

BOVINE SPONGIFORM ENCEPHALOPATHY

What is Bovine Spongiform Encephalopathy?

Bovine Spongiform Encephalopathy, or BSE, is a progressive, fatal disease of the nervous system of cattle. It is known as a transmissible spongiform encephalopathy (TSE). Other TSEs include scrapie in sheep, chronic wasting disease in deer and elk, and Creutzfeldt-Jakob disease (CJD) in humans.

What causes BSE?

Although the exact cause of BSE is unknown, it is associated with the accumulation in the brain of an abnormal form of protein called a prion. There is no treatment or vaccine currently available for the disease.

Is this the first case of BSE in Alberta?

No. The only other case of BSE diagnosed in Alberta was found in 1993 in a beef cow that had been imported from Britain in 1987. The animal carcass and the herd it came from were destroyed and additional measures were taken immediately by the federal government to deal with any risk that cattle might have been affected. BSE has been a reportable disease in Canada since 1990. There have been no other BSE cases in Canada.

When was this case discovered?

In late January 2003, an eight-year-old downer cow was sent for slaughter to a provincially licensed meat facility. An Alberta Agriculture, Food and Rural Development (AAFRD) Meat Inspector condemned the carcass as unsuitable for human consumption. The remains of the cow were sent for rendering. The head of the animal was collected and submitted routinely as part of AAFRD's surveillance program for BSE. Testing was not completed until May 16, 2003.

The preliminary test was confirmed by the Canadian Food Inspection Agency (CFIA) May 18, 2003. The CFIA has air transported the tissue sample for further confirmatory testing by scientists in the United Kingdom. The World Reference Laboratory in Waybridge, U.K, confirmed that the sample is positive for BSE early on May 20th.

No part of the animal entered the human food chain.

Was the length of time between slaughter and test results unusual?

No. Because the animal was declared unfit for human consumption and was not ever going to be part of the human food chain, it was determined to be low-risk. Therefore, it was given a lower priority for testing. If the animal had symptoms for BSE or been destined for human consumption, it would have been tested immediately.

What is happening to the other animals on the farm?

Control and eradication measures are the responsibility of the CFIA. We understand that the farm has been placed under quarantine and the origin of the animal is being traced. Further information on the status of control and eradication can be obtained from the CFIA.

Is Alberta's beef safe?

Yes, Alberta beef and dairy products are safe for consumption. Alberta's food safety system is among the best in the world. Detection of this case is proof of the effectiveness of our surveillance and monitoring systems. As well, Canada does not allow the rendered carcasses of ruminants-such as sheep, goats, cattle, deer and elk-to be fed to other ruminants. This eliminates the major transmission vector of BSE and other TSEs. BSE is not transmitted through contact between ruminants.



Additionally, the major transmitters of BSE-brains and spinal columns-are not incorporated into processed meat products destined for human consumption.

What happens to animals sent for rendering?

Carcasses sent for rendering are subjected to extremes of heat and pressure. The carcasses are then made into either meat or bone meal, often used in fertilizers and other products. As mentioned previously, Canada does not allow the rendered carcasses of ruminants to be fed to other ruminants.

What does this mean for the beef industry? Will this affect Alberta's ability to export beef?

In 2002, the Alberta cattle and beef industry exported approximately \$2.3 billion of cattle and beef products around the world. These exports could be in jeopardy if trade is suspended.

Is BSE present in other countries?

Other countries known to have cases of BSE include: United Kingdom, Germany, France, Portugal, Denmark, Spain and Italy.

For further information, contact Alberta's Chief Provincial Veterinarian - Gerald Ollis, Agriculture, Food and Rural Development by phone 780-427-3448 or Dial 310-0000 for toll-free access outside Edmonton.

RELATED WEBSITES

[Alberta Beef Producers](http://www.albertabeef.org) - <http://www.albertabeef.org>

[Canadian Beef Export Federation](http://www.cbef.com) - <http://www.cbef.com>

[Canadian Cattlemen's Association](http://www.cattle.ca) - <http://www.cattle.ca>

[Canadian Food Inspection Agency](http://www.inspection.gc.ca) - <http://www.inspection.gc.ca>

[Health Canada](http://www.hc-sc.gc.ca) - <http://www.hc-sc.gc.ca>

[World Organization for Animal Health](http://www.oie.int) - <http://www.oie.int>