January 7, 1997

Honorable Dan Glickman  
Secretary of Agriculture  
14th and Independence Streets, SW  
Washington, D.C. 20250

Honorable Tom Billy  
Administrator, Food Safety and Inspection Service  
U.S. Department of Agriculture  
14th and Independence Streets, SW  
Room 331E  
Washington, D.C. 20250

Dear Secretary Glickman and Administrator Billy:

Last year, consumers all over the world were given the startling news that a number of cases of human illness were likely linked to consumption of British beef products produced from cows infected with a nervous system disorder called bovine spongiform encephalopathy (BSE). This so-called “mad cow” disease was allowed to reach epidemic proportions in Great Britain during the 1980's and 1990's.

Last week, the United States Department of Health and Human Services announced a proposed rule to implement a ruminant-to-ruminant feed ban to protect cattle from BSE. Dr. David Kessler, Commissioner of the Food and Drug Administration, told The Washington Post the rule represented a “fire wall” to prevent BSE from spreading in the event the disease ever emerges in the United States.¹

It is laudatory that the Food and Drug Administration is moving forward to minimize the hazard of BSE in the American cattle population. However, if BSE is occurring at all in the US, there is an even more immediate risk to public health from the use of spinal material in mechanical meat recovery systems.

We urge the Department of Agriculture to address this hazard promptly by promulgating a rule requiring beef processors to completely remove the entire spinal cord from the spinal column prior to the use of these bones in mechanical meat recovery systems. If the processors cannot

ensure complete removal of all spinal cord material, they should be prohibited from using spinal column and neck bones in mechanical meat recovery systems. In addition, the USDA should ban the use of bovine offal that could contain BSE as recommended by the World Health Organization, and should determine what other steps are needed to erect a “fire wall” against BSE entering the human food supply.

TSEs Are Devastating Diseases

BSE is one of a family of neurologic diseases called transmissible spongiform encephalopathies (TSEs) which are characterized by a relatively long incubation period, short duration of clinical signs, and a 100% mortality rate. TSEs have been documented in a wide number of species, including sheep (scrapie), cattle (BSE), humans (Creutzfeldt-Jakob disease or CJD), deer, mink, cats, and others.

Many cases of TSE, including 90% of CJD cases, are sporadic, which means that the disease can show up in an individual with no apparent cause. The disease is also infectious. TSEs can be transmitted from one species to another, although significant barriers exist to prevent this.

Recent evidence from Great Britain suggests that BSE may have jumped the species barrier between cattle and humans. So far, fourteen cases of CJD in Britain and one in France may be linked to the consumption of BSE-infected beef products. These variant CJD (vCJD) cases are unusual because the victims are younger, the duration of illness is longer, and the pathology is different than typical CJD cases. In addition, recent research has shown that the vCJD is more similar to BSE strains than typical CJD strains. This important finding lends support to the theory that these cases of human illness may have been caused by consumption of British beef.

BSE May Exist in the US Cattle Population

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Scientists cannot rule out the possibility that sporadic cases of BSE exist in the US cattle population. It is easy to see how BSE might not be detected in United States. BSE has a long incubation period, so infected animals could be slaughtered before exhibiting symptoms. In addition, USDA has not sufficiently tested for BSE. While USDA inspects over 33 million head of cattle per year, it has only tested 5,100 cattle brains for BSE since 1986.\(^6\)

Although the origin of the BSE epidemic in Britain is generally believed to be an infection from sheep rendering product used in cattle feed, there are other views as well. According to the Institute of Food Science and Technology position statement on BSE,

Some offer the view that BSE has always existed [in Britain] at a low and previously unrecognized level in cattle, and the inclusion of infected cattle meat in the animal feed resulted in a recycling and amplification effect. (Some older farmers and vets now say, with hindsight, that it has always existed, but occurred so rarely that when a cow had “the staggers” nobody recognized it as anything but an inexplicable one-off local event.)\(^7\)

Several US researchers have stated that BSE may already infect US cattle at low levels.\(^8\) One scientist has conducted research that showed a possible link between a 1985 outbreak of TSE in mink and BSE in cattle.\(^9\) He has said that BSE may occur in some cows that exhibit signs of central nervous system disorders, commonly called “downer cow” syndrome.\(^10\) According to USDA’s Animal and Plant Health Inspection Service, approximately 35,000 to 40,000 cows die each year in the US from downer cow syndrome. If BSE occurs sporadically in the US cattle population, it is likely that some animals with early stages of the disease may be entering US slaughter facilities without the condition being recognized.

