there is a gap between the ground and the chain link approximately 8 inches. The material is not maintained in a manner to can't cause injury to the animals or securely contain them.

***There is a metal structure in an enclosure housing approximately 15 goats, that has sections of rust along its bottom with sharp edges. This structure is not structurally sound and poses a risk of injury to the animals.

***The chain link in the enclosure housing one sheep has a hole in it with sharp points protruding into the enclosure. This material poses a risk of injury to the animals.

***The chain link in the enclosure housing three deer has a hole in it with sharp points protruding into the enclosure. This material poses a risk of injury to the animals.

***The den box in the enclosure housing three female coati mundi has edges that are excessively chewed and worn. Additionally, the top of the den box has a hole in it from excessive wear that has sharp edges. This structure is not structurally sound and poses a risk of injury to the animals.

3.127 (a) REPEAT

FACILITIES, OUTDOOR.

***The enclosure housing 15 goats did not have adequate shade to protect all of the animals from direct sunlight. The area of shade provided to all animals was a 6 feet by 6 feet area. This area is not large enough to allow all of the animals within the enclosure to be protected from direct sunlight. Inadequate protection from direct sunlight may lead to overheating or discomfort from squinting.

3.127 (d)

FACILITIES, OUTDOOR.

***An approximately 60 ft. section of the perimeter fence is no longer structurally sound. The fence posts in this section are severely rusted and were broken or bent during a wind storm according to the animal manager. In this state, the perimeter fence is not structurally sound and may allow animals or persons to enter or exit the facility. The fence must be constructed so that it protects the animals in the facility by restricting animals and unauthorized persons from going through it or under it and having contact with the animals in the facility, and so that it can function as a secondary containment system for the animals.

To be corrected by 8/18/16.

Inspection was conducted with the animal manager.

Exit briefing was conducted via telephone with facility representative.

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VETERINARY MEDICAL OFFICER Inspector 6077

Aug-04-2016

Received By:

(b)(6), (b)(7)(c)

Date:

Title:

Aug-04-2016



Cust No	Cert No	Site	Site Name	Inspection
3826	86-C-0102	001	TERRILL AL-SAIHATI	02-AUG-16

Count	Species
000003	Cattle/cow/ox/watusi
000001	Agile wallaby
000002	Kinkajou
000003	South American Coati
000009	Dromedary camel
000002	Hazel dormouse
000001	Grey four-eyed opossum
000090	Goat
000003	Fallow deer
000001	Common eland
000001	Common zebra
000030	Barbary sheep
000001	Fennec fox
000010	Domestic Pig
000157	Total



Inspection Report

Terrill Al-Saihati
15672 South Avenue 1 E
Yuma, AZ 85365

Customer ID: **3826**
Certificate: **86-C-0102**
Site: 001
TERRILL AL-SAIHATI

Type: ROUTINE INSPECTION
Date: 15-NOV-2016

2.40(a)(1) CRITICAL REPEAT

ATTENDING VETERINARIAN AND ADEQUATE VETERINARY CARE (DEALERS AND EXHIBITORS).

***The written Program of Veterinary Care (PVC) on file is still inadequate, as it does not contain sufficient provisions for emergency care. The current program, under the emergency care section, simply states "mobile veterinarian". The facility uses their attending veterinarian (AV) for emergency care but has no provision for veterinary care when their AV is unavailable. From 9/10/16-9/14/16, while their AV was unavailable, one camel requiring veterinary care/euthanasia (according to facility records & personnel) did not receive veterinary care and died on 9/14/16. At the time of inspection, the licensee had not made an attempt to find another veterinarian to use.

Failure to have a complete PVC, including appropriate provisions for emergency care, could jeopardize the health and well-being of the animals. The facility should establish and maintain a PVC to include all the regulated animals at the facility and regularly scheduled visits to the premises.

2.40(b)(2) DIRECT REPEAT

ATTENDING VETERINARIAN AND ADEQUATE VETERINARY CARE (DEALERS AND EXHIBITORS).

***One female coati still has an abnormal left eye and has not been evaluated by a veterinarian. The facility/animal manager stated to APHIS staff, "the eye looks better since it exploded". When asked to clarify, the manager confirmed the eye had ruptured and was less swollen since the last inspection. At the time of inspection, the left eye was still swollen, extremely reddened, had an abnormally uneven corneal surface and some clear discharge.

Although the facility has been treating this animal, the ocular condition remains unresolved (intermittent resolution) since 5/5/16. The facility had contacted their veterinarian over the phone on 11/4/16. At that time, the veterinarian prescribed a new ointment that the facility is currently using. The animal has not been evaluated by a veterinarian since 8/25/16 and no additional diagnostic testing has been done.

Eye disease can be caused by a variety of problems including infection, allergies, injury, irritation or other medical

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Title: VETERINARY MEDICAL OFFICER, 6077

Date:
16-NOV-2016

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(b)(6), (b)(7)(c)

Title: FACILITY REPRESENTATIVE

Date:
16-NOV-2016



Inspection Report

conditions and can be painful and distressing. Furthermore, not having clear vision can cause discomfort affecting the health and well-being of the animal and has the potential for further injury.

The licensee must have this animal examined by a veterinarian by no later than 5:00 p.m on November 18, 2016, to obtain accurate diagnoses and appropriate treatment plans for the ocular issue cited above. The outcome of this consultation must be provided, in writing, to the inspector upon request. This documentation should include the veterinary diagnosis, all diagnostic tests and the outcome of those tests that were performed by the veterinarian, any medications prescribed along with the dosing instructions, and entries on a log and/or calendar and/or animal health record that list when the medication is administered to the animals.

There should also be an entry at the end of the treatment to document the health status and condition of each animal at that point, to indicate a time frame to address current issues that require further veterinary treatment, and the need for follow-up and any further veterinary care prescribed.

From this date forward, the licensee must ensure that all animals at the facility are provided with adequate veterinary care, as described by the attending veterinarian and the program of veterinary care. The program for providing adequate veterinary care shall include the use of appropriate methods to prevent, control, diagnose, and treat diseases and injuries.

***There are several animals at the facility that are in need of hoof trims (three pigs, housed in the indoor barn, 3 sheep and 3 goats) which were pointed out to the facility/animal manager during the inspection. The hooves on the animals were excessively long, extending out approximately three to five inches. Failure to appropriately maintain hooves/nails can cause gait abnormalities which could be painful or cause injuries. As part of the facilities programs of preventative veterinary care, the licensee must ensure that all animals receive appropriate hoof and nail care in a timely manner.

3.125(a) REPEAT

FACILITIES, GENERAL.

***The following enclosures are in need of repair or replacement:

Enclosure housing 11 sheep had protruding nails at the area the animals move between enclosures.

Enclosure housing 16 goats had chain link material that is turned up and in with several sharp points.

Enclosure housing 17 goats and 5 pigs had chain link material that is turned up and in with several sharp points.

The enclosures are not maintained in good repair to protect the animals from injury or to contain the animals.

