

CHRONIC WASTING DISEASE

THURSDAY, SEPTEMBER 08, 2022

APHIS Indemnity Regulations [Docket No. APHIS-2021-0010] Singeltary Comment Submission

APHIS Indemnity Regulations [Docket No. APHIS-2021-0010]
Singeltary Comment Submission

I would kindly like to comment on ;

<https://www.govinfo.gov/content/pkg/FR-2022-09-07/html/2022-19260.htm>

> Part 54 contains our regulations governing indemnification for scrapie in

> sheep and goats,

> while part 55 contains our regulations governing indemnification for chronic wasting

> disease in captive cervids.

USDA Indemnity Values for 2022: Commercial Table

https://www.aphis.usda.gov/animal_health/downloads/usda-commercial-values-2022.pdf

ACTION

Advance notice of proposed rulemaking and request for comments.

SUMMARY

We are soliciting public comment on a new approach to indemnity value determination and a new framework for the indemnity regulations. These parts address payment of indemnity for the destruction and disposition of animals the Animal and Plant Health Inspection Service (APHIS) classifies as infected with, suspect of, or exposed to diseases of concern, to eradicate and control foreign animal diseases, emerging diseases, and program diseases. The current regulations for valuing animals for the purpose of indemnification vary from species to species and, in some cases, disease to disease within a species. The new approach would harmonize how APHIS determines animal values and deals with costs associated with transportation, cleaning, disposal, and other points at which variations occur in how APHIS manages indemnity and compensation.

ABOUT ME

My Photo

TERRY S. SINGELTARY
SR.
BACLIFF, TEXAS,
UNITED STATES

My mother was murdered by what I call corporate and political homicide i.e. FOR PROFIT! she died from a rare phenotype of CJD i.e. the Heidenhain Variant of Creutzfeldt Jakob Disease i.e. sporadic, simply meaning from unknown route and source. I have simply been trying to validate her death DOD 12/14/97 with the truth. There is a route, and there is a source. There are many here in the USA. WE must make CJD and all human TSE, of all age groups 'reportable' Nationally and Internationally, with a written CJD questionnaire asking real questions pertaining to route and source of this agent. Friendly fire has the potential to play a huge role in the continued transmission of this agent via the medical, dental, and surgical arena. We must not flounder any longer. ...TSS

[VIEW MY COMPLETE PROFILE](#)

PREVIOUS POSTS

[Exploring the possibility of CWD transmission thro...](#)

[Texas Chronic Wasting Disease Discovered at a Deer...](#)

[Texas CWD Count As Of Late August 2022 Totals 376 ...](#)

[Transmission of cervid prions to humanized mice de...](#)

[North Carolina Second Deer Tests Positive for CWD](#)

[Wisconsin Waukesha County Herd Depopulated After C...](#)

[Texas Proposed Amendments to CWD Zone Rules Singel...](#)

[KANSAS CWD TSE PrP As of 30 June 2021, CWD has bee...](#)

DATES

We will consider all comments that we receive on or before November 7, 2022.

ADDRESSES

You may submit comments by either of the following methods:

- *Federal eRulemaking Portal*: Go to www.regulations.gov. Enter APHIS-2021-0010 in the Search field. Select the Documents tab, then select the Comment button in the list of documents.
- *Postal Mail/Commercial Delivery*: Send your comment to Docket No. APHIS-2021-0010, Regulatory Analysis and Development, PPD, APHIS, Station 3A-03.8, 4700 River Road, Unit 118, Riverdale, MD 20737-1238.

Supporting documents and any comments we receive on this docket may be viewed at *Regulations.gov* or in our reading room, which is located in Room 1620 of the USDA South Building, 14th Street and Independence Avenue SW, Washington, DC. Normal reading room hours are 8 a.m. to 4:30 p.m., Monday through Friday, except holidays. To be sure someone is there to help you, please call (202) 799-7039 before coming.

FOR FURTHER INFORMATION CONTACT

Dr. Michael Carter, Commodity Policy Advisor, Strategy and Policy, Veterinary Services, 4700 River Road, Riverdale MD 20737; Phone: (301) 851-3510.

<https://www.regulations.gov/document/APHIS-2021-0010-0001>

<https://downloads.regulations.gov/APHIS-2021-0010-0001/content.pdf>

APHIS Indemnity Regulations [Docket No. APHIS-2021-0010]
Singeltary Comment Submission

***> My comments on APHIS Indemnity Regulations [Docket No. APHIS-2021-0010] RIN 0579-AE65 Singeltary Comment Submission as follows;

I have commented on Indemnity Payouts before, or what i called 'entitlement program' for Captive Deer Farming to farm Chronic Wasting Disease CWD, Transmissible Spongiform Encephalopathy TSE, Prion disease, and i will say it again here;

***> 4th Captive Farmed Cervid, INDEMNITY, NO MORE Federal indemnity program, or what i call, ENTITLEMENT PROGRAM for game farm industry. NO MORE BAIL OUTS FROM TAX PAYERS. if the captive industry can't buy insurance to protect not only themselves, but also their customers, and especially the STATE, from Chronic Wasting Disease CWD TSE Prion or what some call mad

TEXAS Letter from Trophy Ranch to Governor Abbott ...

More than 300 deer will be killed at a Wisconsin f...



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deer disease and harm therefrom, IF they can't afford to buy that insurance that will cover all of it, then they DO NOT GET A PERMIT to have a game farm for anything. This CWD TSE Prion can/could/has caused property values to fall from some reports in some places. roll the dice, how much is a state willing to lose?

Control of Chronic Wasting Disease OMB Control
Number: 0579-0189 APHIS-2021-0004 Singeltary
Submission

<https://www.regulations.gov/comment/APHIS-2021-0004-0002>

https://downloads.regulations.gov/APHIS-2021-0004-0002/attachment_1.pdf

Docket No. APHIS-2018-0011 Chronic Wasting Disease
Herd Certification

<https://www.regulations.gov/document/APHIS-2018-0011-0003>

https://downloads.regulations.gov/APHIS-2018-0011-0003/attachment_1.pdf

TO LET these deer farms continue to flagrantly go around regulations set up to help stop CWD, and then when said deer farm, breeder, shooting pens, sperm mill, horn mill, velvet mill, goes on to contract CWD, they then get thousands and thousands of dollars of tax payer money for continued violations of said CWD rules, it's like it pays to get CWD for these game farms. This is totally wrong and should not happen imo.

THIS FREE CASH GIVE AWAY MUST STOP, TO FARM CWD\$\$\$

Taxpayers paid more than \$500,000 for deer farm buyouts the last three years

By Tony Kennedy Star Tribune MARCH 13, 2020 — 7:42AM

<https://www.startribune.com/taxpayers-paid-more-than-500-000-for-deer-farm-buyouts-the-last-three-years/568739082/>

The state's plan to depopulate Maple Hill Farm will go down as the largest CWD-related deer farm depopulation in Wisconsin history—both in the number of animals removed and the size of the indemnity payment. The federal fund allows for a maximum payment of \$3,000 per animal, so for 350 deer, that would be a roughly \$1.5 million paycheck.

