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Chronic Wasting Disease Risks to Cervid Farms

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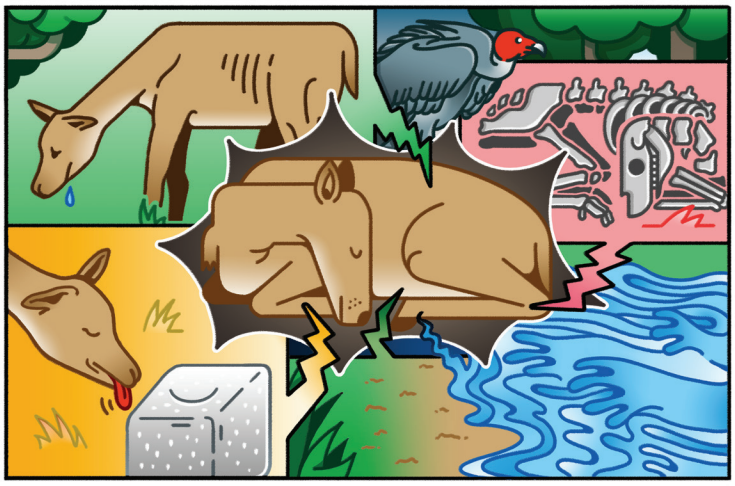
What do we know about CWD?

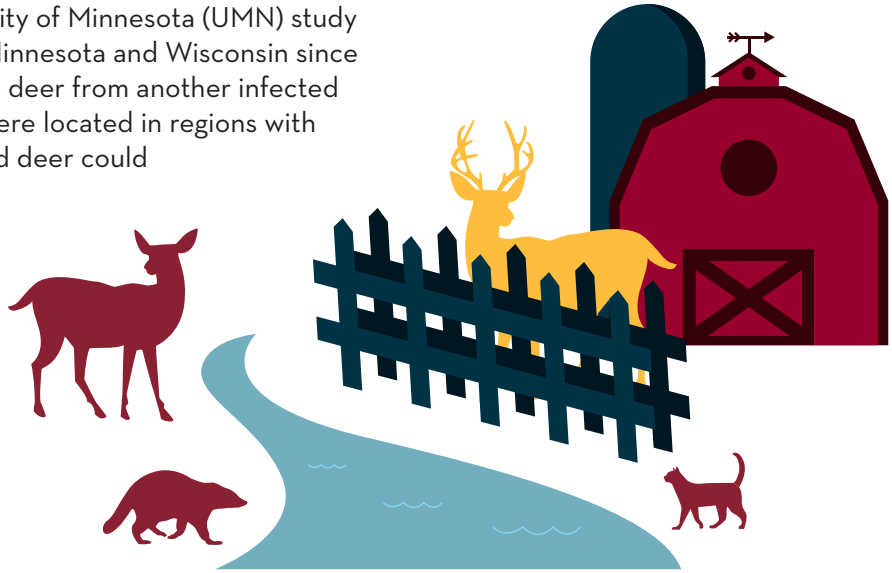
Chronic Wasting Disease (CWD) is an always fatal neurodegenerative disease that can spread in wild and farmed cervids, including white-tailed deer, elk, and other species. The disease is spread by infected animals shedding misfolded proteins called prions into the environment via saliva, feces, or other means. The prions, which cause CWD, can persist for years in the environment, and can be spread via soil and waterways. It can take up to two years or more for a deer to show signs of CWD. A deer with signs of the disease might become emaciated, display neurological irregularities, and act erratically.



How are farmed cervids becoming infected with CWD?

One source of infection is through the purchase of deer from farms later found to be CWD positive. All deer that die are required to be tested for CWD, and moving deer from known infected farms is not allowed. But because most infected deer do not show signs of disease, and because there is currently no federally validated CWD test for routine surveillance of live animals, it's possible a farmer may not know if they have an infected deer until after the animal dies. This points to the critical need to develop and evaluate new tests for use in live animals. That way, the routine testing cervid farmers conduct could flag positive cases before a sale, preventing the spread of CWD from one area of the state to another.

Despite this potential risk, a recent University of Minnesota (UMN) study showed most CWD infections in farms in Minnesota and Wisconsin since 2015 did not result from the sale of positive deer from another infected farm. Instead, most of the infected farms were located in regions with CWD-positive wild deer, indicating that wild deer could be the source of the infections through indirect contacts with farmed cervids.



Further, preliminary results from a follow-up UMN study comparing potential exposures to CWD-positive and CWD-negative farms in Minnesota, Wisconsin, and Pennsylvania show that **key farm and environmental factors associated with CWD on cervid farms** include:

1) **Cervids introduced from herds later detected as CWD-positive** (about a third of infected study farms experienced this exposure risk).

2) **Indirect exposures through the environment from infected wild deer.** These factors provide an indication that scavengers bring CWD from infected wild deer sources through the fence to infect farmed cervids. These factors included observing scavengers in and around cervid pens, access of cats to cervid pens or feed storage areas, and location of water sources for farmed cervids at the perimeter fenceline.

What does this mean?

- Farmed cervids in Minnesota, Wisconsin, and Pennsylvania have been infected from both farmed deer sources and wild deer sources.
- **Cervid farms located in areas with CWD-positive wild deer are at risk of infection from these wild deer through environmental exposures.** Additional research and education are needed to help cervid producers reduce their risks of becoming infected through indirect exposures from infected wild deer.