

**U.S. Department of Agriculture  
Animal and Plant Health Inspection Service (APHIS)  
Veterinary Services  
Annual Update from the Cervid Health Team  
Fiscal Year (FY) 2018**

**Voluntary Chronic Wasting Disease (CWD) Herd Certification Program**

The APHIS National CWD Herd Certification Program (HCP) was implemented in 2014. It is a voluntary Federal-State-industry cooperative program administered by APHIS and implemented by participating States. The program provides uniform national herd certification standards that minimize the risk of spreading CWD in farmed cervid populations. Participating States and herd owners must comply with requirements for animal identification, fencing, recordkeeping, inspections/inventories, as well as animal mortality testing and response to any CWD-exposed, suspect, and positive herds. APHIS monitors the Approved State HCPs to ensure consistency with Federal standards through annual reporting by the States.

With each year of successful surveillance, herds participating in the HCP will advance in status until reaching five years with no evidence of CWD, at which time herds are certified as being low risk for CWD. Only captive cervids from enrolled herds certified as low risk for CWD may move interstate. Currently, 28 States participate in the voluntary CWD Herd Certification Program and have Approved HCPs. FY 2018 marks the sixth year that Approved States have submitted their CWD HCP annual reports to APHIS. In FY 2018 there were 2,393 enrolled cervidae herds: 1,846 deer, 400 elk and 147 mixed species herds. Of those, there were 1,875 certified cervidae herds: 1,434 deer, 344 elk and 97 mixed species herds.

**CWD in Farmed and Wild Cervids**

*Summary of CWD detections.* As of September 2018, CWD has been confirmed in wild deer and elk in 23 U.S. States, and in farmed cervids in 17 States. In total, 25 States have identified CWD in wild and/or farmed cervids. CWD has been reported in 100 farmed cervid herds in the United States.

*FY 2018 CWD Detections in Farmed Cervids:* Fifteen newly-identified CWD positive farmed cervid herds were identified in FY 2018 (11 white-tailed deer, 1 elk, 1 reindeer and 2 mixed herds with white-tailed deer and elk). Three herds were double fenced and 10 herds were in counties that had CWD positives confirmed in the wild. Four of the herds were within 10 miles of CWD positives confirmed in the wild.

**Wisconsin:** The National Veterinary Services Laboratories (NVSL) confirmed CWD in a 3-year-old white-tailed buck in a herd in Shawano County on October 2, 2017. The buck was born in a breeding facility in Waupaca County. This hunting preserve of 245 white-tailed deer was not enrolled in the HCP. The hunt preserve and the breeding facility in Waupaca County are under quarantine.

**Wisconsin:** NVSL confirmed CWD in a 3 year old white-tailed buck on October 20,

2017 on a hunt preserve in Waupaca County. The buck was traced back to a HCP certified breeding herd in Iowa County, Wisconsin. Eleven additional CWD positive animals harvested between September 20 and December 7, 2017 were traced out of this hunt preserve, ten to a HCP certified breeding herd in Iowa County, Wisconsin and one to a HCP certified breeding herd in Lancaster County, Pennsylvania. The hunt preserve of 73 animals was depopulated in March, 2018 and no additional positives were found.

**Wisconsin:** Trace back (from Waupaca hunt preserve) HCP certified breeding herd in Iowa County consisted of 106 white-tailed deer. This herd was depopulated with federal and state indemnity in May, 2018 and 21 additional positives were found.

**Minnesota:** NVSL confirmed CWD in a three year old white-tailed buck on November 22, 2017 in Winona County. A second white-tailed buck was confirmed CWD positive on December 8, 2017. The HCP non certified breeding herd of seven white-tailed deer was depopulated in February, 2018 with federal indemnity and all seven were CWD positive.

**Michigan:** NVSL confirmed CWD in a one and a half year old white-tailed doe on December 11, 2017 in Mecosta County. The HCP certified breeding herd consisted of 523 white-tailed deer and is under quarantine. The index animal's dam and an additional 113 high risk animals have been removed with federal funding and no additional positives have been found.

**Ohio:** NVSL confirmed CWD in a three year old white-tailed buck in Holmes County on January 10, 2018. The buck was harvested on a hunt preserve in Guernsey County and traced back to a HCP certified breeding herd of 93 white-tailed deer. The herd was depopulated with federal indemnity in February, 2018 and two additional CWD positives were found.

**Pennsylvania:** NVSL confirmed CWD in a two year old white-tailed doe in Bedford County on January 31, 2018. The doe was harvested on the hunt preserve that consisted of 82 white-tailed deer and 6 elk. The hunt preserve is not enrolled in the HCP and is under quarantine.