Failure to maintain housing facilities in a structurally sound manner can cause injury to the animals. The affected

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16-NOV-2016

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Received By:

(b)(6), (b)(7)(c)

Title:

FACILITY REPRESENTATIVE

Date:

16-NOV-2016



Inspection Report

structures must be repaired or replaced and all housing facilities should be maintained and kept structurally sound to protect and contain the animals moving forward.

3.130

WATERING.

***Two camels did not have access to potable water. At the time of inspection, the APHIS staff noticed the water receptacle was empty for the two camels. Additionally, APHIS staff watched the male camel attempt to drink from the empty receptacle. When asked, the facility/animal manager stated the water was probably turned off during the morning cleaning and someone forgot to turn it back on. The manager turned the water back on, and the male camel drank excessively for approximately eight minutes.

Failure to provide water to the animals can be detrimental to their health, can lead to dehydrated and other serious medical problems. The facility must ensure that if potable water is not accessible to the animals at all times, it must be provided as often as necessary for the health and comfort of the animal. Frequency of watering shall consider age, species, condition, size, and type of the animal. All water receptacles shall be kept clean and sanitary. To be corrected by 11/17/16.

***The enclosure housing 3 pigs had dirty drinking water. There was a buildup of green debris on the interior surface of the receptacles along with green debris floating on top of the water. Additionally, the water was a dark brown liquid. Water receptacles must be maintained in a clean and sanitary condition in order to ensure that the animals are provided with clean, potable water, to minimize disease hazards and to ensure that they maintain adequate hydration. Water receptacles should be cleaned at a frequency that is adequate to maintain standard husbandry practices.

To be corrected by 11/17/16.

This inspection and exit interview were conducted with licensee and facility/animal manager.

Additional Inspectors

Jean Bolinger, Compliance Specialist

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Title: VETERINARY MEDICAL OFFICER, 6077

Received By:

(b)(6), (b)(7)(c)

Title: FACILITY REPRESENTATIVE

Date:

16-NOV-2016

Date:

16-NOV-2016



Cust No	Cert No	Site	Site Name	Inspection
3826	86-C-0102	001	TERRILL AL-SAIHATI	15-NOV-16

Count	Species
000003	Cattle/cow/ox/watusi
000000	Agile wallaby
000000	Kinkajou
000003	South American Coati
000008	Dromedary camel
000000	Grey four-eyed opossum
000071	Goat
000003	Fallow deer
000001	Common eland
000001	Common zebra
000041	Barbary sheep
000001	Fennec fox
000011	Domestic Pig
000143	Total



Inspection Report

Terrill Al-Saihati
15672 South Avenue 1 E
Yuma, AZ 85365

Customer ID: **3826**
Certificate: **86-C-0102**
Site: 001
TERRILL AL-SAIHATI

Type: FOCUSED INSPECTION
Date: 22-NOV-2016

No non-compliant items identified during this inspection.

This was a focused inspection regarding the female coati mundi cited on inspection report dated 15-Nov-16 under 2.40 (b)(2) DIRECT REPEAT. APHIS VMO reviewed the veterinary records for this animal. The animal was seen by a veterinarian on 11/18/16 and is currently under veterinary treatment.

Exit interview was conducted with licensee.

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Title: VETERINARY MEDICAL OFFICER 6077

Received By:

(b)(6), (b)(7)(c)

Title: FACILITY REPRESENTATIVE

Date:
22-NOV-2016

Date:
22-NOV-2016



Cust No	Cert No	Site	Site Name	Inspection
3826	86-C-0102	001	TERRILL AL-SAIHATI	22-NOV-16

Count	Species
000000	None
000000	Total



Inspection Report

YUMA, AZ

Customer ID:

Certificate:

Site: 001

Type: ROUTINE INSPECTION

Date: 07-MAR-2017

2.40(a)(1) CRITICAL REPEAT

ATTENDING VETERINARIAN AND ADEQUATE VETERINARY CARE (DEALERS AND EXHIBITORS).

***The written Program of Veterinary Care (PVC) on file is still inadequate, as it does not contain sufficient provisions for emergency care. The current program, under the emergency care section, simply states "mobile veterinarian". The facility uses their attending veterinarian (AV) for emergency care but has no provision for veterinary care when their AV is unavailable. From 11/18/16-3/07/17, while their AV was unavailable, one female coati and one female goat requiring veterinary care, (according to facility records and personnel) did not receive veterinary care or treatment. This is the critical noncompliance for this section.

*** The written Program of Veterinary Care (PVC) on file is incomplete. The attending veterinarian last signed the PVC on 09/04/15.

Failure to have a complete PVC could jeopardize the health and well-being of the animals. The facility should establish and maintain a PVC to include all the regulated animals at the facility and regularly scheduled visits to the premises. Facility visits are necessary to ensure that the Program of Veterinary Care is being understood and followed by the licensee, to check the health and well-being of the animals and to determine if changes in the Program of Veterinary Care are needed.

2.40(b)(2) DIRECT REPEAT

ATTENDING VETERINARIAN AND ADEQUATE VETERINARY CARE (DEALERS AND EXHIBITORS).

***There are three female adult pigs, housed in an indoor barn, that are in need of hoof trims, which were pointed out to the animal manager during the inspection. The hooves on the animals were excessively long, extending out approximately four to six inches. Failure to appropriately maintain hooves/nails can cause gait abnormalities which could be painful or cause injuries. As part of the facility's programs of preventative veterinary care, the licensee must ensure that all animals receive appropriate hoof and nail care in a timely manner.

The licensee must ensure that all animals showing potential signs of veterinary medical problems are evaluated in a

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ENGEL DOMINIQUE

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Received By:

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08-MAR-2017

Date:

08-MAR-2017



Inspection Report

timely manner by a veterinarian as part of the facility's programs of adequate veterinary care and that the facility use appropriate methods to prevent, control, diagnose, and treat diseases, and injuries at all times. Additionally, veterinary and behavioral observations and evaluations by the veterinarian and facility staff must be documented and readily available to APHIS upon request and include sufficient detail to demonstrate the provision of adequate veterinary care.

2.40(b)(3) DIRECT REPEAT

ATTENDING VETERINARIAN AND ADEQUATE VETERINARY CARE (DEALERS AND EXHIBITORS).

***An adult female Coati named "Shyla" still has an abnormal left eye which has significantly worsened in severity since the previous inspection. The eye is protruding and extremely swollen, approximately the size of a golf ball. It is an extremely reddened mass of tissue and has a dark crusty scab on approximately one third of the surface area. Fluid appeared to be leaking out of the eye onto her face. There were flies observed in the open wound around and on the eye. APHIS staff observed the animal clacking its teeth loudly and pacing up in the top corner of the enclosure. The overall condition of the animal has changed since the last inspection. The animal now has a dull hair coat and appears to have lost weight. The animal was shaking her head and pawing at the injured eye frequently during the inspection. She appeared to be suffering, as she exhibited signs of extreme stress and discomfort for the species.

