

Congressional Research Service

"Mad Cow" Disease (BSE)
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The first confirmed U.S. occurrence of bovine spongiform encephalopathy (BSE or "mad cow" disease) was announced on December 23, 2003, in a Holstein dairy cow born in Canada and slaughtered December 9 in Washington state. U.S. officials have characterized the risks to human health as extremely low. Nonetheless, they are still attempting to determine the extent if any, of other BSE cases here, to strengthen safeguards against the disease, and to reassure consumers and foreign markets that U.S. beef is safe. Congress is following closely the BSE situation; some Members have proposed legislation on aspects of the issue.

Background

The Disease. BSE is a slowly progressive, incurable disease affecting the nervous system of cattle. It was first diagnosed in Great Britain in the mid-1980s, where it economically devastated the beef industry there, and spread to other European countries. BSE has been found in approximately 187,000 cattle worldwide, 183,000 of them in Great Britain and most of the rest elsewhere in Europe. Scientific experts believe the primary if not only means of transmission of BSE is through the consumption of feed infected with the BSE agent. After the agent is ingested, BSE takes anywhere from two to eight years for clinical signs to appear in cattle.

Consumption of meat from infected animals has been linked to the human disease, variant Creutzfeldt-Jakob Disease (vCJD), that affects the central nervous system and is almost if not always fatal. Approximately 150 people have been diagnosed with and died from vCJD, most also in Great Britain.

USDA Response. USDA's Animal and Plant Health Inspection Service (APHIS) has the lead role in coordinating animal health surveillance and containment. USDA's Food Safety and Inspection Service (FSIS) is responsible for meat safety.

After the December 2003 discovery, APHIS launched an investigation to trace the cow's origin and how it became infected. In addition, USDA announced on December 30, 2003, a number of new actions on BSE. Most appeared in the January 12, 2004 *Federal Register* as interim final rules, and most are within the purview of FSIS. They include banning from the human food chain nonambulatory (downer) cattle; declaring as Specified Risk Material (and unfit for human food) 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; prohibiting tissue from advanced meat recovery (AMR; a mechanical system that removes muscle tissue from bone) to be used for cattle over 30 months and other AMR changes; and banning air-injection stunning, to ensure that portions of brain are not dislocated into the tissues of the carcass during slaughter.

USDA also announced that it would expedite work on a national animal ID system, which a government-industry task force has been considering for several years, and which a number of state and regional entities have been testing in various forms.

Testing and Surveillance. In June 2004, USDA began a significant expansion of its APHIS-directed BSE surveillance program, from a planned 40,000 cattle annually. It now says it is now testing, over a 12-18 month period, as many as it can of the 446,000 U.S. cattle considered at highest risk of infection, in order to gauge the extent of any BSE in the United States. The total number of tests is expected to range from 200,000 to 300,000 during the period.

APHIS has been posting the test results on its website. USDA's management of BSE testing and how it makes results available has attracted criticism. For example, on July 14, 2004, the House Government Reform and Agriculture Committees held a joint hearing on the surveillance program, where USDA's Inspector General (IG) testified on a draft OIG report which cites a number of limitations in the Department's expanded surveillance plan. The final OIG report was issued in August 2004 and generally parallels the preliminary findings. USDA has defended its testing, but also promised to address OIG's criticisms and recommendations.

FDA Actions. The Food and Drug Administration (FDA), which regulates animal feed ingredients, had banned the feeding of most mammalian proteins to ruminants in 1997. On January 26, 2004, FDA announced that it would strengthen BSE safeguards for feeds and for the food and cosmetic products it regulates. Moving more cautiously than many observers initially had anticipated, on July 14, 2004, FDA published an interim final rule to prohibit certain cattle-derived materials in agency-regulated products. Also on July 14, FDA joined USDA in publishing an advance notice of proposed rulemaking seeking comment on possible additional preventive actions, including possibly tighter animal feed rules

International Panel Findings. The Secretary had named an international panel of scientific experts to review U.S. actions after the BSE discovery and to recommend enhancements. The panel's report, released February 4, 2004, recommended that additional steps be taken, including more stringent animal feeding rules and the increased cattle testing now underway.