**Pennsylvania:** NVSL confirmed CWD in a two and a half year old white-tailed buck on February 6, 2018 in Lancaster County. The HCP certified breeding herd consisted of 37 white-tailed deer and was depopulated in May, 2018 with federal indemnity. There were no additional positives found. This herd was also a trace back herd from Waupaca County, Wisconsin.

**Wisconsin:** NVSL confirmed CWD in a three year old white-tailed buck on March 7, 2018 in Washington County. The HCP certified breeding herd consists of 13 elk and 58 white-tailed deer. A CWD-exposed hunt preserve, owned by the same producer, in Bayfield County consisting of 24 white-tailed deer was depopulated in April, 2018 with federal indemnity. No additional positives were found in the hunt preserve and the breeding herd is under quarantine.

**Illinois:** NVSL confirmed CWD in a five year old female reindeer on May 9, 2018 in Boone County. The State HCP certified breeding herd consisted of 24 reindeer. Eight

reindeer have been depopulated with federal funding for research purposes. No additional positives have been found and the herd is under quarantine. This is the first confirmed case of CWD in a reindeer in North America.

**Pennsylvania:** NVSL confirmed CWD in a one year old and a six year old white-tailed doe on May 24, 2018 in Blair County. The herd is HMP enrolled and consists of one white-tailed buck and is under quarantine.

**Wisconsin:** NVSL confirmed CWD in a five year old white-tailed doe on May 31, 2018 in Dane County. The HCP certified breeding herd of six white-tailed deer was depopulated in June, 2018 without federal indemnity. No additional positives were found.

**Wisconsin:** NVSL confirmed CWD in a two and a half year old female elk on May 31, 2018 in Richland County. The herd of eleven elk was not enrolled in the CWD HCP and was depopulated in August without federal indemnity. No additional positives were found.

**Wisconsin:** NVSL confirmed CWD in a two year old white-tailed doe on June 14, 2018 in Marinette County. The breeding herd consists of 320 white-tailed deer and is not enrolled in the CWD HCP. The producer also owns a hunt preserve in Forest County consisting of 79 white-tailed deer. Both facilities are under quarantine.

**Wisconsin:** NVSL confirmed CWD in a five year old female elk on June 22, 2018 in Sauk County. The breeding herd of fifteen elk is not enrolled in the CWD HCP and is under quarantine.

**Pennsylvania:** NVSL confirmed CWD in a 4 1/2-year-old white-tail buck on a hunting preserve in Franklin County in January 2017 (positive on lymph node only). The hunting preserve consisted of 50 white-tailed deer and is required to test 50% or more deaths as part of the PA Herd Management Program (HMP). The positive buck had arrived at the hunting preserve August 2016 and was shot November 2016. No live cervids leave this facility. No other positive animals, wild or farmed, have been identified in Franklin County. This animal was born on a HCP-certified breeding facility in Fulton County which had an associated HMP hunting premises that later tested positive (see below).

In February 2017, NVSL confirmed CWD in a 3 1/2-year-old white-tail doe from a premises in Bedford County. The positive doe was a natural addition. This HCP-certified breeding herd consisted of 157 whitetail deer and was depopulated on July 18, 2017 with Federal indemnity. Twenty-seven additional positive animals were found (19 GG, 7 GS, 1 unknown). Samples from 150 adult deer were submitted for codon 96 genotyping: 96 GG, 49 GS, 5 SS. One trace-forward deer moved out-of-state and was reported as “not detected”. Research samples were obtained and archived. The closest known wild CWD positive cervids are 2.49 miles away from this herd.

In May 2017, NVSL confirmed CWD in a 5-year-old white-tail doe on a hunting preserve in Fulton County. This combined HCP-certified breeding facility and HMP hunting preserve was previously quarantined as a CWD exposed trace back premises from an earlier 2017 positive in Franklin County. The facilities consist of 234 white-tailed deer. All additions to the HCP breeding facility have been natural since at least 2011. Ten CWD positive wild deer have been identified in Fulton County since 2015. The closest known wild CWD positive deer was found 700 meters away from this farm in March 2017. The HCP breeding facility and the HMP hunting preserve are quarantined.