The last time the attending veterinarian examined the animal was on November 18, 2016. On January 27, 2017 the licensee noted in her log that she spoke to the attending veterinarian and discussed the eye problem, but that the AV was out of town and would come by to see the animal when she gets back. There was no notation of any attempt to contact an emergency or alternate veterinarian at any time during the months of November through March the animal's deteriorating condition.

As of today, March 7, 2017 the coati has still not been seen by any veterinarian despite the condition of the eye continuing to worsen as noted and observed by the facility staff. They have also completely stopped providing any treatment and have discontinued recommended treatment by the AV. Failure to properly communicate animal health issues to the attending veterinarian in a timely manner can result in prolonged pain and suffering for the animal and potentially worsen a current medical condition.

***An intact adult male tricolor goat was non-weight bearing on his right front limb. The goat was lame at the walk. The animal manager had not noticed that the goat was lame until the time of the USDA inspection. Lameness and non-weight bearing is an indicator of disease and often pain. It can result from numerous causes including both infectious and non-infectious. Failure to contact the attending veterinarian regarding the diagnosis and treatment

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Date:

08-MAR-2017



Inspection Report

can result in delays of appropriate care and prolong suffering of the animal.

***A juvenile female goat had abnormal skin covering the tips of her ears. The skin was crusty and dry, with large areas of hair loss. Her overall hair coat appeared dull and she was seen to be scratching her shoulder along the chain link fencing. The animal manager stated that he had not noticed this skin condition prior to the USDA inspection. Skin disease can be caused by a variety of problems, including infection, allergies, injuries, irritation, or other medical conditions and can be painful and distressing to the animal.

***In an enclosure containing three fallow deer and a camel, a female fallow deer had a fresh wound over the left point of the shoulder. The wound was approximately two inches in diameter. There was complete hair loss at the site of the wound, with reddened tissue exposed. A clump of white hair was seen beside a metal feeder. The animal manager stated that he had introduced the deer and the camel into the same enclosure two days ago. Injuries, diseases, and medical conditions that are not treated properly (as directed by a veterinarian) may be painful and can lead to prolonged suffering.

***A young gray and white female goat, which was being housed alone in the barn, was unable to straighten her front legs at the knees. This inability to straighten her front legs caused her to place all of her weight on her toes. She was unable to stand or walk normally. The animal manager mentioned that he noticed the condition two weeks ago but the condition has worsened since then. The animal manager stated that he thought the licensee had contacted the veterinarian regarding this animal, however they "have trouble getting the vet out here." The goat has not been seen by a veterinarian nor received any medical treatment. Upon further questioning with the licensee, she stated that she had not had a chance to discuss this specific animal with the veterinarian. Failure to properly communicate animal health issues to the attending veterinarian in a timely manner can result in prolonged pain and suffering for the animal and potentially worsen a current medical condition.

Daily observation of all animals is critical to ensuring that conditions that can adversely affect health and well-being are recognized in a timely manner. Additionally, when observed, problems relating to animal health or behavior must be conveyed to the attending veterinarian so that appropriate methods can be employed to ensure adequate care. Failure to properly observe and communicate health problems, in a timely manner, can result in prolonged pain and suffering and the increase risk of development of serious medical conditions. The facility must conduct daily observations of all animals to ensure that all health and behavioral concerns are found in a timely manner and appropriately communicated with the attending veterinarian.

2.131(d)(2) REPEAT

HANDLING OF ANIMALS.

Prepared By:

ENGEL DOMINIQUE

ENGEL DOMINIQUE USDA, APHIS, Animal Care

Title: VETERINARY MEDICAL OFFICER 6113

Received By:

Title:

Date:

08-MAR-2017

Date:

08-MAR-2017



Inspection Report

***Upon arriving to the facility, while still in the car, APHIS inspectors saw three members of the public feeding alfalfa pellets to regulated animals. There were no facility representative in direct view of the members of the public. There are not an adequate number of attendants present at all times when the public is allowed contact with the animals. The public is allowed to walk through the facility unescorted on designated paths. The public is allowed to contact and feed the animals. At the time of inspection, only three employees were present to watch the public (approximately 15 people throughout entire facility). Of these three employees, one employee was escorting APHIS personnel on inspection, one was collecting money at the entrance with limited view of the animals, and the third employee was at the back of the property or in the barn with no view of the public. Furthermore, during the inspection, several other members of the public were seen feeding several goats and adult camels alfalfa pellets provided by the facility.

An adequate number of attendants is needed to ensure the health and safety of the animals and to decrease the likelihood of activities (rough handling, improper feeding, etc) that are harmful to the animals.

A responsible, knowledgeable, and readily identifiable employee or attendant must be present at all times during periods of public contact.

3.125(a) REPEAT

FACILITIES, GENERAL.

***A goat was sticking his head out through the wiring of his enclosure, through the gap in the wood paneling of the adjacent camel enclosure.

***The gate in the young male Dromedary camel enclosure that separates his enclosure from an adjacent empty enclosure is in disrepair. The gate is leaning inward and is attached to the structural post by baling twine. The metal bar at the top of the gate is broken at one side and entangled in the wire of the gate.

***In the goat enclosure containing a combination of eight goats and sheep, there were several nail heads sticking out of the wooden fence boards.

***In one corner of the eland enclosure, the wire fencing along the bottom is curving in an upward direction, creating a large gap between the ground and the fencing.

***In the goat enclosure containing 30 goats a section of the wood panels is elevated off of the ground. In the space between the ground and the bottom of the panel, a 10 foot long portion of the chain link fence is coming through, with the wires protruding into the enclosure.

Prepared By:

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08-MAR-2017

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08-MAR-2017



Inspection Report

***In an enclosure containing eighteen sheep and goats a metal uprights of the shade structure were in disrepair. Two legs were completely rusted through, creating sharp points that could come into contact with the animals in the enclosure.

***In an enclosure containing eighteen sheep and goats, a particle board housing structure was in disrepair. Portions of the particle board had been worn and rough, causing screw heads to be visible and protrude from the wood.

***In an enclosure containing twenty goats and one pig, a roughly four foot long gap approximately 6-9 inches in height was created between the ground and the bottom of the chain-link fence. Two sharp point were also pointing downward, where the goats could come into contact with them.

***In the enclosure of "Pinkie," a female Dromedary camel, there was a deep hole roughly a foot in diameter dug by the Sulcata tortoise. The animal manager put his foot into the hole, illustrating that the depth was a minimum of two feet.

***The sheet metal in the stall containing three pigs was rusted and in disrepair, peeling off of the wall. It formed numerous sharp edges that could come into contact with the animals.

All enclosures must be kept in good repair and free of sharp points, protruding edges, or gaps/openings in order to protect the animals from injury. A system of timely identification, facility repair, and maintenance must be in place.

3.127(a) REPEAT

FACILITIES, OUTDOOR.

***A two and a half month old female Dromedary camel was in an outdoor enclosure that did not provide any shade to protect the animal from direct sunlight. The animal manager stated that the camel is placed in this enclosure daily at 9:00am and is taken out of the enclosure at 5:00pm. Inadequate protection from direct sunlight may lead to overheating or discomfort from squinting.

