

11. What has been done to eliminate CWD?

While animal diseases are fairly prevalent in wild populations, the farmed elk and deer industry has taken a leadership role in eliminating these diseases. To date, tuberculosis and brucellosis have been eliminated from the domestic cervidae industry. Out of compassion for their elk and deer and in response to consumers' health concerns, the North American Elk Breeders Association (NAEBA) has taken a leading role in developing a comprehensive and aggressive CWD control and eradication program.

Based on NAEBA's recommendations to the United States Animal Health Association, many states in the U.S. and provinces in Canada have instituted mandatory and voluntary testing and monitoring programs. With input from the elk farming industry, both the United States Department of Agriculture (USDA) and the Canadian Food Inspection Agency (CFIA) have developed comprehensive programs for the control and eventual eradication of chronic wasting disease that include surveillance, monitoring, and indemnification.

The first step in eliminating any disease, no matter how rare, is to contain it. Since 1997, United States feed companies have been prohibited from feeding ruminant-derived meat and bone meal back to ruminants, including deer and elk. This stands in stark contrast to the practices in Europe and elsewhere where infected animal protein was continually fed to cattle, which some scientists claim as the cause of BSE in cattle. It is widely thought that this simple action in itself is significantly responsible for the extremely low incidence and slow spread of CWD in North America and will make the rapid elimination of this disease probable.

States located in the geographic areas that have had reported incidences of CWD in elk and deer have instituted mandatory CWD "surveillance" of herds. This mandate requires each and every brain of a farmed elk or deer that perishes for any reason to be submitted to the USDA's National Veterinary Services Laboratory in Ames, Iowa for examination. In this manner, any animal that may have died from CWD can be positively identified. Since the three years of surveillance exceed the incubation and symptom display period for CWD, these states are confident that they can state they are CWD free. This same effective policy has been used to eliminate TB and other livestock diseases. Further, it is prohibited to move ANY animal off of a farm where any CWD case has been diagnosed. Herds identified with CWD are being depopulated.

In addition, the Elk Research Council and others in the elk industry are funding research to develop a live-animal test for CWD and to increase knowledge of the disease. The study will cost \$250,000 over a four-year period.

Unfortunately, efforts to contain, control and eradicate CWD are compromised by the lack of a coordinated CWD containment program by state wildlife divisions. While great efforts have been made to contain brucellosis in cattle in Montana and Wyoming, brucellosis in free-ranging bison have been a threat to these states' cattle industry. Similarly, uncontrolled CWD-infected wild elk and deer could undermine the efforts of elk and deer farmers to eradicate the disease.

12. Is CWD transmissible to humans?

According to public health officials and wildlife experts, there is no scientific evidence indicating that CWD can be transmitted to humans. In fact, research conducted at the Rocky Mountain Laboratories in Montana, a National Institutes for Health center, has determined that a molecular barrier significantly limits the susceptibility of humans, cattle and sheep.

Although scrapie in sheep has been studied and consumed by humans for more than 200 years, it has never crossed the species barrier to humans.

In addition, there is no real-life evidence that CWD can be transmitted from deer and elk to cattle.

According to John Pape, an epidemiologist with the Colorado Department of Health, "There is no indication that chronic wasting disease is a threat to human health."

13. What unique benefits do deer and elk products offer?

Elk are raised as livestock for medicinal use, meat, breeding stock and trophy bulls. Velvet antler has been used for more than 2,000 years in Asia and Europe and is gaining popularity in the United States. Velvet antler has been shown to improve joint health, increase muscular strength, accelerate muscle recovery, support the immune system and improve energy and stamina. In Asia, velvet antler has been traditionally used to increase libido. Olympic athletes, bodybuilders and active people of all ages use velvet antler. In addition, elk meat is a high-protein, low-fat food source. Lastly, elk and deer ranches have provided a viable option for the family farmer and rancher, who have suffered from reduced incomes from grain crops, cattle, hogs and chickens.

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Answers to

Frequently

Asked

Questions



regarding

Chronic Wasting Disease

Recently, there has been an increase in press reports about the BSE problem in Europe. While the Europeans struggle with this problem, it is reassuring to know that the United States and Canada have taken a leading role in ensuring the health and well being of consumers and animals.

The European BSE issue has brought increased attention to the rare class of diseases known as transmissible spongiform encephalopathies (TSEs). One of the rarest forms of TSE is a disease that affects the deer and elk family known as chronic wasting disease (CWD). The alarm regarding BSE in Europe has raised concerns regarding the impact of CWD on humans. This FAQ pamphlet, prepared by the North American Elk Breeders Association (NAEBA), is intended to offer information on some of the most commonly asked questions regarding CWD and to help allay the concerns of consumers.

1. What is CWD?

Chronic wasting disease (CWD), a part of a family of diseases referred to as transmissible spongiform encephalopathies (TSEs), is a disease of the brain and central nervous system of cervids such as mule deer, white-tailed deer and elk. A World Health Organization report indicates that there is some evidence of genetic resistance to CWD among elk/wapiti, but not among the other deer species. Other forms of TSE include scrapie, which is widely found in sheep, bovine spongiform encephalopathy (BSE), which affects cattle, and Creutzfeldt-Jakob disease in humans (CJD). Other animals that contract TSEs include cats, mink and squirrels.

Scientists have studied scrapie in sheep for more than 200 years. Despite the consumption of scrapie-infected sheep for hundreds of years, no case of scrapie or variant CJD has ever occurred, or has even been suggested to have occurred in humans.

