

## ***Existing U.S. barrier for BSE needs strengthening***

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Published in FeedStuffs, 75(8), February 24, 2003.

In October, epidemiologists in the U.K. reported that up to 2 million cows in that country, double the previous estimate, had been infected with bovine spongiform encephalopathy (BSE), better known as mad cow disease. The U.S. has taken measures to prevent BSE but consumer advocates, concerned about the fact that much remains unknown about BSE and with the spread of chronic wasting disease – a related condition in deer, have called for additional measures to protect human health.

Because precautions are costly there is understandably little support within the beef industry for additional measures. In general industry seems to agree with what appears to be USDA's 'official line' – i.e, 1) the U.S. has never had a case of BSE, and 2) the risk of getting it is extremely low. In view of the potentially disastrous consequences of BSE for U.S. beef and the implications for human health (119 deaths in the UK), it is worthwhile examining more closely the basis for USDA's position.

### ***1. We've never had it***

It's true we haven't had a case of BSE in the U.S., but the fact is we haven't been looking particularly hard. Secretary Veneman announced in February that testing would be doubled to about 12,500 per year. But that's still a tiny percentage of more than 30 million head of cattle processed annually and pales in comparison to the level of testing in countries known to have the disease. Last year over 8 million animals were tested in Europe and Japan now tests all cattle – about 1.2 million per year - destined for human consumption.

More important however, the current level of testing is far too low compared to the possible incidence of the disease if it is present. If BSE is in the U.S. it stands to reason that it must be at a much lower level than in countries where clinical cases abound. In Europe for example, in what are termed "at-risk" animals – such as cows that die on farm - the incidence is about one per thousand animals. If it were present in the U.S. at that level it would certainly have been discovered. But among healthy animals in Europe – those tested only because they exceed a 30-month age limit on animals for human consumption – the incidence is only about 1

in 25 thousand. At that level, it would require 120,000 tests, ten times the current annual level, to be confident of detecting a case. The fact that we have not yet found BSE is not nearly as reassuring as might first appear.

## ***2. The risk is extremely low.***

On the question of risk, USDA cites a November 2001 report by the Harvard Center for Risk Analysis and Tuskegee University to support the idea that the risk of BSE *occurring* in the U.S. is extremely low. However the purpose of that study was to evaluate measures to prevent the spread of BSE if it were to occur, and it goes on to state “BSE is extremely unlikely to *become established* in the U.S.” A fine distinction perhaps, but critical when one realizes that a single case would be sufficient to trigger the kind of consumer panic experienced in Europe and Japan.

So, what is the level of risk? According to the E.U. Scientific Steering Committee, which has conducted BSE risk assessments for several countries, the U.S. belongs in a category in which BSE is “unlikely but not excluded.” Three other countries in the same category - Austria, Finland and Slovenia - detected their first cases of BSE within the past year.

### ***The case for additional counter-measures***

The U.S. prohibits cattle and cattle-feed imports from countries with BSE and, since 1997, has banned the feeding of ruminant-derived protein to cattle and sheep. That feed ban should, if properly enforced (not the case according to the General Accounting Office) prevent BSE from spreading in cattle. Important as that might be however, it would not, in the event of the disease being discovered, be as reassuring to consumers as a guarantee that they themselves were insulated from the disease.

Earlier this year, the GAO reported that some foods contain traces of bovine brain or spinal cord. The U.S. does not ban human consumption of those tissues and so GAO recommended that consumers be informed, via warning labels, about foods that might contain them. But USDA rejected the suggestion, on the grounds that warnings should be reserved for known hazards, and since the U.S. does not have BSE, no such hazard exists. This “we don’t have it and the risk is low” approach has been used before. It was essentially the same approach taken in Germany and Japan where official ‘BSE free’ rhetoric backfired with devastating

economic consequences when the first cases were discovered.

Plenty of mistakes have been made in connection with BSE – chief among them the continued reassurances from British officials about the safety of their beef until the 1996 announcement of the link between BSE and a new form of the deadly Creutzfeld Jacob Disease (vCJD) in humans. But there have also been successes – albeit fortuitous ones. In 1989, scientists advised the U.K. government to ban the use of potentially infectious bovine tissues in baby food. The government, for the sake of convenience rather than precaution, applied the ban to all food. In going beyond the original recommendation, they implemented a measure that likely saved many lives.

The lesson here may be that in dealing with BSE and the degree of scientific uncertainty surrounding it and related TSE diseases, application of the precautionary principle – the idea that precautions be taken prior to the availability of conclusive evidence about the risks - is a sensible approach. In the U.S. the disease barrier between cattle and humans is not yet as strong it could be, nor according to the EU, which requires removal of potentially infective tissues from any U.S beef exported there, as strong as it should be. Strengthening that barrier would, in the event of BSE being discovered, provide solid evidence to back up any claims about the safety of beef, and help minimize, to the benefit of the industry, the inevitable consumer panic.

***Published in FeedStuffs, Vol. 75, No. 8. February 24, 2003. under the title “Existing U.S. barrier for BSE needs strengthening.”***

***Response by Dr. Don Franco, President, Center for Biosecurity, Food Safety & Public Health, Lake Worth, FL. FeedStuffs, March 17, 2003***