



NEWS RELEASE

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Bovine Spongiform Encephalopathy (BSE) in the US Beef Supply Part 1

Bovine Spongiform Encephalopathy (BSE) is a degenerative neurological disease caused by an abnormal protein called a prion. It is in the family of diseases—all caused by prions—referred to as transmissible spongiform encephalopathies, or TSEs. TSEs include scrapie in sheep and goats, chronic wasting disease (CWD) in deer and elk, and Creutzfeldt-Jacob disease, or CJD in humans. Research from the United Kingdom supports an association between BSE and variant Creutzfeldt-Jacob Disease (vCJD), in that vCJD likely developed as a result of people consuming products contaminated with central nervous system tissue of BSE-infected cattle. Documented studies report that in naturally infected cattle the BSE agent has only been found in CNS tissue, such as brain, spinal cord and retina tissue

All vCJD victims to date have had a specific genetic make-up that may make them vulnerable to this disease. About 40% of the population has this genetic make-up. Research continues to determine the role genetics may play in this disease.

It's important to note that TSEs are not communicable diseases—they do not spread easily like viruses. There is not scientific evidence that shows BSE can be spread by contact between unrelated adult cattle or from cattle to other species. There is some evidence suggesting maternal transmission may occur at extremely low levels. Cattle can become infected with BSE by eating feed contaminated with the infectious BSE agent. This is why in 1997 the U.S. Food and Drug Administration prohibited the use of most mammalian protein in the manufacture of animal feed intended for cows and other ruminants. There have been a small number of cases of vCJD reported, primarily in the United Kingdom, occurring in people who consumed beef that may have been contaminated. (As of May 2003, there have been a total of approximately 139 cases of CJD worldwide.) There is strong scientific evidence (epidemiological and laboratory) that the agent that causes BSE in cattle is the agent that causes vCJD in people.

The current situation regarding BSE in the United States is as follows: On the morning of December 24, 2003, the BSE World Reference Laboratory in England, confirmed USDA's preliminary diagnosis of BSE in a single non-ambulatory dairy cow that had been slaughtered on December 9 in Washington State. USDA and Canada worked together to confirm the identification of this cow through DNA testing.

The USDA's Animal and Plant Health Inspection Service, (APHIS) and Canadian officials have determined that the index animal was approximately 6-1/2 years old at the time of slaughter. The age of the animal is significant because she would have been born before feed bans were implemented in North America in August 1997. The feed bans prohibit the inclusion of ruminant protein in feed intended for other ruminants to eat. This practice has been identified time and time again as the primary means by which BSE is spread.

The index cow had three calves while in the United States. The first was stillborn. The second, a yearling heifer, is among 129 animals from the index farm being depopulated. The third, a bull calf, was among the group of calves depopulated January 6. The herd the affected animal came from is under State quarantine in Washington State. Any cattle that die on the farm will be tested for BSE.

Source: BSE Info Resource, <http://www.bseinfo.org/>

FDA: Consumer Questions and Answers About BSE, <http://www.fda.gov/>

Bovine Spongiform Encephalopathy (BSE), <http://aphis.usda.gov>