

Bovine Spongiform Encephalopathy; are Georgia Cattlemen producing a safe product?

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Bovine spongiform encephalopathy (BSE) is an infectious disease of cattle that has been identified as a single case in a 6½ year-old dairy cow in Washington state. This is the only case of BSE ever reported in the US. The cow was born in Canada in April 1997 and spent her first few years in Canada. So why is this important to Georgia Cattlemen? Even though the science has validated that the infection is not in meat or milk the press continues to report this case as a food safety issue. Domestic beef demand may not be dramatically affected by the BSE news, but cash cattle prices have been. Cash fed-cattle prices were at \$92 per hundredweight Dec. 22, the day before the BSE news was announced. A couple of weeks later the same cattle are selling for \$74 per hundredweight. That's a 20 percent drop. Yearling steers weighing 750 pounds saw bids of \$98 per hundredweight before the BSE news and down to \$82 per hundredweight, a 16 percent drop. Calves weighing 450 pounds were at \$120 per hundredweight before and dropped to \$110. Choice boxed-beef prices were trading at \$150 on Dec. 22 and fell to \$130, a 13 percent decline. Auction markets have seen very low volumes of cattle — 10 to 25 percent below normal runs for the first week of January. **It has certainly affected our bottom line and may affect the way we sell cows and identify our cattle.**

What is BSE? This brain disease of cattle is caused by a small piece of protein called a prion. The BSE agent (prion) is extremely resistant to the treatments that ordinarily destroy bacteria, spores, viruses, and fungi and can survive in tissue after the death of the animal. BSE is not transmitted from one live cow to another – it is not a contagious disease. It appears to infect cattle when they eat the prion. After eating, the prion finds its way into the brain and causes disease in the cow's brain. From the time cattle eat the prion until they show signs of the disease may be months or years later. The source of the feed contaminated with the BSE prion comes from a BSE infected cow being rendered and the rendered proteins fed to other cattle. The rendering process will not destroy all of the small proteins called prions. Originally, BSE is thought to have mutated from the scrapie agent found in sheep. The first cases of BSE appeared in the U.K. in 1986 and have been linked to changes in the rendering practices for livestock feed. These changes may have allowed infectious meat or bone meal from scrapie-infected sheep to be fed to cattle. Then feeding their rendering meat and bone meal to non-infected cattle seems to have spread the disease. A USDA ban on rendering sheep started in 1987 and feeding any tissue from cow brain and any ruminant-derived protein supplements to cattle and other ruminant animals was started in 1997. That was to eliminate the possibility of a single cow becoming infected, her tissues fed to other cattle and spreading the disease to large numbers of cattle through the feed.

Can humans get BSE from infected animals?

The risk is “close to zero,” according to David Ropeik of the Harvard Center for Risk Assessment, which has done a thorough study of the risk of BSE to the human food supply. The prion has never been found in the meat or the milk from cows infected with BSE. Less than 160 people worldwide have been infected with this disease and they all had a genetic type specific to only 16% of all people. Mice that have been developed to be highly susceptible to BSE have been fed meat and milk from infected cows and did not get the disease. All of the science confirms that this is not a food safety issue in the US because no brain tissue or other possible BSE infected material is sold for human consumption in the US.

How will BSE affect the way I do business?

This will affect us in two ways; one will be marketing of downer cows and the second will be identification and records of cattle movement. The focus for testing in the US has been on downer cows. It was assumed that cows in the late stages of this disease would be “downers”. To further reduce any chance of a BSE cow getting into the food chain **starting Dec. 30, 2003 the USDA will no longer allow “downer” cows to be processed for human food.** The second way this is going to impact Georgia beef producers is that we will have **an ID system that will insure trace ability of all cattle.** Cattle will need to be ID'd at the farm they are born, records of sales and death losses kept, and records of transfer at each location. So when any cattle leave your farm you will need to record the ID and where the animal went. You'll have to keep these records for some time. In the near future each farm will be assigned an ID and that will become part of your cattle ID. By implementing both of these of these requirements producers are going to help keep the image of beef as a wholesome safe product that consumers will want to purchase. **Food safety and the image of food safety must be our number one priority.**

Are Georgia cattle producers selling a safe wholesome product?

Yes! BSE was an unknown disease in 1987 when USDA stopped the rendering of sheep in the US. That decision may have prevented a disaster to our industry. At the height of the outbreak in England they had 1000 cases of BSE per week. The ban on imported cattle and meat and bone meal from affected countries has prevented our producers from suffering the fate of Canadian beef producers. In 2003, approximately 20,000 head of cattle were tested for BSE in the US. One cow was identified as positive and that cow appears to have been infected in Canada. However, if an infected cow was not diagnosed before the meat was processed, human infection is prevented because no brain or other infected tissue makes it into the human food chain. **We can feel confident as producers that we are providing a safe wholesome product.** To reassure our consumers we will need eliminate downer cows for human food and institute the national cattle ID system as soon as possible.