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DON'T TAKE CWD FOR GRANTED, PENN STATE EXPERTS ADVISE

UNIVERSITY PARK, Pa. -- Scientists in Penn State's College of Agricultural Sciences expected chronic wasting disease (CWD) to show up in deer in the Northeast eventually, but they didn't anticipate that it would appear on Pennsylvania's northern doorstep this spring after being discovered in a deer that was fed to 350 people.

But that's what happened in Verona, N.Y., where a donated deer -- processed into venison that ended up in chili, meatballs and sausage served to attendees at a volunteer fire department game banquet in March -- later tested positive for CWD. Subsequent testing revealed that four more domesticated deer in two captive herds kept just east of Syracuse were infected by the disease.

Even though there is no evidence that humans are affected by CWD -- or even that livestock other than deer or elk are vulnerable to the disease -- the finding shook wildlife and food-safety officials in both Pennsylvania and New York. It marks the first time CWD has been found east of Illinois, and the herds containing the infected animals were less than 100 miles north of the Pennsylvania border.

"CWD has not been linked to human illness," says Catherine Cutter, assistant professor of food science, who specializes in the processing of meat from deer and other wild game. "But the Centers for Disease Control and Prevention recommends against eating meat from deer infected with CWD. We advise hunters to use common sense and take some basic precautions in handling harvested deer."

David Wolfgang, senior research associate in veterinary science, points out that scientists don't yet know exactly how the disease is transmitted. "The agents that cause CWD are neither bacteria nor viruses, but are hypothesized to be prions, infectious proteins," he says. "The disease causes a deer's brain and nervous system to slowly accumulate the abnormal prions and eventually to begin to deteriorate. Although CWD is a fatal disease among deer and elk, research suggests that humans, cattle and other domestic livestock are resistant to natural transmission. While the possibility of human infection remains a concern, it is important to note there has never been a case of humans contracting CWD."

Wolfgang noted that the disease, which appeared in Colorado in the late 1960s and has spread east and south since then into 11 states, has not jumped between species. At the National Prion Disease Pathology Surveillance Center at Case Western Reserve University, experiments in transgenic mice are under way to determine the likelihood of the disease jumping from deer to humans.

The ramifications of CWD coming to the Northeast -- and perhaps ultimately Pennsylvania -- are very serious, according to Gary San Julian, professor of wildlife resources. "When chronic wasting disease was discovered in Wisconsin two years ago, the sale of hunting licenses dropped as hunters reacted to what they perceived as a threat," says San Julian. "Sales rebounded after that, but it shows the economic impact this disease can have on a state such as Pennsylvania, with a strong hunting heritage, if it is discovered here."

New York officials are taking the outbreak seriously -- they killed all 20 deer on the two farms where the disease was discovered, quarantined several other nearby deer farms, and they plan to kill more than 400 deer to collect samples to see whether the disease has spread into the wild. But the circumstances surrounding the New York CWD cases are especially worrisome, San Julian explained, boosting chances CWD might break containment.

"One of the farms where the infected deer was discovered does more than raise deer -- it also takes in wild deer for rehabilitation and releases them back into the wild," San Julian says. "It is a concern,

depending how injured or orphaned animals were handled. The prospect of CWD being in the wild a short distance north of Pennsylvania worries hunters and conservation agency officials here alike. Containing this disease could cost millions of dollars at a time when agency funds are tight."

States where CWD has been discovered have issued recommendations for hunters to follow when handling deer carcasses. Although CWD is not in Pennsylvania, Cutter suggests that Keystone State hunters consider taking the following precautions:

- Avoid butchering, processing or consuming venison from an animal that appeared sick in any way. "Steer clear of deer that appear emaciated, wobbly or display an unnatural lack of fear," she says.
- Wear rubber or latex gloves when handling venison and processing deer. "That's a wise practice even if you aren't worried about CWD," she says.
- Don't cut into the brain, spinal cord, spinal column or lymph nodes when butchering.
- If possible, hang deer by hind legs with head down when butchering. "Most cattle and livestock processed in this country are hung with the head down," Cutter says. "That prevents brain and spinal fluids from contacting the meat."
- Use a knife and debone all venison. "Cutting bone could expose meat to nerve tissue," Cutter says.
- Once you are finished processing, clean all knives and utensils thoroughly with warm, soapy water, and then soak them for a few hours in a 50 percent solution of bleach and water. "Strong chlorine solutions have been shown to greatly decrease the infectivity of prions, the infectious agents of CWD found in the nerve tissue of infected animals," she says.
- Properly dispose of brain, spinal cord, spleen, tonsils and other organs. "Appropriate disposal depends on what state you are in," Cutter explains. "In Pennsylvania, you should seal the remains in plastic trash bags and be certain they are disposed of in a lined landfill that is not exposed to runoff and doesn't leach into groundwater. That describes most municipal landfills."

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