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BSE: WHAT ARE THE POTENTIAL COSTS?

In December we learned that the first case of Bovine Spongiform Encephalopathy (BSE; mad cow disease) had been diagnosed in the United States. This animal was a Holstein dairy cow born and raised on a dairy farm in Calmar, Alberta, Canada. She was 4 _ years old when she was imported into the United States in 2001 and became part of a dairy herd in Mabton, Washington. The announcement on December 23rd, 2003 that this cow was positive for BSE sent shock waves through the U.S. beef industry. The California Cattlemen's Association, the NCBA, the California Beef Council and a number of other groups and individuals did an amazing job of managing the immediate crisis for all the beef producers in California and the U.S. Now that the initial crisis is past, many questions have come up regarding several aspects of BSE. One of the obvious questions is "What will BSE cost the U.S beef industry?" This month we will explore some of the potential costs based on the experience of European producers who have been dealing with this issue for several years.

What has it cost us already?

The biggest cost so far has been the loss of the majority of our export markets for beef. The major importers of our beef products have been Japan, South Korea, and Mexico. All of these countries closed their borders immediately after the announcement in December. This is despite the fact that the cow involved was not born and raised in the U.S. The export market for beef is about 3-4 billion dollars per year depending on the year in question. Therefore, if these markets remain closed until next December we will have lost that money for our industry. On a per month basis, that would amount to approximately 250 million to 330 million dollars. Will that export market come back? Undoubtedly it will come back, the big question is how long will it take.

What will the diagnostic testing for BSE cost?

This is a complicated question. There are really three types of testing that must be considered. One is testing of cattle with clinical signs that might be due to BSE. These are cattle with obvious neurologic signs or symptoms. There are a number of causes of neurologic disease in cattle. Some of these diseases are polioencephalomalacia (PEM), Listeriosis, grass tetany, TEME (Hemophilus infections), anaplasmosis, and rabies. These cattle diseases have been recognized for many decades and continue to be important diseases. Rabies is also a concern for public health and must be diagnosed if suspected. Testing to determine the diagnosis of these types of problems will continue and really will not be an additional cost to production. We will continue to investigate these types of problems and add BSE testing where appropriate.

The second category for testing will be the "at risk cattle" or what the Europeans call "fallen stock". These "at risk cattle" include what we call "downer" animals. These animals are those that would develop nervous system signs of BSE given enough time; however, they fell and injured themselves before the signs became obvious. The other, more common, causes of "downers" is also a very long list of diseases that include some of those diseases listed above as well as transportation injuries, broken legs, milk fever in dairy cattle, cattle sick from another condition and too weak to rise, just to name a few. This category of cattle is extremely important for BSE testing, as it is the most probable group in which to find a case of BSE. This is the group of cattle that can no longer go to slaughter plants. Thus, USDA will have to come up with a comprehensive program to do testing and surveillance on this group of "at risk cattle". In France, for example, they spend about $130 on the testing of each of these animals. France is about 1.3 times the size of California and they test about 270,000 "at risk cattle" each year at a cost of about $36 million. In my opinion, we need to have some type of incentive program that encourages cattle producers and veterinarians to send these "at risk cattle" to rendering plants where they can be sampled and tested by the USDA. If we fail to adequately test and do surveillance on this group of cattle we will not be able to re-establish our export markets in a timely manner.

The third group to consider for testing is the healthy cattle that are harvested when they are 30 months of age or older. The animals in this group are much less likely to have BSE than the clinical cases or the "at risk cattle". However, once again our export markets may demand some testing of these cattle as part of a surveillance program. The cost to test one of these animals using the new, rapid screening tests is about $50 per head. An additional cost of testing these healthy cattle will be the need for a "test and hold" section in the slaughter plant. The brain section used for BSE testing (the obex) must be taken, sent to the lab, and a negative result returned before the carcass can be released for further processing. This requirement for a "test and hold" section may require costly renovations in some plants.

Where will all this testing be done?

One of our current problems is that we have only one laboratory in the U.S. approved to do BSE testing. This is the Veterinary Services Laboratory in Ames, Iowa. The lab has about a two week turnaround time for BSE testing and limited capacity. To be able to screen larger numbers of cattle, the individual state veterinary diagnostic laboratories will have to be certified to use the new, rapid screening tests. Again, this will be a significant additional cost.

What other costs might be involved?

One of the USDA regulations under consideration is the removal of SRM's (Specified Risk Materials) from cattle over 30 months of age and preventing these materials from entering the food chain for both humans and animals. In Europe, the SRM's include skull, brain, eyes, spinal cord and vertebral column (back bones), tonsils, spleen, small intestines, and thymus. This will probably be a similar list for our SRM

regulations. These materials will have to be separated and disposed of so they do not go into the human food chain or into meat and bone meal that could possibly be fed to animals. Currently, the cost of handling the SRM's in France is about $300 per head. So cattle harvested at 30 months of age or older may be subject to a large discount.

I think it is important for all cattlemen and the organizations that represent them to begin to consider these potential costs of prevention and/or control of BSE. It may be an expensive proposition. Therefore, it is well worth your consideration at the county, state, and national level.

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