Sufficient shade by natural or artificial means shall be provided to allow all animals kept outdoors to protect themselves from direct sunlight.

The camel was removed from this enclosure at the time of inspection and placed in an enclosure with adequate

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Date:

08-MAR-2017



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shade structures.

3.127(d) REPEAT

FACILITIES, OUTDOOR.

***A two and a half month old female Dromedary camel spends the night in an enclosure that is not surrounded by a perimeter fence. The camel is transferred from her night enclosure to her daytime primary enclosure by being let loose and running between the two enclosures without being led by a handler. The perimeter fence only surrounds the daytime primary enclosure. The area between the two enclosures is not surrounded by a perimeter fence. Allowing the camel to run loose without a perimeter fence in place jeopardizes the safety of the animal as she has the potential to run off of the facility premises.

The perimeter fence must be constructed so that it protects the animals in the facility by restricting animals and unauthorized persons from having contact with the animals, and so it can function as a secondary containment system. It must be of sufficient distance from the outside of the primary enclosure to prevent physical contact between animals inside the enclosure and animals or persons outside the perimeter fence.

The animal manager moved the camel into a different enclosure at the time of inspection and told inspectors that the camel would be staying in that enclosure permanently. The perimeter fence surrounds the enclosure that the camel has been moved to.

3.128

SPACE REQUIREMENTS.

***A two and a half month old female Dromedary camel was in an enclosure that was approximately 6ft by 12ft. The animal manager stated that the camel was in this enclosure daily from 9:00am to 5:00pm. The camel was only able to stand and turn around due to the size of the enclosure. The enclosure that contained the camel at night was approximately twelve square feet in size. She was not able to exhibit normal species specific behaviors in either enclosure.

Enclosures shall be constructed and maintained as to provide sufficient space to allow each animal to make normal postural and social adjustments with adequate freedom of movement.

After the inspection, the animal manager moved the camel into another enclosure that was approximately 1800

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08-MAR-2017



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square foot enclosure. The licensee informed inspectors that the animal began running around and bucking upon introduction to the new permanent enclosure.

3.131(a) REPEAT

SANITATION.

***In the indoor barn housing three adult female pigs, there was an excessive accumulation of excreta on the ground. Large portions of the enclosure were heavily saturated with urine and feces buildup. When APHIS inspectors opened the stall door, there was an overwhelming odor of ammonia coming from the enclosure. Excessive accumulation of animal waste can increase risk of diseases and affect the well-being of the animals.

Animal enclosures must be cleaned routinely in order to provide for appropriate animal husbandry standards, to reduce disease transmission, and to prevent animals from becoming contaminated or soiled. The licensee must clean this enclosure and ensure that all enclosures housing animals are cleaned as often as necessary to promote normal husbandry standards.

This inspection was conducted with animal manager and exit briefing was conducted with licensee and animal manager.

Additional Inspectors

Bolinger Jean, Compliance Specialist

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Received By:

Title:

Date:

08-MAR-2017

Date:

08-MAR-2017



Inspection Report

YUMA, AZ

Customer ID:

Certificate:

Site: 001

Type: ROUTINE INSPECTION

Date: 07-MAR-2017

2.40(b)(2) DIRECT REPEAT

ATTENDING VETERINARIAN AND ADEQUATE VETERINARY CARE (DEALERS AND EXHIBITORS).

***An adult female Coati named "Shyla" still has an abnormal left eye which has significantly worsened in severity since the previous inspection. The eye is protruding and extremely swollen, approximately the size of a golf ball. It is an extremely reddened mass of tissue and has a dark crusty scab on approximately one third of the surface area. Fluid appeared to be leaking out of the eye onto her face. There were flies observed in the open wound around and on the eye. APHIS staff observed the animal clacking its teeth loudly and pacing up in the top corner of the enclosure. The overall condition of the animal has changed since the last inspection. The animal now has a dull hair coat and appears to have lost weight. The animal was shaking her head and pawing at the injured eye frequently during the inspection. She appeared to be suffering, as she exhibited signs of extreme stress and discomfort for the species.

The animal manager stated she was eating normally, but could not describe what he considered to be normal or any changes in diet or feeding. The animal manager stated to APHIS staff that the eye has gotten much worse since November and continues to deteriorate. He described the animal as continuing to become more aggressive and that she has become dangerous to handle. He stated that the last time that any veterinarian has examined the animal was on November 18, 2016 when she came to the facility and administered injectable antibiotics and used a needle to inject "something" directly into the eye. He noticed that the eye was a little better after the veterinary treatment on November 18, 2016 and it initially reduced in size and appeared to heal. On that same date, the veterinarian discussed a plan of treatment to include daily administration of BNP eye ointment and possibly stitching the eye shut to allow it to heal if treatment didn't result in improvement.

According to the animal manager, he continued to apply eye ointment as directed for approximately 10 days. They noted on their logs on November 28, 2016 that the eye was back down to a normal size, mainly dark, with milky opacity in the center. The eyeball was also no longer red or swollen. They continued to apply eye ointment on a daily basis as directed by the veterinarian.

On December 6, 2016 staff made a notation on the animal treatment log that the eye had deteriorated again, and

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07-MAR-2017

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was "very bad." The licensee wrote in her log that she spoke to the attending veterinarian on that date and was advised that the animal needed follow up. The facility continued eye ointment and noted that the condition of the eye was worsening throughout December and January. Despite the recommendation by the attending veterinarian to have the animal reexamined, there is no record that it ever was.

On January 27, 2017 the facility noted on the treatment logs that they had ceased giving eye ointment. When questioned further, the animal manager stated that they felt "the eye looked better without it". He stated due to the aggressive behavior of the animal it was becoming difficult to administer the ointment or to even capture the animal. The licensee made the decision to discontinue use of the eye ointment on their own accord and admitted that this was not approved by the AV. The animal manager stated that after watching the AV inject the eye during her visit on November 18, 2016 he decided that he would also try to "pop" the eye on his own, in an attempt to improve the overall condition of the eye. He stated that on several occasions over the last few months he has confined the animal, popped the eye both manually with his fingers and also with a needle, and then applied Gentamicin ointment to the eye. During his self-prescribed procedure of the eye, he stated that there was a red fluid that came out with resembled "watered down blood" and that he did not notice any pus.

On January 27, 2017 the licensee again noted that she spoke to the attending veterinarian and discussed the eye problem, but that the AV was out of town and would come by to see the animal when she gets back. There was no notation of any attempt to contact an emergency or alternate veterinarian at any time during the months of November through March the animal's deteriorating condition.

As of today, March 7, 2017 the coati has still not been seen by any veterinarian despite the condition of the eye continuing to worsen as noted and observed by the facility staff. They have also completely stopped providing any treatment and have discontinued recommended treatment by the AV.

Eye issues can be caused by a variety of problems including infection, allergies, injury, irritation, or other medical conditions. This animal is already exhibiting signs of pain and distress. The delay in providing necessary follow up veterinary care appears to have resulted in unnecessary pain and suffering. In addition the 'care' provided without veterinary approval may have resulted in unnecessary distress and contributed to worsening of the condition.

