USDA’s BSE Surveillance Efforts

The U.S. Department of Agriculture (USDA) has taken aggressive measures to prevent the introduction and potential spread of bovine spongiform encephalopathy (BSE). USDA’s Animal and Plant Health Inspection Service (APHIS) has conducted surveillance for the disease since 1990. Surveillance has always targeted those cattle populations where the disease is most likely to be found. The level of surveillance in the United States has increased steadily from 1990 and jumped significantly in 2004 when USDA implemented an enhanced surveillance program from 2004 to 2006 following the detection of BSE in an imported cow in December 2003. When enhanced surveillance ended, APHIS then implemented its current, ongoing BSE surveillance program.

Ongoing BSE Surveillance
Ongoing BSE surveillance exceeds surveillance guidelines set forth by the World Organization for Animal Health (OIE). In fact, the program provides for testing at a level 10 times that which is recommended by OIE.

The ongoing BSE surveillance program, which samples approximately 40,000 animals each year, samples the cattle populations where the disease is most likely to be found. The statistically valid surveillance level of 40,000 is consistent with science-based, internationally accepted standards. This level allows USDA to detect BSE at the very low level of less than 1 case per million adult cattle, assess any change in the BSE status of U.S. cattle, and identify any rise in BSE prevalence in this country.

The targeted population for ongoing surveillance focuses on cattle exhibiting signs of central nervous disorders or any other signs that may be associated with BSE, including emaciation or injury, and dead cattle, as well as nonambulatory animals. Samples from the targeted population are taken from locations including farms, veterinary diagnostic laboratories, public health laboratories, slaughter facilities, veterinary clinics, and livestock markets.

Samples are collected from renderers and 3D/4D facilities, with a quota set at 5,000 samples. USDA’s National Veterinary Services Laboratories (NVSL) in Ames, IA, along with contracted veterinary diagnostic laboratories, continue to use rapid screening tests as the initial screening method on all samples. Any inconclusive samples are sent to NVSL for further testing and analysis.

USDA’s surveillance program uses OIE’s weighted surveillance points system, which was adopted in May 2005, and reflects international scientific consensus that the best BSE surveillance programs focus on obtaining quality samples from targeted subpopulations rather than looking at the entire adult cattle population.

The number of points a sample receives correlates directly to an animal’s clinical presentation at the time of sampling. The highest point values are assigned to those samples from animals with classic clinical signs of the disease. The lowest point values correspond to clinically normal animals tested at routine slaughter. The goal of this weighted approach is to ensure that countries sample those cattle populations where the disease is most likely to be found.

Under the OIE guidelines, points compiled over a period of 7 consecutive years are used as evidence of adequate surveillance. At the current ongoing level of surveillance, the United States far exceeds OIE guidelines under the point system. It is important to remember USDA’s ongoing BSE surveillance program is not for the purposes of determining food safety. Rather, it is an animal health surveillance program designed to assess any change in the BSE status of U.S. cattle, and identify any rise in BSE prevalence in this country. What truly protects human and animal health is the system of interlocking safeguards, including the removal of specified risk materials—those tissues that studies have demonstrated may contain the BSE agent in infected cattle—from the human food chain, along with the U.S. Food and Drug Administration’s 1997 ruminant-to-ruminant feed ban.

This ongoing BSE surveillance program allows USDA not only to detect the disease if it exists at very low levels in the U.S. cattle population, but also provide assurances to consumers and our international trading partners that the interlocking system of safeguards in place to prevent BSE are working. USDA will continually analyze the ongoing surveillance strategy and make adjustments as needed to ensure that we maintain a robust surveillance program that provides the foundation for market confidence in the health of U.S. cattle.

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