Wisconsin currently has 301 registered deer farms with 38 considered CWD-positive, according to **state data**. Twenty of those 38 farms have been depopulated with indemnity paid to the owners.

<https://www.outdoorlife.com/conservation/300-deer-killed-deer-farm-wisconsin-cwd/>

IF YOU STOP PAYING TO HAVE CWD ON THESE GAME FARMS, THEY WILL STOP FARMING THEM.

***> 4th Captive Farmed Cervid, INDEMNITY, NO MORE Federal indemnity program, or what i call, ENTITLEMENT PROGRAM for game farm industry. NO MORE BAIL OUTS FROM TAX PAYERS. if the captive industry can't buy insurance to protect not only themselves, but also their customers, and especially the STATE, from Chronic Wasting Disease CWD TSE Prion or what some call mad deer disease and harm therefrom, IF they can't afford to buy that

insurance that will cover all of it, then they DO NOT GET A PERMIT to have a game farm for anything. This CWD TSE Prion can/could/has caused property values to fall from some reports in some places. roll the dice, how much is a state willing to lose?

Control of Chronic Wasting Disease OMB Control
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<https://www.regulations.gov/comment/APHIS-2021-0004-0002>

https://downloads.regulations.gov/APHIS-2021-0004-0002/attachment_1.pdf

Docket No. APHIS-2018-0011 Chronic Wasting Disease
Herd Certification

<https://www.regulations.gov/document/APHIS-2018-0011-0003>

https://downloads.regulations.gov/APHIS-2018-0011-0003/attachment_1.pdf

PLUS, IF THESE NEW/OLD FINDINGS THAT IT'S POSSIBLE FOR CWD transmission through artificial insemination of semen from CWD positive bucks, MY GOD, indemnity will then have to be paid out to game farms all across the USA and abroad.

THE PAY TO PLAY CWD MUST STOP\$\$\$ ASAP\$\$\$

Research Project: Elucidating the Pathobiology and Transmission of Transmissible Spongiform Encephalopathies Location: Virus and Prion Research

Title: Exploring the possibility of CWD transmission through artificial insemination of semen from CWD positive bucks

Author

Cassmann, Eric

Greenlee, Justin

Submitted to: North American Deer Farmer

Publication Type: Trade Journal

Publication Acceptance Date: 7/1/2022

Publication Date: 7/20/2022

Citation: Cassmann, E.D., Greenlee, J.J. 2022.

Exploring the possibility of CWD transmission through artificial insemination of semen from CWD positive bucks. North American Deer Farmer. p. 107-109.

Interpretive Summary:

Technical Abstract: Artificial insemination is a popular method for herd management and reproduction in the cervid farming industry. There are numerous benefits including increased access to superior genetics, convenience, and increased farm revenue. In this article, we summarize the research that is underway to determine if semen from a CWD infected buck can transmit the disease. Some research has already been performed on the reproductive transmission of CWD in cervids. Scientists from Colorado State University used Muntjac deer to demonstrate that CWD positive does could transmit CWD to their fawns (1). In the study, Muntjac does were bred to CWD negative bucks. At the time of breeding, does were either in the early or late stage of CWD infection. Fawns from both doe groups were positive for CWD. More recent laboratory experiments on semen from CWD positive bucks have demonstrated the presence of CWD prions (2). Researchers used an amplification technique called PMCA (protein misfolding cyclic amplification). The technique amplifies low levels of CWD prions to a point where conventional antibody methods can detect them. The caveat to the discovery of CWD prions in semen is that we're unsure if the amount of CWD prions in semen is biologically relevant. In other words, is the level of CWD prions in semen sufficient to be infectious and cause disease in deer? In our present study, we are trying to answer that question. We obtained semen from a CWD positive buck. The semen was confirmed to be PMCA positive. For the study, we used the transcervical insemination method in three does. As of June 19th, a single fawn was born. Shortly after birth the fawn was separated to prevent environment CWD exposure. We are assessing both the does and the fawn for the development of CWD. The experiment is expected to last several years, and periodic sampling will help monitor progress. A second phase of the study will investigate the absolute susceptibility of white-tailed deer does to CWD after transcervical and/or vaginal exposure to large amounts of CWD prions. We plan to expose two does to brain suspension from a CWD positive deer. These does will also be monitored long term for the development of disease. If these does remain negative, it would indicate that CWD transmission to the dam is highly unlikely via reproductive tract exposure.

<https://www.ars.usda.gov/research/publications/publication/?seqNo115=395853>

TUESDAY, DECEMBER 31, 2019

In Vitro detection of Chronic Wasting Disease (CWD) prions in semen and reproductive tissues of white tailed deer bucks (Odocoileus virginianus TEXAS CWD, Have you been ThunderStruck, deer semen, straw bred bucks, super ovulation, and the potential TSE Prion connection, what if?

<https://chronic-wasting-disease.blogspot.com/2019/12/in-vitro-detection-of-chronic-wasting.html>

SUNDAY, FEBRUARY 16, 2020

***> Jerking for Dollars, Are Texas Politicians and Legislators Masturbating Deer For Money, and likely spreading CWD TSE Prion?

<https://chronic-wasting-disease.blogspot.com/2020/02/jerking-for-dollars-are-texas.html>

THURSDAY, JULY 10, 2014

supercalifragilisticxpialidocious or
superovulationcwdtsepriondocious ?

(It was noted with concern that hormone extracts could be manufactured by a veterinary surgeon for administration to animals under his care without any Medicines Act Control.) PITUITARY EXTRACT This was used to help cows super ovulate.

*** This tissue was considered to be of greatest risk of containing BSE and consequently transmitting the disease. ***

<http://www.bseinquiry.gov.uk/files/yb/1988/06/08011001.pdf>

NEW URL LINK;

<http://web.archive.org/web/20090718143059/http://www.bseinquiry.gov.uk/files/yb/1988/06/08011001.pdf>

<http://chronic-wasting-disease.blogspot.com/2014/07/supercalifragilisticexpialidocious-or.html>

Proposed Amendments to CWD Zone Rules

Your opinions and comments have been submitted successfully.

Thank you for participating in the TPWD regulatory process.

https://tpwd.texas.gov/business/feedback/public_comment/proposals/202208_cwd.phtml

THURSDAY, AUGUST 04, 2022

Texas Proposed Amendments to CWD Zone Rules Singeltary Submission

<https://chronic-wasting-disease.blogspot.com/2022/08/texas-proposed-amendments-to-cwd-zone.html>

Control of Chronic Wasting Disease OMB Control Number: 0579-0189 APHIS-2021-0004 Singeltary Submission

<https://www.regulations.gov/comment/APHIS-2021-0004-0002>

https://downloads.regulations.gov/APHIS-2021-0004-0002/attachment_1.pdf

Docket No. APHIS-2018-0011 Chronic Wasting Disease Herd Certification

<https://www.regulations.gov/document/APHIS-2018-0011-0003>

https://downloads.regulations.gov/APHIS-2018-0011-0003/attachment_1.pdf

Texas Chronic Wasting Disease Discovered at a Deer Breeding Facility in Gillespie County

Media Contacts: TAHC Communications public_info@tahc.texas.gov, 512.719.0750 TPWD Press Office news@tpwd.texas.gov, 512.389.8030

For Immediate Release

September 2, 2022

Chronic Wasting Disease Discovered at a Deer Breeding Facility in Gillespie County

AUSTIN, TX – Chronic Wasting Disease (CWD) has been discovered in a deer breeding facility in Gillespie County. The Texas Parks and Wildlife Department (TPWD) and Texas Animal Health Commission (TAHC) are collaboratively working to determine the source and extent of the first positive detection of the disease in this county.

