

epidemiological investigation following detection of BSE sufficient to confirm the adequacy of measures to prevent the further introduction or spread of BSE, and continues to take such measures.

This factor addresses whether a region adequately investigates a case of BSE to determine if any of the risk factors have changed. If there has been any significant change in risk factors, there might be the possibility of increased incidence of BSE. Such an investigation would include, at the minimum, a traceback from the BSE-infected animal to determine possible herds of origin of the animal, a traceforward of any animals that moved from the BSE-affected herd, a traceforward of feed or rendered material that was derived from the carcass of the infected animal, and an investigation to determine the most likely source of the animal's exposure to BSE.

3. In a region in which BSE has been detected, the region took additional risk mitigation measures, as necessary, following the BSE outbreak based on risk analysis of the outbreak, and continues to take such measures.

This factor addresses whether a region implements all necessary risk mitigation measures to prevent further exposure to BSE. It distinguishes between those regions that thoroughly analyze their situation and address any problems from those that do not take mitigation measures and thus prolong possible exposure to BSE. Depending on the conclusions of the risk analysis conducted following the diagnosis of BSE, additional risk mitigation measures could include a broad eradication program, increased surveillance, or additional import restrictions.

Evaluating Canada as a BSE Minimal-Risk Region

We considered the above factors in combination in evaluating whether Canada qualifies as a BSE minimal-risk region, and discuss below the actions Canada took and continues to take regarding each of the factors.

Import Restrictions

Canada has maintained stringent import restrictions since 1990,² prohibiting the importation of live ruminants and most ruminant products from countries that had not been recognized as free of BSE by either the

United States, Canada, or Mexico, which have an agreement to recognize country evaluations conducted by any of the three countries, using the same standards. Canada prohibited the importation of live cattle from the United Kingdom and the Republic of Ireland starting in 1990, and subsequently applied the same prohibitions to other countries as those additional countries identified native cases of BSE. In 1996, Canada made this policy even more restrictive and prohibited the importation of live ruminants from any country that had not been recognized as free of BSE. Some animals were imported into Canada from high-risk countries prior to the imposition of these import restrictions. A total of 182 cattle were imported into Canada from the United Kingdom between 1982 and 1990. Similar to actions taken in the United States, efforts were made in Canada to trace these animals. In late 1993, after Canada identified a case of BSE in one of the imported bovines, all cattle imported from the United Kingdom or the Republic of Ireland that remained alive at that time were killed.

Import restrictions have also been imposed on ruminant products, including import restrictions on meat-and-bone meal that have been in place since 1978. In general, Canada has prohibited the importation of most meat-and-bone meal from countries other than the United States, Australia, and New Zealand. Limited amounts of specialty products of porcine or poultry origin were allowed to be imported into Canada under permit for use in aquaculture feed products. No meat-and-bone meal for livestock feed-associated uses has been imported, except from the United States, Australia, and New Zealand.

Surveillance

Canada has conducted surveillance for BSE since 1992. The OIE Code, Appendix 3.8.4, provides guidelines for surveillance and monitoring systems for BSE, identifying the minimum number of annual investigations recommended based on the adult cattle population of a country. To meet this recommendation, Canada would have to test a minimum of 336 samples annually, based on a population of 5.5 million adult cattle. Canada exceeds this recommendation, and has tested more than this minimum number of samples for the past 7 years. Additionally, Canada exceeds OIE recommendations by conducting active targeted surveillance. (Active targeted surveillance involves sampling animals with risk factors for BSE, even if the

animals have not shown clinical signs of disease.)

Feed Ban

Canada implemented a feed ban in 1997 that prohibits the feeding of most mammalian protein to ruminants. This ban exceeds what we consider the minimal necessary measure of banning the feeding of ruminant material to ruminants. Under the ban in Canada, mammalian protein may not be fed to ruminants, with certain exceptions. These exceptions include pure porcine or equine protein, blood, milk, and gelatin. The feed ban is essentially the same as the feed ban in place in the United States.

APHIS believes the length of the feed ban in Canada is sufficient to classify that country as a minimal-risk region for BSE. In comparison, classification as a minimal-risk country or zone by OIE criteria requires that a feed ban be in place for 8 years. This value may be set at a conservative level to account for the wide range that has been reported for the incubation period of BSE. Because of the variability in the incubation period for BSE, APHIS chose not to specify an amount of time that a feed ban needed to be in place in a minimal-risk region. Rather, we considered the sum total of the control mechanisms (e.g., effectiveness of surveillance, import controls, and feed ban) in place at the time of the diagnosis of BSE and the actions taken subsequently (e.g., epidemiological investigations and depopulation), thereby allowing the actions Canada took with regard to the other factors to compensate for a shorter feed ban. As an example, as discussed above, the level of surveillance in Canada, and the fact that it has been active and targeted, has exceeded OIE recommendations.

Canadian Government authorities inspect rendering facilities, feed manufacturers, and feed retailers to ensure compliance with the feed ban. Rendering facilities are regulated under an annual permit system, and compliance with the regulations is verified through at least one inspection each year. Feed manufacturers or mills, feed retailers, and farms have been inspected on a routine basis. These inspections have shown a high level of compliance. As noted above, Canada has maintained an effective ban on feeding mammalian protein to ruminants, with requirements similar to the feed ban in place in the United States, since 1997. The animal in which BSE was diagnosed in May 2003 was an 6-year-old native-born beef cow in the Province of Alberta that was born before the implementation of the feed ban.

² Canadian Food Inspection Agency (CFIA), December 2002; Risk Assessment on Bovine Spongiform Encephalopathy in Cattle in Canada.

Morley, R.S., Chen, S., Rheault, N.; 2003; Assessment of the risk factors related to bovine spongiform encephalopathy; Rev. Sci. Tech. OIE; 22(1); pg 157-178.