***A young gray and white female goat, which was being housed alone in the barn, was unable to straighten her front legs at the knees. This inability to straighten her front legs caused her to place all of her weight on her toes. She was unable to stand or walk normally. The animal manager mentioned that he noticed the condition two weeks ago but the condition has worsened since then. The animal manager stated that he thought the licensee had contacted the veterinarian regarding this animal, however they "have trouble getting the vet out here." The goat has not been seen by a veterinarian nor received any medical treatment. Upon further questioning with the licensee,

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she stated that she had not had a chance to discuss this specific animal with the veterinarian.

***An intact adult male tricolor goat was non-weight bearing on his right front limb. The goat was lame at the walk. The animal manager had not noticed that the goat was lame until the time of the USDA inspection. Lameness and non-weight bearing is an indicator of disease and often pain. It can result from numerous causes including both infectious and non-infectious. Failure to contact the attending veterinarian regarding the diagnosis and treatment can result in delays of appropriate care and prolong suffering of the animal. Injuries, diseases, and medical conditions that are not treated properly (as directed by a veterinarian) may be painful and can lead to prolonged suffering.

The facility must ensure that all animals showing potential signs of veterinary medical problems are evaluated by a veterinarian in a timely manner in order to receive an accurate diagnosis and appropriate treatment plan. Additionally, the facility must ensure the availability of emergency, weekend, and holiday care for all of the animals at the facility.

The licensee was notified verbally that she must have both goats (the male and female listed above) and Shyla, the coati, examined by a veterinarian by no later than 6:00pm on March 7, 2017 to obtain accurate diagnosis and appropriate treatment plans for the leg problems cited above. The outcome of this consultation must be provided, in writing, to the inspector upon request. This documentation should include the veterinary diagnosis, all diagnostic tests and the outcome of those tests that were performed by the veterinarian, any medications prescribed along with the dosing instructions and entries on a log and/or calendar and/or animal health record that list when the medication is administered to the animal.

There should also be an entry at the end of the treatment to document the health status and condition of each animal at that point, to indicate a time frame to address current issues that require further veterinary treatment, and the need for follow-up and any further veterinary care prescribed.

Additionally, the licensee must ensure that all animals at the facility are provided with adequate veterinary care, as described by the attending veterinarian and the program of veterinary care. The program for providing adequate veterinary care shall include the use of appropriate methods to prevent, control, diagnose, and treat diseases and injuries.

A complete routine inspection was conducted on March 7, 2017. This report is limited to the direct noncompliant items identified on that inspection. A second inspection report containing indirect noncompliant items will follow. The inspection was conducted with the animal manager and the exit interview were conducted with the licensee and animal manager on March 7, 2017.

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Inspection Report

Additional Inspectors

Bolinger Jean, Compliance Specialist

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07-MAR-2017

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07-MAR-2017



Inspection Report

YUMA, AZ

Customer ID:

Certificate:

Site: 001

Type: FOCUSED INSPECTION

Date: 08-MAR-2017

2.40(b)(2) DIRECT REPEAT

ATTENDING VETERINARIAN AND ADEQUATE VETERINARY CARE (DEALERS AND EXHIBITORS).

A focused inspection was conducted on March 8, 2017 by APHIS inspectors and an IES investigator. The three pigs with the excessively long hooves noted on the previous inspection had received hoof trimming and had been moved into a different enclosure.

The coatimundi, Shyla, was not on the premises at the time of inspection. Licensee stated that she had taken the coatimundi to the veterinary clinic at approximately 8:30 am this morning. The licensee called the clinic at approximately 10:30 am and spoke with the assistant. At the time of the inspection, the licensee did not know what the veterinarian's plan regarding the diagnosis and treatment of the coatimundi.

The APHIS inspector contacted the veterinarian regarding the coatimundi at 2:37pm on March 8, 2017. The veterinarian stated that she had not given any pain medication to the coatimundi and that no medical treatment had been provided that day. The veterinarian stated that she had given the coatimundi antibiotics last night but sent the animal home as she did not have adequate facilities to house a coatimundi. The veterinarian stated to the inspector via phone that the animal was "very aggressive" and that the "eye is pretty bad". No other diagnostics, treatments, medications or pain control have been given at the time of this inspection. The veterinarian stated to the inspector via phone that she was planning to anesthetize the coatimundi and try to clean the eye out and that she would "try to do it today," however she was unable to confirm when the coatimundi would be examined and treated.

The young gray and white female goat which was unable to straighten her front legs at the knees during the previous inspection was still in her enclosure in the barn. Her condition had not changed from yesterday and she was still unable to stand or walk normally. Licensee stated that the goat had not received any veterinary treatment.

In addition, the intact adult male tricolor goat that was non-weight bearing on his right front limb during the previous inspection had been moved into the same enclosure as the gray and white female goat that was cited. The buck's condition was unchanged from the previous inspection and he was still non-weight bearing on the right forelimb and

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lame at a walk. A veterinarian visually examined the goat yesterday and made a presumptive diagnosis. The inspector spoke with this veterinarian regarding these 2 goats previously identified by the inspectors as needing veterinary care on the night of March 7. He stated that he had recommended to the licensee that the goats in question should receive diagnostic testing in order to give a diagnosis and recommended a non-steroidal anti-inflammatory agent for pain control, however animal manager at the facility declined diagnosis and treatment.

The female fallow deer that had a fresh wound over the left point of the shoulder during the previous inspection had not been seen by a veterinarian and licensee had not provided any treatment.

Injuries, diseases, and medical conditions that are not treated properly (as directed by a veterinarian) may be painful and can lead to prolonged suffering. The facility must ensure that all animals showing potential signs of veterinary medical problems are evaluated by a veterinarian in a timely manner in order to receive an accurate diagnosis and appropriate treatment plan. The facility must ensure that all animals showing potential signs of veterinary medical problems are evaluated by a veterinarian in a timely manner in order to receive an accurate diagnosis and appropriate treatment plan. Additionally, the facility must ensure the availability of emergency, weekend, and holiday care for all of the animals at the facility.

The facility representative was notified verbally that he must have both goats (the male and female listed above) examined and receive medical treatment by a veterinarian by no later than 10:00am on March 9, 2017 to obtain accurate diagnosis and appropriate treatment plans for the leg problems cited above. In addition, the results of the examination and treatment of the coatimundi should be made available to the inspection. The outcome of this consultation must be provided, in writing, to the inspector upon request. This documentation should include the veterinary diagnosis, all diagnostic tests and the outcome of those tests that were performed by the veterinarian, any medications prescribed along with the dosing instructions and entries on a log and/or calendar and/or animal health record that list when the medication is administered to the animal.

There should also be an entry at the end of the treatment to document the health status and condition of each animal identified on inspection, to indicate a time frame to address current issues that require further veterinary treatment, and the need for follow-up and any further veterinary care prescribed.