**Texas:** A CWD positive rectal biopsy was confirmed on May 9, 2017 in a 4-year-old white-tail buck in Medina County. The biopsy had been taken to comply with Texas Park and Wildlife regulations. The buck had been transferred from another breeding facility in November 2014. The herd of 91 adult and 71 fawn white-tail deer is located adjacent to a previously identified CWD-positive premises. This animal was euthanized and post-mortem samples were confirmed positive (both lymph node and obex) by NVSL on July 6, 2017. The white-tail deer herd is not in the HCP and a herd plan for depopulation with Federal indemnity is planned.

## **Revisions to the CWD Program Standards**

The CWD Program Standards provide guidance on how to meet CWD Herd Certification Program and interstate movement requirements in 9 CFR parts 55 and 81. In July 2016, VS convened a working group of State and Federal animal health and wildlife officials and representatives from the farmed cervidae industry to review the CWD Program Standards. VS issued a summary of the working group’s discussions and VS’ recommended changes to the CWD Program Standards at the 2016 USAHA meeting for public comment. We received 35 written comments. VS considered these comments as we revised the Program Standards. The revised CWD Program Standards are currently under review and clearance within the USDA.

Once approved, APHIS will publish the revised CWD Program Standards through the Federal Register for public comment prior to being finalized.

### **Guidance Document for Interstate Movement of Wild Caught Cervids**

APHIS published VSG 8000.1 Requirements for Interstate Transport of Wild Caught Cervids in September 2016. This guidance document establishes a recommended minimum standard for testing and a uniform process of disease risk assessment to help prevent the spread of cervid diseases such as chronic wasting disease (CWD), bovine tuberculosis (TB), and brucellosis when wild cervids are captured for interstate movement and release.

APHIS issued VSG 8000.2 in September 2017, in response to several comments we received and a 2016 USAHA resolution. The revision added a requirement that, “Cumulative sampling over the most recent three-year period should be sufficient to detect at least a 1 percent prevalence of CWD in the source population with 95 percent confidence.” However, APHIS did not change the guidance document to require ante-mortem testing for CWD. APHIS does not intend to require the rectal biopsy for routine herd surveillance or as a pre-movement test in farmed cervids. In light of this, we retained the *option* for State Animal Health Officials to require ante-mortem testing for CWD recognizing that this may help to inform decisions about the risk of CWD in the source population for the wild-caught cervids. APHIS will not pursue changes to the Code of Federal Regulations (CFR) Part 81.3, at this time.

### **Live Animal Testing For CWD**

VS continues to support research to develop and validate live animal tests for CWD. A pilot project is in process in Ohio to evaluate the use of whole-herd rectal biopsy as an ante-mortem test in CWD-exposed white-tailed deer herds. The first whole-herd test was performed on 231 exposed white-tailed deer in 6 herds from February through March 2016. The second whole-herd testing was completed in September 2016. Genotyping was used to determine the timing of the second whole-herd test. All biopsy results have been “not detected.” Herd agreements are in place to take samples from any available pilot animals for follow-up post-mortem testing.

VS is also evaluating rectal biopsy data from elk to determine the test sensitivity if used in whole herd testing. Unfortunately, the data is not as robust as what was available for white-tailed deer. Specifically, more post-mortem results are needed to compare with the ante-mortem results and genotypes. VS will continue to work with researchers and statisticians to better understand the potential use of this test.

### **Cervid Tuberculosis**

In FY 2017, 12,588 cervids were tested serologically for bovine TB using the DPP® Vet TB Assay. A total of 55,205 cervids have been tested since the introduction of the serological tests in 2013. In FY 2017, primary DPP serological testing identified 20 TB suspects; 8 of these animals had negative tests when retested at least 30 days after the primary test, 3 animals have yet to be retested, and 5 euthanized or died without a 2<sup>nd</sup> DPP and were negative on culture. Four were identified as TB reactors when they tested positive to the secondary DPP test. All four reactors were necropsied and culture results are pending.

The Chembio DPP® Vet TB Assay is the only serological test approved by APHIS for TB testing in cervids. Since October 2016, the NVSL has experienced delays in receiving test kits from the manufacturer. NVSL exhausted its supply of test kits, resulting in a backlog of approximately 5500 samples. After receiving additional test kits, NVSL tested all pending samples by the end of August 2017. NVSL has approximately 14,000 tests on hand to begin fall testing.

The current manufacturer is the sole source for this test. APHIS continues to work closely with the manufacturer to submit orders for DPP test kits as early in the annual production cycle as possible. We also maintain frequent contact with the manufacturer about NVSL's inventory and the status of pending orders for test kits. Despite these actions, NVSL has experienced inventory shortages several times. Producers have the option use single cervical skin tests as an official TB test.