After the mortality of a white-tailed deer on the premises was identified, tissue samples from the one-year-old buck were submitted by the deer breeding facility as part of a required CWD surveillance program. The samples were tested at the Texas A&M Veterinary Medical Diagnostic Laboratory (TVMDL) in College Station on August 17 and indicated the presence of CWD. The National Veterinary Services Laboratory in Ames, Iowa confirmed CWD in those tissue samples on August 30.

Immediate action has been taken to secure all deer located at the facility and plans to conduct additional CWD investigations are underway. Additionally, other breeding facilities that received deer or shipped deer to this facility, during the last five years, have been identified and placed under movement restrictions.

"Response staff are diligently working to conduct epidemiological investigations, but the nature of the disease makes definitive findings difficult to determine," said Dr. Andy Schwartz, TAHC State Veterinarian. "The incubation period of CWD can span many years creating disease detection and management challenges."

Animal health and wildlife officials will investigate to determine the extent of the disease within the facility and mitigate risk to Texas' CWD susceptible species. Quick detection of CWD can help mitigate the disease's spread.

"The discovery of CWD in this breeding facility is an unfortunate situation that TPWD and TAHC take very seriously," said John Silovsky, Wildlife Division Director for TPWD. "Both agencies will respond appropriately to this matter to protect the state's susceptible species from further disease exposure."

First recognized in 1967 in captive mule deer in Colorado, CWD has since been documented in captive and/or free-ranging deer in 30 states and three Canadian provinces. To date, 376 captive or free-ranging cervids — including white-tailed deer, mule deer, red deer and elk — in 15 Texas counties have tested positive for CWD. For more information on previous detections visit the CWD page on the TPWD website.

Testing for CWD allows wildlife biologists and animal health officials to get a clearer picture of the prevalence and distribution of the disease across Texas. Proactive monitoring improves the state's response time to a CWD detection and can greatly reduce the risk of the disease further spreading to neighboring captive and free-ranging populations. With each discovery of a new CWD positive area in the state, CWD zones are established as a strategy to manage and contain the disease. TPWD officials will be working towards delineating and establishing a new zone in Gillespie County to be implemented later this year.

Hunters in surveillance and containment zones must meet submission requirements of harvested CWD susceptible species. TPWD will be providing additional information to landowners and hunters in Gillespie County regarding CWD sampling locations and options to have their deer tested. Additionally, hunters outside of established surveillance and containment zones are encouraged to have their deer tested.

zones are encouraged to voluntarily submit their harvest for testing at a check station, for free, before heading home from field. A map of TPWD check stations for all CWD zones can be found on the TPWD website.

CWD is a fatal neurological disease found in certain cervids, including deer, elk, moose and other members of the deer family. The disease is highly transmissible and can remain infectious on the landscape for several years. If left unmanaged, CWD can have long-term impacts on the native deer herd and local economies. Clinical signs may include progressive weight loss, stumbling or tremors with a lack of coordination, excessive thirst, salivation or urination, loss of appetite, teeth grinding, abnormal head posture and/or drooping ears. These signs may not become evident until long after animals have become infected. Therefore, testing is the best tool available for detecting CWD at an early stage and containing it with appropriate management strategies.

To date there is no evidence that CWD poses a risk to humans or non-cervids. However, as a precaution, the U.S. Centers for Disease Control and the World Health Organization recommend not to consume meat from infected animals.

For more information about CWD, visit the TPWD web site or the TAHC web site.

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https://www.tahc.texas.gov/news/2022/2022-09-02_CWD-GillespieCo.pdf

Texas CWD Count As Of Late August 2022 Totals 376 TPWC Implements Two Year Surveillance Zone Four Counties

TPW Commission Implements Two Year Chronic Wasting Disease Surveillance Zone in Four Counties

Sept. 1, 2022 Media Contact: TPWD News, Business Hours, 512-389-8030

AUSTIN— A surveillance zone covering almost 200,000 acres in Duval, Jim Wells, Live Oak and McMullen counties will be implemented for two years after feedback was received in the August meeting of the Texas Parks and Wildlife (TPW) Commission. This zone will take effect prior to the 2022-2023 hunting season and TPW commissioners will consider the resulting data presented by Texas Parks and Wildlife Department (TPWD) staff to assess the need for continued surveillance in the established zone.

This zone will include land between U.S. Highway 281 to the east, Farm to Market Road 624 to the north and U.S. Highway 59 to the west. The southern border follows a series of roads including County Road 101, Highway 44, County Roads 148, 172, 170, and 120.

This zone also includes the cities of Alice and Freer, as well as highways 59, 44, and 281 between the cities and the main body of the surveillance zone. This will provide a legal means for hunters to transport whole carcasses to deer-processing facilities and/or CWD check stations located in those cities rather than having to quarter the carcasses first.

As of late August 2022, 376 captive or free-ranging cervids — including white-tailed deer, mule deer, red deer and elk — Texas counties have tested positive for CWD. First recognized in 1967 in captive mule deer in Colorado, CWD has since documented in captive and/or free-ranging deer in 30 states and three Canadian provinces.

Testing for CWD allows wildlife biologists to get a clearer picture of the presence of the disease statewide. Proactive monitoring improves the state's response time to a CWD detection and can greatly reduce the risk of the disease spreading to neighboring captive and free-ranging deer populations.

Hunters outside of established surveillance and containment zones are encouraged to voluntarily submit their harvest for testing at a check station for free before heading home from the field. A map of TPWD check stations can be found on the TPWD website.

CWD is a fatal neurological disease found in certain cervids, including deer, elk, moose and other members of the deer family. The disease is highly contagious, never goes dormant and can remain infectious on the landscape for several years. If left unmanaged, CWD can have long-term impacts on the native deer herd and local economies. Symptoms may not become evident until long after animals have become infected, so testing is the best tool available for detecting CWD at the earliest stage of infection possible and containing it with appropriate management strategies. Clinical signs may include progressive weight loss, stumbling or tremors with a lack of coordination, excessive thirst, salivation or urination, loss of appetite, teeth grinding, abnormal head posture and/or drooping ears.

To date there is no evidence that CWD poses a risk to humans or non-cervids. However, as a precaution, the U.S. Center for Disease Control and the World Health Organization recommend against consuming meat from infected animals.

For more information about CWD, visit the TPWD web site or the TAHC web site.