Additionally, the licensee must ensure that all animals at the facility are provided with adequate veterinary care, as described by the attending veterinarian in the program of veterinary care. The program for providing adequate veterinary care shall include the use of appropriate methods to prevent, control, diagnose, and treat diseases and injuries.

A focused inspection was conducted on March 8, 2017. This report is limited to the direct noncompliant items

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08-MAR-2017

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08-MAR-2017



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identified on that inspection. The inspection was conducted with the animal manager and IES investigator and the exit interview was conducted with the animal manager, an authorized facility representative, on March 8, 2017.

Additional Inspectors

Bolinger Jean, Compliance Specialist

Frank Katharine, Veterinary Medical Officer

Garland Kathleen, Supervisory Animal Care Specialist

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08-MAR-2017

Date:

08-MAR-2017



Inspection Report

YUMA, AZ

Customer ID:

Certificate:

Site: 001

Type: FOCUSED INSPECTION

Date: 09-MAR-2017

A focused inspection was conducted by APHIS inspectors at 10:30am on March 9, 2017. Animal manager informed the inspectors that a veterinarian had visited the facility this morning and provided veterinary care to the animals.

The veterinarian had euthanized Shyla, the coatimundi, and the young gray and white female goat which was unable to straighten her front legs at the knees during the previous inspection. Documentation left by the veterinarian showed that the coatimundi had received sedation consisting of ketamine, midazolam, and sedivet, before being administered Fatal Plus euthanasia solution. The document showed that the female goat had been sedated with Sedivet before being given Fatal Plus euthanasia solution. APHIS personnel were able to verify the disposition of the coatimundi.

The veterinarian gave the intact adult male tricolor goat that was non-weight bearing on his right front limb during the previous inspection an injection of Firocoxib. The animal manager informed us that the veterinarian had rushed off to complete other calls but would be coming back to re-evaluate the animals and fill out the program of veterinary care, as the new attending veterinarian.

This inspection was conducted with the animal manager and exit interview was conducted with the animal manager and licensee.

Additional Inspectors

Bolinger Jean, Compliance Specialist

Frank Katharine, Veterinary Medical Officer

Garland Kathleen, Supervisory Animal Care Specialist

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Date:

09-MAR-2017

Received By:

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Date:

09-MAR-2017



Inspection Report

YUMA, AZ

Customer ID:

Certificate:

Site: 001

Type: ROUTINE INSPECTION

Date: 23-MAY-2017

2.126(a)(4) CRITICAL

ACCESS AND INSPECTION OF RECORDS AND PROPERTY; SUBMISSION OF ITINERARIES.

The licensee stated that four animals, an adult male coati named Cody, an adult hedgehog named Pickles, an adult female Fennec fox named Foxy, and an adult female ferret named Sally, were housed in a separate area from the other animals at the facility. The licensee refused to allow APHIS personnel to inspect these animals while in their primary enclosures.

To ensure the health and welfare of the animals, APHIS personnel must be able to observe all regulated animals, their primary enclosures, and the surrounding premises.

Each dealer, exhibitor, intermediate handler, or carrier, shall during business hours, allow APHIS officials to inspect and photograph the facilities, property, and animals, as the APHIS officials consider necessary to enforce the provisions of the Act, the regulations and the standards in this subchapter.

A complete routine inspection was conducted on May 23, 2017. This report is limited to critical noncompliant items identified on that inspection. A second inspection report containing indirect noncompliant items will follow.

Both the inspection and exit interview were conducted with the licensee and facility representative on May 23, 2017.

Additional Inspectors

Meek Elizabeth, Asst Regional Director

Bolinger Jean, Compliance Specialist

Tims Tanya, Supervisory Animal Care Specialist

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Title: VETERINARY MEDICAL OFFICER 6113

Date:

23-MAY-2017

Received By:

Title:

Date:

23-MAY-2017



Inspection Report

YUMA, AZ

Customer ID:

Certificate:

Site: 001

Type: ROUTINE INSPECTION

Date: 23-MAY-2017

2.40(a)(1) DIRECT REPEAT

ATTENDING VETERINARIAN AND ADEQUATE VETERINARY CARE (DEALERS AND EXHIBITORS).

***The applicant uses a veterinarian under consulting arrangements to provide veterinary care for the animals but does not have a written Program of Veterinary Care. The applicant does not have written guidance from an attending veterinarian to provide preventative care or treatment for routine and common veterinary problems. In order to ensure problems of animal health are addressed in an adequate and timely manner, a written program of veterinary care must be maintained and followed.

During this inspection it was observed that several animals are in need of immediate veterinary care. A male Dromedary camel, Zo, has a large growth around his chest pad. The licensee was unable to provide evidence of a physical exam, diagnosis, or treatment plan provided by her attending veterinarian. Three female pigs and a sheep, with ear tag 00384, had excessively overgrown hooves that were in need of trimming. Foxy, a female Fennec fox, had hair loss over the knuckles of all four feet and had excessively long nails. A female coati, Tuffy, had a large, golf-ball sized growth in her abdominal region. Tuffy was also repeatedly moving in a fixed pattern of jumping from one platform to the next and then crawling on the roof of the enclosure back to the first platform. A sheep was observed to have a distended abdomen, nasal discharge, labored breathing, and a humped back. The sheep had not been examined by a veterinarian. A female Ibex, Pixie, had a dull, rough haircoat, and was underweight, with her hip bones visibly protruding. Pixie has not been examined by a veterinarian.

Each applicant shall employ an attending veterinarian under formal arrangements. In the case of a part-time attending veterinarian or consultant arrangements, the formal arrangements shall include a written program of veterinary care and regularly scheduled visits to the premises of the applicant.

The program of veterinary care should address appropriate methods to prevent (vaccination guidelines), control (parasite), diagnose, and treat diseases and injuries, and the availability of emergency, weekend, and holiday care. The applicant and the attending veterinarian must also discuss and develop a plan regarding the diet and nutrition, including any supplements, for the animals at the facility.

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Title: VETERINARY MEDICAL OFFICER 6113

Received By:

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23-MAY-2017

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23-MAY-2017



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2.40(b)(2) DIRECT REPEAT

ATTENDING VETERINARIAN AND ADEQUATE VETERINARY CARE (DEALERS AND EXHIBITORS).

During this inspection, it was observed that several animals are in need of immediate veterinary care.

***A male Dromedary camel, Zo, has a large growth on his chest pad that was irregular in shape, approximately 4 inches by 8 inches extending approximately 6 inches down from the body wall. The growth was covered with flies. The licensee was unable to provide documentation of a physical exam, diagnosis, or treatment plan provided by the attending veterinarian. The licensee periodically applies fly spray to the area.

***An adult female Fennec fox, Foxy, had hair loss over the knuckles of all four feet. A facility representative stated that he had noticed the hair loss, however the fox has not been evaluated by a veterinarian and is not receiving treatment of any kind. The fox also had excessively long nails that needed to be trimmed.

