

Douglas and Pine Counties CWD Infected Farmed Cervid Herd Epidemiological Report Summary

Epidemiological (or epi) reports on chronic wasting disease (CWD) positive farmed cervid herds evaluate the findings of the epidemiological investigation conducted when CWD is found in a herd. Information is gathered from the previous five years on animal movement and testing, and herd management of affected herds; the timeline of five years is set in consideration of CWD's incubation period. Information collection is focused on identifying risk factors that could have led to CWD exposure, and if the herd is depopulated, characterizing the spread of infection within the herd based on the CWD status of all herd members.

Herds

The Douglas County white tailed deer herd was identified as infected with CWD in December 2019 with confirmation of the disease in an eight-year-old doe killed by the buck in the herd. The producer harvested the buck in late November prior to the confirmation of CWD in the doe; the buck was tested for CWD and no CWD was detected in the animal. The owner acquired these two deer in February 2019 from a Pine County herd to start this herd. The doe was pregnant when it was moved and had twin fawns, which died shortly after fawning. The doe was thin after fawning and did not regain weight. This Douglas County herd owner received an additional two fawns, one female and one male, from the Pine County herd in the summer of 2019; the doe fawn died a few weeks after arriving and the buck fawn was moved to a herd in Clearwater County in November 2019. The buck fawn died on the Clearwater County farm and was tested for CWD; no CWD was detected in this animal.

In the first week of December 2019, the producer of the Pine County white tailed deer herd, the source of the Douglas County herd's animals, reported to their inspector that a three-year-old doe in the herd was sick with respiratory signs. The doe died the next day and samples were collected from the animal for CWD testing. Based on the link of animal movement from the Pine County to Douglas County herd, the remaining animals in the Pine County herd were quarantined later in December when CWD infection was confirmed in the Douglas County herd. The doe that died in the Pine County herd was confirmed as infected with CWD in January 2020 and the remaining animals in the herd were harvested later that month. Four more animals in the herd were found infected with CWD, two does and two fawns.

The Pine County producer assembled this herd in 2017 from four Minnesota herds. He received animals from three herds where the producers no longer wanted to farm cervids; the other herd is still active. The five CWD positive adult does in this investigation moved in the spring of 2017 from the three herds that were closed.

The Pine County herd producer sold animals to two other producers in Wadena and Chisago Counties. Five animals were moved in October 2017, a fawn to a herd in Chisago County and a doe, buck, and fawn to a site in Wadena County. Another doe was moved to the Wadena County herd in August 2018 but died shortly after arriving. These two herds were quarantined after CWD was confirmed in the Pine County herd as the animals moved into these herds were exposed to CWD while in the Pine County herd. Three of the five CWD Exposed animals were alive, subsequently harvested and tested for CWD; two bucks harvested in March 2020 from Wadena County and one buck harvested in August 2020 from Chisago County all had no CWD detected when tested. The fourth CWD Exposed animal was the doe that died in August 2018 and had already been tested for CWD with no CWD detected. The fifth CWD Exposed animal

was missing in the Wadena County herd. Ear tags from the animal near skeletal remains were found within the enclosure, but the skeletal remains could not be confirmed as the missing animal nor tested for CWD. The missing animal's two fawns born in 2018 were harvested in March 2020 and no CWD was detected in these animals.

Five-year herd management history

The Douglas County producer was a registered farmed cervid producer for less than a year. The first adult animal in his herd that died was tested and found positive for CWD. The premises was inspected in the fall of 2018 prior to stocking the site with farmed cervids and the single fencing enclosure met requirements for housing cervids. The herd producer passed a full inspection in March 2019 after he moved the cervids onto his farm. He fed hay purchased locally and a purchased grain/protein supplement which were stored inside a building within the enclosure. The animals were also fed in the building. Wild cervids could not get access to this stored feed or to areas where it was fed in the enclosure. This enclosure is on land primarily farmed with row crops and wild deer were not reported near the enclosure.

The Pine County producer was a registered farmed cervid producer for three and a half years when CWD was detected in this herd. The producer had tested two adult animals in the herd for CWD prior to identification of CWD in the doe that died in early December 2019. The site and herd were inspected annually starting in July 2017 after the producer received three fawns to start the herd; all annual inspections were passed. Animals were housed in a single fence enclosure and fed grain purchased from a dairy, stored in metal bins with lids and fed so wild deer would not have access to feed. The deer were not fed hay. The enclosure was adjacent to a forested area and evidence of wild deer tracks and droppings could be observed around the pen.

Ancillary Producer Activities

The Pine County producer and members of his family were hunters and traveled to various locations in the United States to hunt a variety of animals including cervids in areas with CWD infection in wild cervids. The producer did not dispose of animal parts from these hunts on their farm nor did they wear clothing from the hunts when working with the farmed cervids. None of the wild cervids they harvested were tested for CWD. The owner or family members do not engage in any taxidermy practices.

Conclusions

Based on the investigation findings, it is likely the Douglas County CWD infected doe was exposed to CWD before she was moved from the Pine County herd in February 2019. This was the only animal moved out of the Pine County herd that was found infected with CWD as animals moved out of the herd in October 2017 and August 2018 had no CWD detected when they were tested between August 2018 and August 2020. This suggests CWD was not in the Pine County herd before the animals moved to the Wadena and Chisago Counties in the fall of 2017 as three of the four animals moved in this time frame were tested for CWD over two years and five months after leaving the Pine County herd with no CWD detected. It also suggests that the farms that contributed animals to the assembly of the Pine County herd could not have been the source of CWD in this outbreak as the infection would have moved with the animals to the Pine County herd in the spring of 2017 exposing all the animals in the herd. So, the exposure likely occurred in the Pine County herd after late 2017 and was not established long enough for the doe tested in August 2018 to test positive; it tested not detected for CWD.

The source of CWD infection for this outbreak remains unknown. There is no information to support any of the source herds for the five CWD positive adult animals in this outbreak were the source of infection. There is no known infection of CWD in wild cervids surrounding this herd; the closest known infection in the wild was an infected white-tailed deer found in Washburn County, Wisconsin in 2011. There are no direct links to the producer's hunting activities, although the producer did report hunting in Wyoming and South Dakota CWD endemic areas during the time frame of August 2018 to February 2019.