<https://tpwd.texas.gov/newsmedia/releases/?req=20220901a>

THURSDAY, SEPTEMBER 01, 2022

Texas CWD Count As Of Late August 2022 Totals 376 TPWC Implements Two Year Surveillance Zones In Four Counties

<https://chronic-wasting-disease.blogspot.com/2022/09/texas-cwd-count-as-of-late-august-2022.html>

CWD Positives in Texas

CWD Positive

Confirmation Date	Free Range/Captive	County	Source	Species	Sex	Age
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[illegible]

[illegible]

2022-01-07	Breeder Deer	Uvalde	Facilities #7 & 8	White-tailed Deer	F	1.4
2022-01-07	Breeder Deer	Uvalde	Facilities #7 & 8	White-tailed Deer	M	3.4
2022-01-07	Breeder Deer	Uvalde	Facilities #7 & 8	White-tailed Deer	F	2.4
2022-01-07	Breeder Deer	Uvalde	Facilities #7 & 8	White-tailed Deer	F	1.4
2022-01-07	Breeder Deer	Uvalde	Facilities #7 & 8	White-tailed Deer	F	1.4
2022-01-07	Breeder Deer	Uvalde	Facilities #7 & 8	White-tailed Deer	M	1.4
2022-01-07	Breeder Deer	Uvalde	Facilities #7 & 8	White-tailed Deer	M	2.4
2022-01-07	Breeder Deer	Uvalde	Facilities #7 & 8	White-tailed Deer	F	1.4
2022-01-07	Breeder Deer	Uvalde	Facilities #7 & 8	White-tailed Deer	F	1.4
2022-01-07	Breeder Deer	Uvalde	Facilities #7 & 8	White-tailed Deer	F	1.4
2022-01-07	Breeder Deer	Uvalde	Facilities #7 & 8	White-tailed Deer	M	1.4
2022-01-07	Breeder Deer	Uvalde	Facilities #7 & 8	White-tailed Deer	M	1.4
2022-01-07	Breeder Deer	Uvalde	Facilities #7 & 8	White-tailed Deer	M	1.4
2022-01-07	Breeder Deer	Uvalde	Facilities #7 & 8	White-tailed Deer	M	1.4
2022-01-07	Breeder Deer	Uvalde	Facilities #7 & 8	White-tailed Deer	M	1.4
2022-01-07	Breeder Deer	Uvalde	Facilities #7 & 8	White-tailed Deer	M	1.4
2022-01-07	Breeder Deer	Uvalde	Facilities #7 & 8	White-tailed Deer	M	2.4
2022-01-07	Breeder Deer	Uvalde	Facilities #7 & 8	White-tailed Deer	M	2.4
2022-01-07	Breeder Deer	Uvalde	Facilities #7 & 8	White-tailed Deer	M	2.4
2022-01-07	Breeder Deer	Uvalde	Facilities #7 & 8	White-tailed Deer	M	2.4
2022-01-07	Breeder Deer	Uvalde	Facilities #7 & 8	White-tailed Deer	F	1.4
2022-01-07	Breeder Deer	Uvalde	Facilities #7 & 8	White-tailed Deer	F	1.4
2022-01-07	Breeder Deer	Uvalde	Facilities #7 & 8	White-tailed Deer	M	5.4
2022-01-06	Free Range	Medina	N/A	White-tailed Deer	M	2.5
2021-12-28	Breeder Deer	Uvalde	Facilities #7 & 8	White-tailed Deer	M	3.4
2021-12-28	Breeder Deer	Uvalde	Facilities #7 & 8	White-tailed Deer	M	3.4
2021-12-13	Free Range	Medina	N/A	White-tailed Deer	M	3.5
2021-12-13	Breeder Deer	Duval	Facility #13	White-tailed Deer	F	4.4

Showing 1 to 100 of 369

National CWD Tracking Map

snip... see full listing of CWD positives at;

<https://tpwd.texas.gov/huntwild/wild/diseases/cwd/tracking/>

“Regarding the current situation involving CWD in permitted deer breeding facilities, TPWD records indicate that within the last five years, the seven CWD-positive facilities transferred a total of 2,530 deer to 270 locations in 102 counties and eight locations in Mexico (the destinations included 139 deer breeding facilities, 118 release sites, five Deer Management Permit sites, and three nursing facilities)

It is apparent that prior to the recent emergency rules, the CWD detection rules were ineffective at detecting CWD earlier in the deer breeding facilities where it was eventually discovered and had been present for some time; this creates additional concern regarding adequate mitigation of the risk of transferring CWD-positive breeder deer to release sites where released breeder deer come into contact with free-ranging deer...

Commission Agenda Item No. 5 Exhibit B

DISEASE DETECTION AND RESPONSE RULES

PROPOSAL PREAMBLE

1. Introduction.

snip...

A third issue is the accuracy of mortality reporting. Department records indicate that for each of the last five years an average of 26 deer breeders have reported a shared total of 159 escapes. Department records for the same time period indicate an average of 31 breeding facilities reported a shared total of 825 missing deer (deer that department records indicate should be present in the facility, but cannot be located or verified).

<https://tpwd.texas.gov/business/feedback/meetings/2022/1104/agenda/item.phtml?item=5>

Counties where CWD Exposed Deer were Released, September 2021

<https://tpwd.texas.gov/documents/257/CWD-Trace-OutReleaseSites.pdf>

Number of CWD Exposed Deer Released by County, September 2021

<https://tpwd.texas.gov/documents/258/CWD-Trace-OutReleaseSites-NbrDeer.pdf>

CHRONIC WASTING DISEASE CASES CWD - STATUS OF CAPTIVE HERDS Updated July 2022

https://www.aphis.usda.gov/animal_health/animal_diseases/cwd/downloads/status-of-captive-herds.pdf

PRICE OF CWD TSE PRP POKER GOES UP, WHO'S ALL IN\$\$\$

just out!

Transmission of cervid prions to humanized mice demonstrates the zoonotic potential of CWD

Samia Hannaoui¹ · Irina Zemlyankina¹ · Sheng Chun Chang¹ · Maria Immaculata Arifn¹ · Vincent Béringue² · Debbie McKenzie³ · Hermann M. Schatzl¹ · Sabine Gilch¹

Received: 24 May 2022 / Revised: 5 August 2022 / Accepted: 7 August 2022

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Abstract

Prions cause infectious and fatal neurodegenerative diseases in mammals. Chronic wasting disease (CWD), a prion disease of cervids, spreads efficiently among wild and farmed animals. Potential transmission to humans of CWD is a growing concern due to its increasing prevalence. Here, we provide evidence for a zoonotic potential of CWD prions, and its probable signature using mice expressing human prion protein (PrP) as an infection model. Inoculation of these mice with deer CWD isolates resulted in atypical clinical manifestation with prion seeding activity and efficient transmissible infectivity in the brain and, remarkably, in feces, but without classical neuropathological or Western blot appearances of prion diseases. Intriguingly, the protease-resistant PrP in the brain resembled that found in a familial human prion disease and was transmissible upon second passage. Our results suggest that CWD might infect humans, although the transmission barrier is likely higher compared to zoonotic transmission of cattle prions. Notably, our data suggest a different clinical presentation, prion signature

and tissue tropism, which causes challenges for detection by current diagnostic assays. Furthermore presence of infectious prions in feces is concerning because if this occurs in humans, it is a source for human-to-human transmission. These findings have strong implications for public health and CWD management.