***A female Ibex, Pixie, was observed to have a patchy, dull haircoat. She appeared to be underweight, as evidenced by protruding hip bones and a prominent spine. The facility representative stated that she had always been like that. Pixie has not been examined by a veterinarian.

***APHIS employees observed a large, golf ball sized mass on the abdominal region of a female coati named Tuffy. The licensee stated that this was the first time that she had noticed the mass. In addition, the coati was repeatedly moving in a fixed pattern of jumping from one platform to the next and then crawling on the roof of the enclosure back to the first platform. This behavior was not interrupted by the position or distance of the observers or when an attendant entered the enclosure. The coati has not received veterinary evaluation or treatment.

*** A sheep with ear tag 00384 had excessively overgrown hooves on her hind feet and was in need of a hoof trim.

***Three female adult pigs, housed in an indoor barn, are in need of hoof trims. The hooves on the animals were excessively long, extending out approximately four to five inches. Failure to appropriately maintain hooves/nails can cause gait abnormalities which can be painful or cause injuries. As part of the facility's programs of preventative veterinary care, the licensee must ensure that all animals receive appropriate hoof and nail care in a timely manner.

***An adult black and white female sheep was observed by APHIS employees to be standing with her head down, neck extended and breathing heavily. She had discharge coming from her nose that had dripped onto her front leg. Her abdomen was extremely distended and her back was hunched up. When the APHIS inspector pointed this out to the licensee, she stated that when she walked up to the enclosure she had noticed the hump on the sheep's back

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Date:

23-MAY-2017

Date:

23-MAY-2017



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and felt she should call the veterinarian. The sheep has not been evaluated by a veterinarian.

***An intact adult male tricolor goat that had been non-weight bearing on his right front leg during the APHIS inspection on March 9, 2017 was observed during this inspection to still be non-weight bearing. The facility representative provided documentation showing that the veterinarian had examined and treated the goat on March 9, 2017. The licensee stated that the veterinarian had rechecked the goat on March 16, 2017, however did not have any documentation regarding that visit. A facility representative stated that he had been injecting the goat with pain medication provided by the veterinarian. The licensee confirmed that pain medication he had been injecting the goat with was an oral medication prescribed for a coati and was not intended to be used on the goat. The veterinarian has not examined this goat since March 2017.

The facility must ensure that all animals showing potential signs of veterinary medical problems are evaluated by a veterinarian in a timely manner in order to receive an accurate diagnosis and appropriate treatment plan. Additionally, the facility must ensure the availability of emergency, weekend, and holiday care for all of the animals at the facility.

The animals mentioned above must be examined by a veterinarian to obtain accurate diagnosis and appropriate treatment plans for the problems cited above. The outcome of this consultation must be provided, in writing, to the inspector upon request. This documentation should include the veterinary diagnosis, all diagnostic tests, and the outcome of those tests that were performed by the veterinarian, any medications prescribed along with the dosing instructions and entries on a log and/or calendar and/or animal health record that list when the medication is administered to the animal.

There should also be an entry at the end of the treatment to document the health status and condition of each animal at that point, to indicate a time frame to address current issues that require further veterinary treatment, and the need for follow-up and any further veterinary care prescribed.

From this date forward, the licensee must ensure that all animals at the facility are provided with adequate veterinary care, as described by the attending veterinarian and the program of veterinary care. The program for providing adequate veterinary care shall include the use of appropriate methods to prevent, control, diagnose, and treat diseases and injuries.

A complete routine inspection was conducted on May 23, 2017. This report is limited to direct noncompliant items identified on that inspection. A second inspection report containing indirect noncompliant items will follow.

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23-MAY-2017

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23-MAY-2017



Inspection Report

Both the inspection and exit interview were conducted with the licensee and facility representative on May 23, 2017.

Additional Inspectors

Meek Elizabeth, Asst Regional Director

Bolinger Jean, Compliance Specialist

Tims Tanya, Supervisory Animal Care Specialist

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23-MAY-2017

Date:

23-MAY-2017



Inspection Report

YUMA, AZ

Customer ID:

Certificate:

Site: 001

Type: ROUTINE INSPECTION

Date: 23-MAY-2017

2.40(b)(3)

REPEAT

ATTENDING VETERINARIAN AND ADEQUATE VETERINARY CARE (DEALERS AND EXHIBITORS).

During the inspection, the following animals were in need of veterinary attention:

- adult male Dromedary camel, "Zo"
- adult female Fennec fox, "Foxy"
- female Ibex, "Pixie"
- female coati, "Tuffy"
- adult sheep with ear tag 00384
- three female adult pigs located in the barn
- adult black and white female sheep
- adult male tricolor goat located in the barn

The facility failed to observe that these animals were in need of veterinary attention. Facility representatives informed APHIS personnel that the attending veterinarian had not examined these animals and were unable to provide any documentation indicating that the attending veterinarian was notified about the condition of the animals.

Daily observation of all animals is critical to ensuring that conditions that can adversely affect health and well-being are recognized in a timely manner. Additionally, when observed, problems relating to animal health or behavior must be conveyed to the attending veterinarian so that appropriate methods can be employed to ensure adequate care. Failure to properly observe and communicate health problems can result in prolonged pain and suffering and the increase risk of development of serious medical conditions. The facility must conduct appropriate daily observations of all animals to ensure that all health and behavioral concerns are found in a timely manner and appropriately communicated with the attending veterinarian.

3.125(a)

REPEAT

FACILITIES, GENERAL.

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Title: VETERINARY MEDICAL OFFICER 6113

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Inspection Report

***In one corner of the eland enclosure, the wire fencing along the bottom is curving in an upward direction, creating a large gap between the ground and the fencing. This is unchanged since the previous inspection.

***There was a strand of broken metal fencing lying on the ground in the eland enclosure, with a sharp point facing upward.

***In the eland enclosure, the base of a metal pole that serves as part of the fence is rusted through, thus compromising its structural integrity.

***The gate in the young male Dromedary camel enclosure that separates his enclosure from an adjacent empty enclosure is in disrepair. The gate is leaning inward and is attached to the structural post by baling twine. The metal bar at the top of the gate is broken at one side and entangled in the wire of the gate. This is unchanged since the previous inspection.

***The sheet metal in the stall containing three pigs was rusted and in disrepair, peeling off of the wall. It formed numerous sharp edges that could come into contact with the animals. This is unchanged since the previous inspection.

***In an enclosure containing 12 sheep, multiple screws were sticking out of the wooden boards into the enclosure.

***In the enclosure containing an adult male goat, Gozar, there was a metal pole lying on the ground along the fence. There was a hole in the pole with sharp, rusted edges that could injure the animal.

***In an enclosure containing 8 goats, there was a metal stall with one of the walls in disrepair. The bottom portion of the far wall of the stall contained sharp and rusted metal edges.

All enclosures must be kept in good repair and free of sharp points, protruding edges, or gaps/openings in order to protect the animals from injury. A system of timely identification, facility repair, and maintenance must be in place.

3.127(a) REPEAT

FACILITIES, OUTDOOR.