Trade and Economic Implications. After announcement of the U.S. BSE case, most countries blocked some or all U.S. beef imports. Since then Administration officials have been negotiating to reopen foreign borders. Earlier in 2004, two of the four leading markets, Canada and Mexico, began admitting some U.S. beef, but Japan and Korea, the other two leaders, remained closed in September 2004.

Japan has insisted that all cattle killed for its beef market should be tested for BSE, despite USDA insistence that such measures are unscientific. While the two countries negotiate, at least one smaller packer, Creekstone Farms Premium Beef, has been seeking USDA's permission to test all of its cattle. USDA, which claims authority to approve test methods and their uses under the Virus-Serum-Toxin Act, so far has denied the request. USDA and meat industry officials are concerned, among other things, that permitting

100% testing would undermine negotiations, be costly, and misleadingly imply that such meat is safer than untested meat.

At stake is an estimated \$3.9 billion worth of beef product exports (the 2003 level), the equivalent of about 10% of farm cash receipts for cattle and calves. Prior to the BSE announcement, U.S. fed cattle prices were approaching \$100 per 100 pounds (cwt.). By early January they had declined to the low to mid \$70s. However, U.S. consumer demand appeared to have held since the December BSE announcement. In its latest supply-demand report, USDA forecast cattle prices to average \$84-86 per cwt. in 2004, compared to its pre-BSE forecast of \$84-91 per cwt.

(For meat and cattle industry data also see the ERS website at <http://www.ers.usda.gov/news/BSECoverage.htm>.)

U.S.-Canada Trade. After Canada announced, in May 2003, its own single BSE case in Alberta, the United States immediately blocked imports of all Canadian ruminants and products pending further investigation. (See APHIS's website on BSE/Canada information.) Canadian authorities conducted an investigation, quarantined the farm which sent the cow to slaughter, along with others of potential risk, and killed and tested some 2,800 cattle. (See the Canadian Food Inspection Agency website.) Since then, the United States has taken steps to reopen its border to some Canadian products, as Canada has done for some U.S. products.

A federal judge in Montana on April 26 issued a temporary restraining order against USDA's attempt (announced April 19) to expand the types of beef imports permitted from Canada. USDA later acknowledged that it had not followed proper administrative procedures in allowing some 7.3 million pounds of certain types of Canadian beef products into the United States that were not on the list of so-called "low-risk" beef products Department officials had first publicized widely last August 8. USDA has asserted that none of the Canadian imports are unsafe. The 7.3 million pounds were among a total of 518.6 million pounds of Canadian beef that the United States has admitted since September 1, 2003.

In Congress

The U.S. BSE case has been a priority during the second session of the 108th Congress, and particularly in the House and Senate Agriculture Committees, which held BSE hearings in January 2004. Several Members have introduced bills addressing various aspects of the BSE issue, such as legislation to ban downers for food (H.R. 2519, S. 1298), to prescribe mandatory animal ID and/or meat traceability rules (H.R. 3546, H.R. 3787, H.R. 3822, H.R. 3961, H.R. 4005, S. 1202, S. 2008, S. 2070), and to require BSE tests on most cattle (H.R. 3705), as well as other bills (S. 2051, S. 2007, S. 2451, H.R. 3714, H.R. 4001, H.R. 4121, H.R. 4576). Such measures likely would attract new support in the event of new developments, such as finding another U.S. case.

Funding for the Administration's BSE efforts are included in the FY2005 USDA appropriation, which passed the House as H.R. 4766 on July 13, 2004, and was reported by the Senate Appropriations Committee as S. 2803 on September 8, 2004.

CRS Products

CRS Issue Brief IB10127, Mad Cow Disease: Agricultural Issues for Congress

CRS Report RL32199, Bovine Spongiform Encephalopathy (BSE, or "Mad Cow Disease"): Current and Proposed Safeguards

CRS Report RS21709, Mad Cow Disease and U.S. Beef Trade

CRS Report RL32414, The Private Testing of Mad Cow Disease: Legal Issues

CRS Report RS21771, Animal Rendering: Economics and Policy

CRS Report RL32012, Animal Identification and Meat Traceability

CRS Report 97-508, Country-of-Origin Labeling for Foods

CRS Issue Brief IB10082, Meat and Poultry Inspection Issues