Keywords Chronic wasting disease · CWD · Zoonotic potential · Prion strains · Zoonotic prions

HIGHLIGHTS OF THIS STUDY

=====

Our results suggest that CWD might infect humans, although the transmission barrier is likely higher compared to zoonotic transmission of cattle prions. Notably, our data suggest a different clinical presentation, prion signature, and tissue tropism, which causes challenges for detection by current diagnostic assays. Furthermore, the presence of infectious prions in feces is concerning because if this occurs in humans, it is a source for human-to-human transmission. These findings have strong implications for public health and CWD management.

In this study, we evaluated the zoonotic potential of CWD using a transgenic mouse model overexpressing human M129-PrPC (tg650 [12]). We inoculated tg650 mice intracerebrally with two different CWD isolates, Wisc-1 and 116AG [22, 23, 27, 29]. We demonstrate that this transgenic line was susceptible to infection with CWD prions and displayed a distinct leading clinical sign, an atypical PrP signature and unusual fecal shedding of infectious prions. Importantly, these prions generated by the human PrP transgenic mice were transmissible upon passage. Our results are the first evidence of a zoonotic risk of CWD when using one of the most common CWD strains, Wisc-1/CWD1 for infection. We demonstrated in a human transgenic mouse model that the species barrier for transmission of CWD to humans is not absolute. The fact that its signature was not typical raises the questions whether CWD would manifest in humans as a subclinical infection, whether it would arise through direct or indirect transmission including an intermediate host, or a silent to uncovered human-to-human transmission, whether current detection techniques will be sufficient to unveil its presence.

Our findings strongly suggest that CWD should be regarded as an actual public health risk. Here, we humanized mice to show that CWD prions can cross the species barrier to humans, and remarkably, infectious prions can be excreted in feces.

Our results indicate that if CWD crosses the species-barrier to humans, it is unlikely to resemble the most common forms of human prion diseases with respect to clinical signs, tissue tropism and PrPSc

signature. For instance, PrPSc in variable protease-sensitive prionopathy (VPSPr), a sporadic form of human prion disease, and in the genetic form Gerstmann-Sträussler-Scheinker syndrome (GSS) is defined by an atypical PK-resistant PrPSc fragment that is non-glycosylated and truncated at both C- and N-termini, with a molecular weight between 6 and 8 kDa [24, 44–46]. These biochemical features are unique and distinctive from PrPSc (PrP27-30) found in most other human or animal prion disease. The atypical PrPSc signature detected in brain homogenate of tg650 mice #321 (1st passage) and #3063 (2nd passage), and the 7–8 kDa fragment (Figs. 2, 4) are very similar to that of GSS, both in terms of migration profile and the N-terminal cleavage site.

CWD in humans might remain subclinical but with PrPSc deposits in the brain with an unusual morphology that does not resemble the patterns usually seen in different prion diseases (e.g., mouse #328; Fig. 3), clinical with untraceable abnormal PrP (e.g., mouse #327) but still transmissible and uncovered upon subsequent passage (e.g., mouse #3063; Fig. 4), or prions have other reservoirs than the usual ones, hence the presence of infectivity in feces (e.g., mouse #327) suggesting a potential for human-to-human transmission and a real iatrogenic risk that might be unrecognizable.

suggesting a potential for human-to-human transmission and a real iatrogenic risk that might be unrecognizable.

These findings have strong implications for public health and CWD management.

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Supplementary Information The online version contains supplementary material available at

<https://doi.org/10.1007/s00401-022-02482-9>

snip...see full text;

<https://link.springer.com/article/10.1007/s00401-022-02482-9>

<https://link.springer.com/content/pdf/10.1007/s00401-022-02482-9.pdf>

EFSA Panel on Biological Hazards (BIOHAZ) Antonia Ricci Ana Allende Declan Bolton Marianne Chemaly Robert Davies Pablo Salvador Fernández Escámez ... See all authors

First published: 17 January 2018 <https://doi.org/10.2903/j.efsa.2018.5132>

also, see;

8. Even though human TSE-exposure risk through consumption of game from European cervids can assumed to be minor, if at all existing, no final conclusion can be drawn due to the overall lack of scientific data.

***> In particular the US data do not clearly exclude the possibility of human (sporadic or familial) TSE development due to consumption of venison.

<https://efsa.onlinelibrary.wiley.com/doi/full/10.2903/j.efsa.2018.5132>

Prion Infectivity in Fat of Deer with Chronic Wasting Disease▽

Brent Race#, Kimberly Meade-White#, Richard Race and Bruce Chesebro* + Author Affiliations

In mice, prion infectivity was recently detected in fat. Since ruminant fat is consumed by humans and to animals, we determined infectivity titers in fat from two CWD-infected deer. Deer fat devoid of muscle contained low levels of CWD infectivity and might be a risk factor for prion infection of other species.

<http://jvi.asm.org/content/83/18/9608.full>

Prions in Skeletal Muscles of Deer with Chronic Wasting Disease

Here bioassays in transgenic mice expressing cervid prion protein revealed the presence of infectious prions in skeletal muscles of CWD-infected deer, demonstrating that humans consuming or handling meat from CWD-infected deer are at risk to prion exposure.

Research Paper

Cellular prion protein distribution in the vomeronasal organ, parotid, and scent glands of white-tailed deer and mule deer

Anthony Ness, Aradhana Jacob, Kelsey Saboraki, Alicia Otero, Danielle Gushue, Diana Martinez Moreno, Melanie de Peña, Xinli Tang, Judd Aiken, Susan Lingle & Debbie McKenzieORCID Icon show less

Pages 40-57 | Received 03 Feb 2022, Accepted 13 May 2022, Published online: 29 May 2022

Download citation

<https://doi.org/10.1080/19336896.2022.2079888>

ABSTRACT

Chronic wasting disease (CWD) is a contagious and fatal transmissible spongiform encephalopathy affecting species of the cervidae family. CWD has an expanding geographic range and complex, poorly understood transmission mechanics. CWD is disproportionately prevalent in wild male mule deer and male white-tailed deer. Sex and species influences on CWD prevalence have been hypothesized to be related to animal behaviours that involve deer facial and body exocrine glands. Understanding CWD transmission potential requires a foundational knowledge of the cellular prion protein (PrPC) in glands associated with cervid behaviours. In this study, we characterized the presence and distribution of PrPC in six integumentary and two non-integumentary tissues of hunter-harvested mule deer (*Odocoileus hemionus*) and white-tailed deer (*O. virginianus*). We report that white-tailed deer expressed significantly more PrPC than their mule deer in the parotid, metatarsal, and interdigital glands. Females expressed more PrPC than males in the forehead and preorbital glands. The distribution of PrPC within the integumentary exocrine glands of the face and legs were localized to glandular cells, hair follicles, epidermis, and immune cell infiltrates. All tissues examined expressed sufficient quantities of PrPC to serve as possible sites of prion initial infection, propagation, and shedding.

