

Livestock Management

Wayne R. Wagner, *Livestock Specialist, WVU Extension Service*
Robert E. Pitts, *Veterinarian, WVU Extension Service*

February 2004

Safeguards against BSE protect U.S. food supply

This fact sheet was published as an article in the February 2004 issue of *West Virginia Farm Bureau News*.

Too often, the press has referred to BSE (Bovine Spongiform Encephalopathy) as "Mad Cow Disease," which gives one a false impression of the disease. BSE affects the central nervous system (spinal cord and brain) in bovine animals (cattle), which lose the ability to control their movement. The disease should always be referred to as BSE.

According to a report from the Harvard Center for Risk Analysis, BSE presents essentially no risk to consumers because of the safeguards that the U. S. Department of Agriculture, the Food Safety and Inspection Service, and the industry have in place. To put this into perspective, we can ask how many activities caused one or more deaths in the United States in 2003. BSE has not caused one death in this country. Part of living is assuming everyday risks. Because of the safeguards in place and the safety of our food supply, there is essentially zero risk associated with beef. The United States has the world's safest food supply. In fact, far more people have been killed in accidents involving the raising and handling of cattle than will ever die from BSE in this country.

One isolated animal was identified with BSE in December 2003 near Mabton, Wash. The 6½-year-old Holstein had been imported from Canada about 2½ years ago. The region where she was raised is the same region where Canada's lone BSE case was identified earlier in the year.

In 1997, the use of "at risk" animal by-products as a protein supplement was banned in the United States. It is believed that the only way a bovine can contract BSE is by eating infected parts of the central nervous tissue. It is possible that cattle born before 1997 in this country could have consumed feed containing central nervous tissue, which was legal at that time. Because of the ban, it

is not likely that any U.S. cattle born since 1997 have consumed a banned animal by-product. Blood meal is not considered a banned animal by-product. It is legal feed because the BSE agent has never been found in blood --not even in research studies that intentionally infected cattle with the agent.

There is no scientific evidence to even suggest that milk or muscle tissue can carry the agent that causes BSE. That agent is found in the central nervous system (spinal cord and brain), and none of that tissue from the BSE-positive cow in Washington ever entered the human food chain. BSE has never been found in cattle younger than 30 months. Because of BSE's long incubation period, scientists do not believe it is possible for an animal less than 30 months old to have BSE. During the past 15 years, several studies have investigated BSE-infected cattle, some of which were experimentally infected with BSE. The BSE agent, a prion, has never been located in the meat. These studies indicate there is essentially no risk for BSE in the meat or muscle.

Federal inspectors at slaughter facilities ensure that central nervous system tissue does not enter the food chain. That safeguard was in place before the discovery of the BSE-infected cow in Washington. Shortly after that cow was discovered, USDA declared that as soon as final rules can be published, the following will be prohibited from entering the food supply:

1. Specified risk material (SRM), which includes the skull, brain, trigeminal ganglia, eyes, vertebral column, spinal cord, and dorsal root ganglia of cattle over 30 months of age and the small intestine of cattle of all ages. These actions are consistent with those taken in Canada after discovery of BSE there in May 2003.
2. Meat from animals stunned by air-injection.
3. Mechanically separated meat.

Effective immediately, USDA implemented the following procedures and directives to reassure consumers that the nation's beef supply is safe:

1. All downer animals are banned from the human food supply.
2. Carcasses from all animals tested for BSE will be held in storage pending results of the test. (This was not done with the Washington cow harvested on Dec. 9. That is the reason for the recall of meat from all carcasses processed by the plant on that date. This was done to reassure consumers that the beef supply was safe.)
3. A national identification system will be accelerated.
4. An international team of experts will review this case and the procedures that ensure food safety.

More information can be found on the Web (www.bseinfo.org, www.usda.gov, and www.ext.wvu.edu). There is no one to blame for the discovery of BSE in the United States, but the cattle industry has suffered and will continue to suffer economically from this incident. It is important to recognize that no public health hazard resulted from this incident. But because BSE is an animal health issue, it is a concern to cattle producers. This nation's beef supply, including ground beef, is safe.

Programs and activities offered by the West Virginia University Extension Service are available to all persons without regard to race, color, sex, disability, religion, age, veteran status, political beliefs, sexual orientation, national origin, and marital or family status. Issued in furtherance of Cooperative Extension work, Acts of May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture. Director, Cooperative Extension Service, West Virginia University. West Virginia University is governed by the Board of Trustees of the University System of West Virginia.