Veterinary Services

July 2006

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 enhanced surveillance following the detection of BSE in an imported cow in December 2003.

USDA'S Enhanced BSE Surveillance Program

The goal of USDA's enhanced BSE surveillance program, which began on June 1, 2004, was to test as many animals in the targeted population as possible over a 12- to 18-month period. This tremendous undertaking provided a snapshot of the domestic cattle population to help define whether BSE is present in the United States, and if so, at what level. The enhanced surveillance also assisted USDA in designing a long-term BSE surveillance program.

Since the enhanced surveillance program began, USDA has sampled more than 759,000 animals and, to date, only 2 animals have tested positive for BSE under the program. Both cases were in animals born before the United States banned the practice of feeding recycled ruminant protein to other ruminants. In line with USDA policies, neither of the affected animals detected under the enhanced surveillance program nor the imported cow detected in 2003 entered the human food or animal feed chains.

Based on the wealth of information gained during both the enhanced surveillance program and BSE surveillance conducted in the United States in the 5 years prior, USDA recently concluded that the prevalence of the disease in this country is extremely low, less than 1 case per million adult cattle, and that the most likely number of cases is between 4 and 7 infected animals out of 42 million adult cattle. Our analysis was submitted to the scrutiny of a peer review process, and the expert panel agreed with the appropriateness of our assumptions and the factors we considered, as well as with our estimate of BSE prevalence.

Ongoing BSE Surveillance

USDA will begin transitioning its enhanced BSE surveillance program to a level that is more commensurate with the extremely low level of risk in the United States. USDA has an obligation to provide 30 days notice of the change to contractors who are performing the sampling and testing, so the earliest the new surveillance program would begin is late August. Ongoing BSE surveillance will continue to exceed surveillance guidelines set forth by the World Animal Health Organization (OIE). In fact, the program will provide for testing at a level 10 times that which is recommended by OIE.

The ongoing BSE surveillance program, which will sample approximately 40,000 animals each year, will continue to sample 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 will be taken from the same locations as during the enhanced surveillance program, including farms, veterinary diagnostic laboratories, public health laboratories, slaughter facilities, veterinary clinics, and livestock markets. Samples will be 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, will continue to use rapid screening tests as the initial screening method on all samples. Any inconclusive samples will be sent to NVSL for further testing and analysis.

USDA's surveillance program will use OIE's new 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.

This system is not different from USDA's previous ongoing surveillance approach, it is simply a different method for evaluating surveillance programs. Both approaches target those cattle populations where BSE is most likely to be found. The OIE is simply assigning point values to different categories of animals. USDA has been targeting these subpopulations since BSE surveillance was initiated in 1990, and will continue to do so under the OIE weighted approach. 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 will far exceed OIE guidelines under the new 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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