TUESDAY, AUGUST 23, 2022

Transmission of cervid prions to humanized mice demonstrates the zoonotic potential of CWD

These findings have strong implications for public health and CWD management.

snip...see full text;

<https://link.springer.com/article/10.1007/s00401-022-02482-9>

<https://link.springer.com/content/pdf/10.1007/s00401-022-02482-9.pdf>

Transmission of cervid prions to humanized mice demonstrates the zoonotic potential of CWD

<https://chronic-wasting-disease.blogspot.com/2022/08/transmission-of-cervid-prions-to.html>

Thursday, October 28, 2021

Chronic Wasting Disease (CWD) TSE Prion Zoonosis, friendly fire, iatrogenic transmission, blood products, sporadic CJD, what if?

<https://itseprion.blogspot.com/2021/10/chronic-wasting-disease-cwd-tse-prion.html>

THURSDAY, SEPTEMBER 01, 2022

Texas CWD Count As Of Late August 2022 Totals 376 TPWC Implements Two Year Surveillance Z Four Counties

<https://chronic-wasting-disease.blogspot.com/2022/09/texas-cwd-count-as-of-late-august-2022.html>

WEDNESDAY, SEPTEMBER 07, 2022

Exploring the possibility of CWD transmission through artificial insemination of semen from CWD positive bucks

<https://chronic-wasting-disease.blogspot.com/2022/09/exploring-possibility-of-cwd.html>

TRANSMISSIBLE SPONGIFORM ENCEPHALOPATHY TSE PRION MAD COW TYPE DISEASE

THE tse prion aka mad cow type disease is not your normal pathogen.

The TSE prion disease survives ashing to 600 degrees celsius, that's around 1112 degrees fahrenheit.

you cannot cook the TSE prion disease out of meat.

you can take the ash and mix it with saline and inject that ash into a mouse, and the mouse will go down with TSE.

Prion Infected Meat-and-Bone Meal Is Still Infectious after Biodiesel Production as well.

the TSE prion agent also survives Simulated Wastewater Treatment Processes.

IN fact, you should also know that the TSE Prion agent will survive in the environment for years, if not decades.

you can bury it and it will not go away.

The TSE agent is capable of infected your water table i.e. Detection of protease-resistant cervid prion protein in water from CWD-endemic area.

it's not your ordinary pathogen you can just cook it out and be done with.

***> that's what's so worrisome about iatrogenic mode of transmission, a simple autoclave will not kill this TSE prion agent

1: J Neurol Neurosurg Psychiatry 1994 Jun;57(6):757-8

***> Transmission of Creutzfeldt-Jakob disease to a chimpanzee by electrodes contaminated during neurosurgery.

Gibbs CJ Jr, Asher DM, Koblitz A, Amyx HL, Sulima MP, Gajdusek DC.

Laboratory of Central Nervous System Studies, National Institute of

Neurological Disorders and Stroke, National Institutes of Health,

Bethesda, MD 20892.

Stereotactic multicontact electrodes used to probe the cerebral cortex of a middle aged woman with progressive dementia were previously implicated in the accidental transmission of Creutzfeldt-Jakob disease (CJD) to two younger patients. The diagnoses of CJD have been confirmed for all three cases. More than two years after their last use in humans, after three cleanings and repeated sterilisation in ethanol and formaldehyde vapour, the electrodes were implanted in the cortex of a chimpanzee. Eighteen months later the animal became ill with CJD. This finding serves to re-emphasise the potential danger posed by reuse of instruments contaminated with the agents of spongiform encephalopathies, even after scrupulous attempts to clean them.

PMID: 8006664 [PubMed - indexed for MEDLINE]

<https://www.ncbi.nlm.nih.gov/pubmed/8006664?dopt=Abstract>

ENVIRONMENT FACTORS FOR THE TRANSMISSION OF CWD TSE PRP

Sensitive detection of chronic wasting disease prions recovered from environmentally relevant surfaces

Environment International

Available online 13 June 2022, 107347

Environment International

Sensitive detection of chronic wasting disease prions recovered from environmentally relevant surfaces

Qi Yuana, Gag e Rowdenb, Tiffany M. Wolfc, Marc D. Schwabenlanderb, Peter A. Larsenb, Shannon L. Bartelt-Hunt d, Jason C. Bartza

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Received 26 April 2022, Revised 8 June 2022, Accepted 9 June 2022, Available online 13 June 2022.

<https://doi.org/10.1016/j.envint.2022.107347>

Highlights • An innovative method for prion recovery from swabs was developed.

- Recovery of prions decreased as swab-drying time was increased.
- Recovery of CWD prions from stainless steel and glass was approximately 30%.
- RT-QuIC enhanced CWD prion detection by 4 orders of magnitude.
- Surface-recovered CWD prion was sufficient for efficient RT-QuIC detection.

Abstract

Chronic wasting disease (CWD) has been identified in 30 states in the United States, four provinces in Canada, and recently emerged in Scandinavia. The association of CWD prions with environmental materials such as soil, plants, and surfaces may enhance the persistence of CWD prion infectivity in the environment exacerbating disease transmission. Identifying and quantifying CWD prions in the environment is significant for prion monitoring and disease transmission control. A systematic method for CWD prion quantification from associated environmental materials, however, does not exist. In this study, we developed an innovative method for extracting prions from swabs and recovering CWD prions swabbed from different types of surfaces including glass, stainless steel, and wood. We found that samples dried on swabs were unfavorable for prion extraction, with the greatest prion recovery from wet swabs. Using this swabbing technique, the recovery of CWD prions from glass or stainless steel was approximately 30% in most cases, whereas that from wood was undetectable by conventional prion immunodetection techniques. Real-time quake-induced conversion (RT-QuIC) analysis of these same samples resulted in an increase of the detection limit of CWD prions from stainless steel by 4 orders of magnitude. More importantly, the RT-QuIC detection of CWD prions recovered from stainless steel surfaces using this method was similar to the original CWD prion load applied to the surface. This combined surface swabbing and RT-QuIC detection method provides an ultrasensitive means for prion detection across many settings and applications.

snip...

5. Conclusions

Chronic wasting disease is spreading in North America and it is hypothesized that in CWD-endemic areas environmental persistence of CWD prions can exacerbate disease transmission. The development of a sensitive CWD prion detection method from environmentally relevant surfaces is significant for monitoring, risk assessment, and control of CWD. In this study, we developed a novel swab-extraction procedure for field deployable sampling of CWD prions from stainless steel, glass, and wood. We found that extended swab-drying was unfavorable for extraction, indicating that hydrated storage of swabs after sampling aided in prion recovery. Recoverable CWD prions from stainless steel and glass was approximately 30%, which was greater than from wood. RT-QuIC analysis of the swab extracts resulted in an increase of the detection limit of CWD prions from stainless steel by 4 orders of magnitude compared to conventional immunodetection techniques. More importantly, the RT-QuIC detection of CWD prions recovered from stainless steel surfaces using this developed method was similar to the original CWD prion load without surface contact. This method of prion sampling and recovery, in combination with ultrasensitive detection methods, allows for prion detection from contaminated environmental surfaces.