***Several enclosures did not have adequate shade to protect all of animals from direct sunlight.

-An enclosure containing 9 goats

-An enclosure containing five goats and two pigs

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Inspection Report

- An enclosure containing 11 La mancha goats and 1 Boer goat
- An enclosure containing 2 adult water buffalo

The areas of shade provided were not large enough to allow all of the animals within the enclosure to be protected from direct sunlight. At the time of inspection, the temperature registered on the Kestrel 4000 was 106.1 degrees Fahrenheit. Several of the goats and sheep were exhibiting signs of a heat stress, as indicated by the animals standing or lying down with extended necks and panting.

Inadequate protection from direct sunlight may lead to overheating or discomfort from squinting.

3.127(d) REPEAT

FACILITIES, OUTDOOR.

***Near the eland enclosure, a large portion of the perimeter fence was in disrepair. One of the metal poles stabilizing the chain link was leaning outward, away from the property at approximately a 30 degree slant. Another metal stabilizing pole was leaning inward. Along one section of the fence, the metal bar at the top of the fence was broken into two pieces.

*** At the front of the property, near the hinny and sheep enclosure, an approximately 100 foot long segment of the perimeter fence was less than 6 feet tall.

***Near the enclosures containing the coati and Fennec fox, a tree was leaning on the perimeter fence.

All of the issues cited above decrease the efficacy of the perimeter fence to function as a secondary containment system for the regulated animals and to protect them from outside animals entering the premises.

The perimeter fence must be constructed so that it protects the animals in the facility by restricting animals and unauthorized persons from having contact with the animals, and so it can function as a secondary containment system. It must be of sufficient distance from the outside of the primary enclosure to prevent physical contact between animals inside the enclosure and animals or persons outside the perimeter fence.

3.129(a)

FEEDING.

***In the center aisle of the barn there were two open bags of feed. They were next to a pile of building materials

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Inspection Report

and feed bags, which were covered in dust, rodent feces, and spider webs. There were a few flies flying in and out of the opened feed bags.

Contaminated food may harbor pathogens and cause disease in the animals. Also, the nutritive value of contaminated food is unknown. The licensee must ensure that all food shall be wholesome, palatable, and free from contamination and of sufficient quantity and nutritive value to maintain all animals in good health.

To be corrected by: May 30, 2017

3.130 REPEAT

WATERING.

Several enclosures had dirty water receptacles.

***In an enclosure containing 3 adult camels there was a buildup of a green substance on the interior surface of the water receptacles along with debris floating on top of the water.

***The drinking water in an enclosure containing 5 juvenile goats and two pigs, as well as the drinking water in an enclosure containing 2 adult water buffalo was a brown liquid.

***In the enclosure containing a combination of 22 sheep and goats there was a buildup of green substance on interior surface of receptacle.

Water receptacles must be maintained in a clean and sanitary condition in order to ensure that animals are provided with clean, potable water, to minimize disease hazards and to ensure that they maintain adequate hydration. Water receptacles should be cleaned at a frequency that is adequate to maintain standard husbandry practices.

3.131(a) REPEAT

SANITATION.

***In an enclosure containing one adult zebra and two adult donkeys, there was an excessive accumulation of manure under both of the shade structures. Excessive accumulation of animal waste can increase risk of disease and affect the well-being of the animals.

***In an enclosure containing two adult water buffalo, there was a mud wallow. There was a green substance floating on the water. APHIS personnel noticed a foul odor when they approached the wallow. Dirty water can pose a health risk to the animals as it can contain bacteria and parasites.

Animal enclosures must be cleaned routinely in order to provide for appropriate animal husbandry standards, to

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reduce disease transmission, and to prevent animals from becoming contaminated or soiled. The licensee must clean this enclosure and ensure that all enclosures housing animals are cleaned as often as necessary to promote normal husbandry standards.

3.131(c)

SANITATION.

***In the center aisle of the barn, alongside the stall containing three adult pigs, there was an accumulation of building materials, feed bags, buckets, debris, and a skull, all covered in dust, spider webs, and rodent feces.

***In the stall containing three adult pigs there was an accumulation of cobwebs along the walls.

Accumulation of materials and debris make it difficult to maintain husbandry standards, can be areas for harboring pests which can transmit disease to the regulated animals and may be an indication of substandard husbandry practices. Premises (buildings and grounds) shall be kept clean and in good repair in order to protect the animals from injury and to facilitate the prescribed husbandry practices set forth in this subpart.

To be corrected by: May 30, 2017

3.131(d)

REPEAT

SANITATION.

***There were numerous flies on the growth on the chest pad of the adult male Dromedary camel, Zo.

***A female camel and her newborn (born on Sunday) had numerous flies on their hind legs. The adult had several flies on and around her face. Additionally, there were numerous flies around the umbilicus on the newborn.

***There were numerous flies in the enclosure containing an adult male goat, called Gozar. The flies were crawling along the wooden panels that were against the metal fencing.

There were several fly traps placed along different fence lines, however they were filled with dead flies and not adequately controlling the pest problem. Excessive amounts of flies on or around the animals can be stressful to the animal. Additionally, disease can be transmitted by the pests to the animals and they can contaminate feed and water.

The licensee must establish and maintain an effective program for the control of pests to promote the health and

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Inspection Report

well-being of the animals and reduce contamination by pests in all animal areas.

This report is a continuation of the previous report issued on May 23, 2017 and contains the indirect citations from the routine inspection conducted at that time. An additional report containing the direct citations was previously delivered to the licensee on May 23, 2017 and an exit interview was conducted at that time. With respect to the noncompliant items contained within this report, an exit was conducted on May 23, 2017 with the licensee and the undersigned inspector.

Additional Inspectors

Meek Elizabeth, Asst Regional Director

Bolinger Jean, Compliance Specialist

Tims Tanya, Supervisory Animal Care Specialist

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25-MAY-2017



Inspection Report

YUMA, AZ

Customer ID:

Certificate:

Site: 001

Type: ATTEMPTED INSPECTION

Date: 11-JUL-2017

2.126(b)

ACCESS AND INSPECTION OF RECORDS AND PROPERTY; SUBMISSION OF ITINERARIES.

A responsible adult was not available to accompany APHIS Officials during the inspection process at 1200 PM on 11-JUL-17.

Inspectors arrived at the facility (which was closed to the public) and spoke to an adult male, who advised us to call the authorized persons on the license. We attempted to call both authorized persons listed and left messages at both numbers. The adult male is a member of the family and had access to the animal facility, but not the records and wanted to get permission to conduct the inspection from the licensees by phone. After multiple attempts to call (by both parties) and waiting for a call back from either of the licensees, no contact was made with the licensees and the adult male needed to leave the facility and we left the property at 1 PM.

Additional Inspectors

Rosendale Marcy, Veterinary Medical Officer

Prepared By:

FRANK KATHARINE, D V M

FRANK KATHARINE, D V M USDA, APHIS, Animal Care

Title: VETERINARY MEDICAL OFFICER 6091

Date:

12-JUL-2017

Received By:

Title:

Date:

12-JUL-2017