

**DEPARTMENT OF FOOD AND AGRICULTURE**

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## **BACKGROUND SHEET**

### **Bovine Spongiform Encephalopathy Management Plan**

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The California Department of Food and Agriculture (CDFA) works closely with the United States Department of Agriculture (USDA) and the Food and Drug Administration (FDA) to prevent, monitor, and prepare to respond to bovine spongiform encephalopathy (BSE). BSE emerged in the United Kingdom (UK) in 1986 and has affected nearly 200,000 cattle to date, the majority in the UK, but at least 12 other countries have had cases of BSE as of January 15, 2001. BSE has overwhelmed the livestock industry in the UK, damaged the confidence of consumers across Europe, and its effects have rippled across the world. The BSE agent has been transmitted between cattle principally through feed - meat and bone-meal made from rendered ruminant products being the contaminated component. A new human disease, variant Creutzfeldt-Jakob disease (vCJD), was recognized in 1996, and most scientific information supports that it is caused by the same agent that causes BSE. Evidence suggests that the BSE agent may have been transmitted from cattle to man through the consumption of beef contaminated with the infectious agent. There is currently no vaccine, no live animal test and no treatment for BSE.

#### **Prevent BSE from Entering the US**

BSE and vCJD have never been diagnosed in the US. Beginning in July 1989, and with modifications over time, the USDA has implemented policies to prevent importing the BSE agent. Since July 1989, importation of live ruminants from countries with BSE has been banned. In November 1989, this ban was extended to include most ruminant products from countries where BSE had been diagnosed. In December 1997, this ban was again extended to include live ruminants and most ruminant products from all Europe. Ruminants imported from Europe before these bans have been traced and destroyed or are being closely monitored to keep them out of the food chain. This included 496 UK cattle imported into the US between 1981 and 1989, and 38 German and two Belgium cattle imported before 1997. California received none of the cattle imported from the UK, but received one German cow, which was euthanized and incinerated in 1999. In December 2000, the importation of all rendered animal products from Europe, regardless of species, was banned.

#### **Prevent BSE Transmission and Amplification in the US**

Since August 1997, the FDA has prohibited the use of protein derived from mammalian tissues (with certain exceptions including milk, blood, porcine and equine proteins) in ruminant feed to prevent transmitting and amplifying spongiform encephalopathies in the animal food chain.

**Compliance Within California:** California's rendering industry processes over one million tons of waste material to produce about 275,000 tons of animal product yearly. California does not currently import meat and bone meal except from Arizona (for protein blending) and some lamb meal from New Zealand (for pet foods). Approximately 50% of the rendered product made in California is exported, mostly to China. The remainder is used in California in feed for pets, swine, poultry and aquaculture, and as fertilizer. Through a partnership agreement with the FDA, CDFA personnel are commissioned and credentialed to inspect feed-manufacturing facilities in California. In cooperation with the FDA, all 176 feed-manufacturing facilities in California have been inspected for compliance with the ruminant feed ban, including 16 rendering/protein blending firms. All feed manufacturing facilities are in compliance with the requirements of the feed ban.

Inspection for compliance with the ruminant feed ban has been included as part of a comprehensive feed safety inspection that is now performed at feed-manufacturing facilities. Manufacturing facilities that use prohibited materials are visited approximately every two months by CDFA field staff for various feed inspections and sampling, thus ensuring ongoing inspections for compliance with the ruminant feed ban. Additionally, over 200 dairy-producer facilities have been inspected for compliance with the feed ban during visits for an ongoing residue contract with the FDA. Training seminars for the livestock feeding industry have been given, in cooperation with the FDA. Information on BSE prevention has also been provided to each dairy producer in CDFA newsletters.

### **Surveillance for BSE Within California**

Surveillance for BSE in the US began in 1990. Educating all levels of the cattle industry about the signs of BSE is necessary for good surveillance. The CDFA-Animal Health Branch has 30 veterinarians and 15 livestock inspectors dedicated to all aspects of animal health management, including twelve veterinarians who have received foreign animal disease (FAD) training from the USDA, and two veterinarians trained in the UK to recognize BSE. The CDFA-Meat and Poultry Inspection Branch has an additional eleven veterinarians, many with individual training in foreign animal diseases. In addition, the USDA has twelve veterinarians stationed in California who have been trained to recognize FADs, and two veterinarians with the California Department of Fish and Game have FAD training. Educational outreach programs and information about BSE have been provided by USDA and CDFA for veterinarians, laboratory diagnosticians, producers, other industry members and regulators. Updates are given regularly to California veterinarians and industry members through newsletters, publications and personal visits. The CDFA contracts with the California Animal Health and Food Safety Laboratory System (CAHFS), administered by the School of Veterinary Medicine, University of California at Davis, for livestock and poultry disease surveillance in California, which includes screening for BSE. The CAHFS has laboratory diagnosticians trained to recognize BSE, including two trained in the UK, and provides California with an excellent BSE surveillance system.

Surveillance for BSE in the US targets cattle showing signs that are consistent with BSE. Surveillance is both active (we look for cases) and passive (we take what is presented to us), and consists of examining brain tissue from:

- cattle reported by owners and veterinarians because they are showing neurological signs
- neurological cases that have been submitted to veterinary diagnostic laboratories and public health laboratories
- cattle condemned at slaughter for neurological reasons
- a random sample of cattle "non-ambulatory" at slaughter

Over 1,507 cattle brain samples have been examined for BSE from California, and over 11,953 have been examined nationwide as of December 31, 2000.

### **Response Plan Within California**

An emergency response plan has been developed by the USDA and will be activated if BSE is diagnosed in the US. This response plan focuses on protecting human health and eradicating BSE. The plan contains instructions on who does what, when, where and how if BSE were diagnosed in the US. The National Veterinary Services Laboratory (NVSL) in Ames, Iowa, is the organization responsible for activating the BSE response plan because of its role in diagnosing the disease. If the NVSL has a presumptive diagnosis of BSE, samples will be sent to the UK for confirmation and the emergency response plan will begin. The director of NVSL will notify the deputy administrator of USDA/Animal and Plant Health Inspection Services/Veterinary Services.

If BSE is suspected in California, CDFA will be notified immediately and field activities of the response plan will be coordinated between USDA and CDFA. California's recommended activities may include actions in addition to those outlined in the USDA response plan. With a preliminary BSE diagnosis, activities in California would include:

- tracing the animal back to the herd of origin and quarantining the herd
- an epidemiological investigation of the suspect animal, including a complete history of feeding practices and all premises where the case animal resided from birth to diagnosis
- tracing and holding progeny, herdmates and birth cohorts
- tracing and holding the carcass and all food items associated with the case, including rendered products
- tracing and quarantining all suspected feeds

If the UK laboratory confirms BSE, CDFA's recommended response will include:

- depopulating the herd of origin, all progeny, and birth cohorts of the case
- destroying all carcasses and food items associated with the herd, including rendered products, to prevent them entering the human or animal food chain
- CDFA and USDA working together to determine if a declaration of emergency is required to fund response activities, including indemnification