<https://www.sciencedirect.com/science/article/pii/S0160412022002744?via%3Dihub>

Research Paper

Cellular prion protein distribution in the vomeronasal organ, parotid, and scent glands of white-tailed deer and mule deer

Anthony Ness, Aradhana Jacob, Kelsey Saboraki, Alicia Otero, Danielle Gushue, Diana Martinez Moreno, Melanie de Peña, Xinli Tang, Judd Aiken, Susan Lingle & Debbie McKenzie

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Download citation

<https://doi.org/10.1080/19336896.2022.2079888>

ABSTRACT

Chronic wasting disease (CWD) is a contagious and fatal transmissible spongiform encephalopathy affecting species of the cervidae family. CWD has an expanding geographic range and complex, poorly understood transmission mechanics. CWD is disproportionately prevalent in wild male mule deer and male white-tailed deer. Sex and species influences on CWD prevalence have been hypothesized to be related to animal behaviours that involve deer facial and body exocrine glands. Understanding CWD transmission potential requires a foundational knowledge of the cellular prion protein (PrPC) in glands associated with cervid behaviours. In this study, we characterized the presence and distribution of PrPC in six integumentary and two non-integumentary tissues of hunter-harvested mule deer (*Odocoileus hemionus*) and white-tailed deer (*O. virginianus*). We report that white-tailed deer expressed significantly more PrPC than their mule deer in the parotid, metatarsal, and interdigital glands. Females expressed more PrPC than males in the forehead and preorbital glands. The distribution of PrPC within the integumentary exocrine glands of the face and legs were localized to glandular cells, hair follicles, epidermis, and immune cell infiltrates. All tissues examined expressed sufficient quantities of PrPC to serve as possible sites of prion initial infection, propagation, and shedding.

KEYWORDS: Prion chronic wasting diseases sex differences species differences disease prevalence cervid protein expression glands

<https://www.tandfonline.com/doi/full/10.1080/19336896.2022.2079888>

Paper

Rapid recontamination of a farm building occurs after attempted prion removal

Kevin Christopher Gough BSc (Hons), PhD Claire Alison Baker BSc (Hons) Steve Hawkins MIBiol Hugh Simmons BVSc, MRCVS, MB MA Timm Konold DrMedVet, PhD, MRCVS ... See all authors

First published: 19 January 2019 <https://doi.org/10.1136/vr.105054>

The data illustrates the difficulty in decontaminating farm buildings from scrapie, and demonstrates the likely contribution of farm dust to recontamination of these environments to levels that are capable of causing disease.

snip...

This study clearly demonstrates the difficulty in removing scrapie infectivity from the farm environment. Practical and effective prion decontamination methods are still urgently required for decontamination of scrapie infectivity from farms that have had cases of scrapie; this is particularly relevant for scrapie-positive goatherds, which currently have limited genetic resistance to scrapie within commercial breeds.²⁴ This is very likely to have parallels with control efforts for CWD in cervids.

<https://bvajournals.onlinelibrary.wiley.com/doi/abs/10.1136/vr.105054>

***> This is very likely to have parallels with control efforts for CWD in cervids.

<https://pubmed.ncbi.nlm.nih.gov/30602491/>

***> Infectious agent of sheep scrapie may persist in the environment for at least 16 years

***> Nine of these recurrences occurred 14–21 years after culling, apparently as the result of environmental contamination, but outside entry could not always be absolutely excluded.

Infectious agent of sheep scrapie may persist in the environment for at least 16 years Free

Gudmundur Georgsson¹, Sigurdur Sigurdarson², Paul Brown³

<http://www.microbiologyresearch.org/docserver/fulltext/jgv/87/12/3737.pdf?expires=1540908280&id=id&accname=guest&checksum=ED0572E1E5B272C100A32212A3E37>

Front. Vet. Sci., 14 September 2015 | <https://doi.org/10.3389/fvets.2015.00032>

Objects in contact with classical scrapie sheep act as a reservoir for scrapie transmission

imageTimm Konold^{1*}, imageStephen A. C. Hawkins², imageLisa C. Thurston³, imageBen C. Maddison⁴, imageKevin C. Gough⁵, imageAnthony Duarte¹ and imageHugh A. Simmons¹

The findings of this study highlight the role of field furniture used by scrapie-infected sheep to act as a reservoir for disease introduction although infectivity declines considerably if the field furniture has not been in contact with scrapie-infected sheep for several months. PMCA may not be as sensitive as VRQ/VRQ sheep to test for environmental contamination.

snip...

Discussion

snip...

In conclusion, the results in the current study indicate that removal of furniture that had been in contact with scrapie-infected animals should be recommended, particularly since cleaning and decontamination may not effectively remove scrapie infectivity (31), even though infectivity declines considerably if the pasture and the field furniture have not been in contact with scrapie-infected sheep for several months. As sPMCA failed to detect PrPSc in furniture that was subjected to weathering, even though exposure led to infection in sheep, this method may not always be reliable in predicting the risk of scrapie infection through environmental contamination.

<http://journal.frontiersin.org/article/10.3389/fvets.2015.00032/full>

***> 172. Establishment of PrPCWD extraction and detection methods in the farm soil

Kyung Je Park, Hoo Chang Park, In Soon Roh, Hyo Jin Kim, Hae-Eun Kang and Hyun Joo Sohn

Foreign Animal Disease Division, Animal and Plant Quarantine Agency, Gimcheon, Gyeongsangbuk-do, Korea

Conclusions: Our studies showed that PrPCWD persist in 0.001% CWD contaminated soil for at least 4 years and natural CWD-affected soil. When cervid reintroduced into CWD outbreak farm, the strict decontamination procedures of the infectious agent should be performed in the environment of CWD-affected cervid habitat.

<https://www.tandfonline.com/doi/full/10.1080/19336896.2019.1615197>

New studies on the heat resistance of hamster-adapted scrapie agent: Threshold survival after ashing at 600°C suggests an inorganic template of replication

<http://www.pnas.org/content/97/7/3418.full>

Prion Infected Meat-and-Bone Meal Is Still Infectious after Biodiesel Production

<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2493038/>

MONDAY, APRIL 19, 2021

Evaluation of the application for new alternative biodiesel production process for rendered fat including Category 1 animal by-products RepCat® process, AT) ???

<https://transmissiblespongiformencephalopathy.blogspot.com/2021/04/evaluation-of-application-for-new.html>

Detection of protease-resistant cervid prion protein in water from a CWD-endemic area

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2802782/pdf/prion0303_0171.pdf

A Quantitative Assessment of the Amount of Prion Diverted to Category 1 Materials and Wastewater During Processing

<http://onlinelibrary.wiley.com/doi/10.1111/j.1539-6924.2012.01922.x/abstract>

Rapid assessment of bovine spongiform encephalopathy prion inactivation by heat treatment in yellow grease produced in the industrial manufacturing process of meat and bone meals

<https://bmcvetres.biomedcentral.com/track/pdf/10.1186/1746-6148-9-134.pdf>

THURSDAY, FEBRUARY 28, 2019

BSE infectivity survives burial for five years with only limited spread

<https://link.springer.com/content/pdf/10.1007%2Fs00705-019-04154-8.pdf>

5 or 6 years quarantine is NOT LONG ENOUGH FOR CWD TSE PRION !!!

QUARANTINE NEEDS TO BE 21 YEARS FOR CWD TSE PRION !