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\(^7\) Institute of Food Science and Technology, “Bovine Spongiform Encephalopathy (BSE),” IFST Position Statement, Part 1, November 22, 1996, p. 5. The IFST is a British-based independent professional qualifying body for food scientists and technologists.


Taken together, this evidence is strong enough to warrant prophylactic measures to minimize the likelihood that BSE-infected material is entering the US food supply. Given the devastating outcome of CJD in humans, it is appropriate that USDA immediately take steps to erect a “fire wall” to protect consumers from the possibility that the infectious agent could enter the meat supply through mechanical meat recovery systems.

**Meat Recovery Systems Can Transmit the Infectious Agent**

Mechanical meat recovery systems which use infected parts of cattle with BSE could transmit the disease to humans. These machines take bones with attached meat and put them through a device which removes the meat from the bone. The machines in most common use are called “advanced meat recovery systems.” They claim to detach the meat without crushing, pulverizing or grinding the bone itself. According to FSIS, bones must emerge from these machines essentially intact and in natural conformation so that they are recognizable, i.e., comparable to those resulting from hand-deboning. Advanced meat recovery systems produce a product that can be called “meat” under current government requirements. Machines are also used for producing a product called “mechanically separated” beef or pork. According to USDA, machines that produce this product crush or pulverize bones under high pressure and screen out bone tissue. This results in a paste-like material with a limited bone solids content.

If spinal cord is attached to the spinal column that enters these machines, it is bound to be incorporated into the meat product which is produced. Spinal cords from cows with BSE are highly infectious. Mechanical meat recovery systems provide one of the best opportunities for BSE-infected material to enter the food supply.

The parts of the cattle known to carry the infectious agent that can cause BSE include the spinal cord, brain and retina. Great Britain has banned “specified bovine offal” from the human food chain, including the brain, spinal cord, tonsils, thymus, spleen and intestines. To minimize the risk of BSE entering the human food supply, it is critically important that FSIS place restrictions on the use of these cattle parts in mechanical meat recovery systems.

**Current Regulations are Not Sufficient**

Although an existing regulation deals with the use of spinal cords generally (9 CFR 318.6(b)(4)), the regulation, by its express language, only applies to detached spinal cords. The section states that “detached spinal cords shall not be used in the preparation of edible product.”

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but does not address the use of spinal cords that are still attached to neck or back bones or other parts of the spinal column when they enter mechanical meat recovery systems.

Although United States companies using advanced meat recovery systems have told CSPI that they remove spinal cords, such voluntary compliance is not enough. In fact, Great Britain found that even with a mandate prohibiting the use of specified bovine offal in the human food supply since 1988, compliance was inadequate. Following unannounced visits to slaughterhouses where they observed incomplete removal of spinal cords, the British government instituted a complete ban on the use of the vertebral column of a bovine animal in the recovery of meat by mechanical means.¹² A copy of this law is attached.

Recommendations

A regulation that is fully protective of public health must prohibit the use of intact spinal cords and partial spinal cords, not just those that are detached from bones. CSPI recommends that USDA immediately promulgate a rule requiring beef processors to completely remove all spinal cord from the spinal column prior to the use of these bones in mechanical meat recovery systems. Processors who cannot ensure complete removal of all spinal cord material from the bones before processing should be prohibited from using the spinal column and neck bones in mechanical meat recovery systems.

In addition, the rule should ban the use of all bovine offal that has been identified as containing the infectious agent for BSE, including but not limited to the brain, retina, spinal cord, spleen, thymus, nostrils, and intestines. Such a ban would mirror the recommendation of the World Health Organization, as well as the ban implemented by the British government.

Respectfully submitted,

Caroline Smith DeWaal
Director of Food Safety

Attachments

cc: FSIS Docket Clerk