2. What are CWD's symptoms?

Animals may show a number of different signs as the disease slowly damages their brain. Affected deer and elk become listless, lack coordination, lose significant weight, suffer from depression, exhibit unusual behavior, become paralyzed, show an increased thirst and urination and eventually die.

3. What are the causes of CWD?

A poorly understood agent called proteinaceous infection particles or prion causes CWD. Prions are destructive brain proteins that can damage healthy brain proteins. It is not yet known if prions are capable of damage on their own or if they act in concert with or are the result of another infectious agent. Diseases caused by prions are called spongiform encephalopathies because they cause cavities and holes in the brain, causing the brain to visually resemble a sponge.

4. How is it transmitted?

How CWD is transmitted from one animal to another is not yet completely understood. In the cases of CWD in wild deer in Colorado and Wyoming, both maternal and lateral transmission appeared likely. Transmission of the disease appeared to occur between deer that were in close proximity to each other. A close study of the disease indicates that lateral transmission is the major means of transmission, because most affected animals in Colorado and Wyoming were not related to each other. It is thought that CWD is transmitted through the saliva, feces or urine. Once ingested, the disease has an incubation period of 16-30 months before the onset of clinically observed symptoms.

The BSE outbreak in Europe in cattle is believed to have been caused by the unwise and continual feeding of cattle with scrapie-infected animal products. This feeding of slaughterhouse remains of sheep and cattle, some of which were infected with BSE and scrapies, to the next generation of cattle is thought to have caused the vertical transmission of the disease.

In contrast, farmed deer and elk are fed a grain-based diet and are prohibited from being fed animal products. NAEBA and AEPB

(American Elk Products Board) industry regulations prohibit the feeding of "mammalian tissue" back to the farmed elk and deer. This responsible position is a function of the leadership role that the farmed elk and deer industry has taken with regard to the eradication of CWD in deer and elk.

5. How is it diagnosed?

The current method of testing for CWD is through a brain examination of a deceased animal. World scientists are working diligently on developing a live animal test for the entire class of TSE diseases, and an accurate test is generally thought to be close at hand.

6. What is the origin of CWD?

Like the entire class of TSE diseases, CWD in all likelihood has existed in wild animals for hundreds of years. Most of the CWD in farmed elk appears to trace back to the Colorado Division of Wildlife research pens where CWD first appeared in 1967. Mule deer from this facility were given to the Denver Zoo. The Denver Zoo gave some mule deer to the Toronto Zoo and also sold some animals, which eventually arrived at an elk ranch in South Dakota. It is widely believed that most of the CWD herds in the United States and Canada can be traced to this South Dakota herd.

State wildlife agencies understand their role and responsibility to control CWD in the wild deer and elk populations. The Colorado Division of Wildlife plans to reduce CWD deer by 50% includes issuing large numbers of hunting licenses to landowners in the area.

State wildlife agencies have reiterated common sense precautions against handling or consuming meat from elk or deer that appear to be diseased. Offal, brain, and spinal cord tissue, as well as all meat from affected animals, should not be used as food or as a protein source in animal food. Colorado DOW has dropped its required testing of hunted deer and elk for CWD.

7. How many elk have been affected by CWD in North America?

Chronic wasting disease primarily affects wild deer and elk, appears to be rare and spreads very slowly. The USDA reports that, of the more than 5,000 wild deer and elk that have been tested since 1990, only 110 clinically affected animals had been identified with CWD. Generally, less than 1% of the wild elk and 5% of wild mule deer in the affected areas are believed to be CWD-positive.

The incidences of CWD in farm elk and deer are even more rare. Those that have been identified are being eradicated. A total of 16 herds in the United States had at least one animal diagnosed with CWD: five in Colorado, one in Montana, two in Nebraska, one in Oklahoma and seven in South Dakota. All of the herds in Canada that have been identified as having at least one infected elk have been, or are in the process of being, depopulated.

8. Can CWD affect antlers or meat products?

CWD disease affects the brain and central nervous system of deer and elk. There is no scientific evidence that antler, muscle tissue or other parts of the animal contain CWD prions. Furthermore, there are no federal or state restrictions against the consumption of meat or antler products from wild or domestic elk or deer. Some states have recommended against consuming deer or elk that appear to be diseased as well as consuming the brain or spinal cord of any cervid. Other states have recommended care when dressing carcasses and minimal handling of the spine or brain, especially in animals from areas where CWD has occurred.

However, in response to consumers' concerns, elk ranchers have voluntarily banned the sale of antler or meat products from infected herds.

9. Have products from CWD-infected elk and deer been sold from the U.S. or Canada?

Although no evidence exists that CWD is a threat to humans and no evidence exists that CWD can even infect antlers, elk and deer ranchers have acted compassionately, responsibly and proactively with respect to consumers' concerns and animal health.

The Canadian Cervid Council has reported that **no** velvet antler products from herds known to have at least one CWD case have been sold in Canada or elsewhere. Elk breeders in the U.S. have agreed that no antler from CWD-infected herds is to be sold. In addition, elk ranchers from infected herds in South Dakota, out of respect to consumers' concerns, did not sell antler from CWD present herds and instead, voluntarily eradicated their herds.

A ban on selling meat or velvet products from infected herds is part of the CWD eradication and control program developed by the United States Department of Agriculture (USDA) and the Canadian Food Inspection Agency (CFIA).

10. Can an animal with CWD be treated?

There is no known treatment for an animal with CWD.