FRIDAY, APRIL 30, 2021

Should Property Evaluations Contain Scrapie, CWD, TSE PRION Environmental Contamination of the land?

***> Confidential!!!!

***> As early as 1992-3 there had been long studies conducted on small pastures containing scrapie infected sheep at the sheep research station associated with the Neuropathogenesis Unit in Edinburgh, Scotland. Whether these are documented don't know. But personal recounts both heard and recorded in a daily journal indicate that leaving the pastures free and replacing the topsoil completely at least 2 feet of thickness each year for SEVEN years....and then when very clean (proven scrapie free) sheep were placed on these small pastures.... the new sheep also broke out with scrapie and passed it to offspring. I am not sure that TSE contaminated ground could ever be free of the agent!! A very frightening revelation!!!

---end personal email---end...tss

and so it seems...

Scrapie Agent (Strain 263K) Can Transmit Disease via the Oral Route after Persistence in Soil over Years

Published: May 9, 2007

snip...

Our results showed that 263K scrapie agent can persist in soil at least over 29 months. Strikingly, not only the contaminated soil itself retained high levels of infectivity, as evidenced by oral administration to Syrian hamsters, but also feeding of aqueous soil extracts was able to induce disease in the reporter animals. We could also demonstrate that PrPSc in soil,

extracted after 21 months, provides a catalytically active seed in the protein misfolding cyclic amplification (PMCA) reaction. PMCA opens therefore a perspective for considerably improving the detectability of prions in soil samples from the field.

snip...

<https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0000435>

Dr. Paul Brown Scrapie Soil Test BSE Inquiry Document

<https://web.archive.org/web/20090505211734/http://www.bseinquiry.gov.uk/files/sc/Seac07/tab03.pdf>

Heading Off a Wildlife Epidemic

Charles E. Gilliland (Aug 18, 2021)

The Takeaway

Landowners in certain parts of the state need to be aware of chronic wasting disease, which can greatly reduce the number of deer. While there are no known cures or ways to eradicate the disease, the Texas Parks and Wildlife Department is taking measures to reduce its spread.

A multitude of risks threaten to undermine Texas landowners' efforts to manage their land. Some of those spring from past activities but can leave invisible living legacies behind. Anthrax, for example. An outbreak of anthrax in livestock leaves a scattering of spores across the countryside that can activate and infect replacement herds.

Chronic wasting disease (CWD) in wildlife poses a similar potential problem for landowners in certain parts of Texas. CWD infects members of the Cervidae family, namely deer, elk, moose, etc. CWD does not pose dangers to livestock, and scientists have not found evidence of the disease infecting humans. However, it is always fatal to stricken wildlife, threatening a destructive wave of infections among deer herds where the disease has spread. Therefore, CWD poses a direct threat to one of the primary motives for owning rural land: wildlife herd management.

Profiling CWD

CWD belongs to a family of disorders known as prion diseases, or transmissible spongiform encephalopathies (TSEs). It includes Creutzfeldt-Jakob disease in humans and bovine spongiform encephalopathy, or mad cow disease, in cattle. The Centers for Disease Control and Prevention describes these maladies in detail:

The causative agents of TSEs are believed to be prions. The term "prions" refers to abnormal, pathogenic agents that are transmissible and are able to induce abnormal folding of specific normal cellular proteins called prion proteins that are found most abundantly in the brain. The functions of these normal prion proteins are still not completely understood. The abnormal folding of the prion proteins leads to brain damage and the characteristic signs and symptoms of the disease. Prion diseases are usually rapidly progressive and always fatal.

CWD symptoms include dramatic weight loss, stumbling, listlessness, decreased social interaction, loss of fear of human and excessive salivating. However, animals typically exhibit no symptoms until 18-24 months after contracting the disease. In addition, these symptoms could be caused by other conditions, so formal testing is needed to reliably diagnose CWD.

Obviously, an infected animal may spread the disease to other members of the herd during the nonsymptomatic phase of infection. Perhaps even worse, the animal casts off prions, so an infected animal will cast off diseased prions. Therefore, an infected herd can leave infection in the soil and remain infectious to host animals, much like anthrax.

CWD Comes to Texas

Scientists first identified CWD in mule deer in Colorado in 1967. Since that time, CWD has spread to Wyoming, Montana, Wisconsin, Pennsylvania, and other states.

CWD first appeared in Hudspeth County in 2012 in free-ranging mule deer. In 2015, the Texas Parks and Wildlife Department (TPWD) found CWD in white-tailed deer in captive facilities in Medina County. By 2021, a total of 224 cases had been identified in 13 counties. Tests confirmed cases in two red deer, four elk, 49 mule deer, and 169 white-tailed deer.

See the TPWD site for details. Texas A&M AgriLife Extension provides a good overview of the disease in *A Guide to Chronic Wasting Disease (CWD) in Texas Cervids*.

Containing the Spread

Currently, there is no known cure for the disease nor any mechanism to eradicate it. Therefore, TPWD management of CWD seeks to contain the spread to areas of confirmed infections.

The plan has established five CWD zones with confirmed infections: Kimble County Zone, Trans-Pecos Zone, South Central Zone, Panhandle Zone, and Val Verde County Zone. The latest edition of the TPWD Outdoor Annual provides maps of each zone indicating official stations performing testing for CWD. All hunters harvesting animals in these zones must take them to one of these stations to have them tested for CWD within 48 hours of the harvest. In addition, hunters can transport carcasses out of the zones only after all brain and spinal cord tissue have been removed. TPWD will provide a receipt for the sample.

Because the spread of CWD is evolving, regulations can change quickly. Therefore, anyone involved in hunting activity should consult the most recent Outdoor Annual for the latest regulations. To reduce the chances of spreading the disease, TPWD regulations also restrict the movement of live deer from CWD zones.

Impact on Rural Landowners

CWD poses a significant threat to the future of hunting in Texas. Deer population declines of 45 and 50 percent have been documented in Colorado and Wyoming. A broad infection of Texas deer populations resulting in similar population impact would inflict severe economic damage to rural communities and could negatively impact land markets. Specifically, those landowners seeking to establish a thriving herd of deer could avoid buying in areas with confirmed CWD infections.

As they do with anthrax-susceptible properties, land brokers may find it advisable to inquire about the status of CWD infections on properties that they present for sale. Prospective buyers should also investigate the status of the wildlife on prospective properties. In addition, existing landowners should monitor developments as TPWD crafts management strategies to identify and contain this deadly disease.

Dr. Gilliland (c-gilliland@tamu.edu) is a research economist with the Texas Real Estate Research Center at Texas A&M University.

<https://www.recenter.tamu.edu/articles/tierra-grande/oh-deer-2314>

<https://landassociation.org/chronic-wasting-disease-in-texas-latest-updates/>

THURSDAY, SEPTEMBER 01, 2022

Texas CWD Count As Of Late August 2022 Totals 376 TPWC Implements Two Year Surveillance Zor Four Counties

<https://chronic-wasting-disease.blogspot.com/2022/09/texas-cwd-count-as-of-late-august-2022.html>

Terry S. Singeltary Sr.

POSTED BY TERRY S. SINGELTARY SR. AT 12:12 PM



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