

It's Mad Cow madness

Ottawa has been too slow to take all the steps necessary to control BSE

BY BRIAN BERGMAN

Recent disclosures of more mad cows in our midst raise the nagging question of why Canada is not doing far more to screen the nation's cattle herds for the dreaded bovine spongiform encephalopathy, better known as mad cow disease. The reason we're seeing more confirmed BSE cases is that surveillance is on the upswing, with the Canadian Food Inspection Agency this year testing 30,000 slaughtered cows for BSE, up from 5,490 in 2003. But that's still a rather thin slice, when you consider the Canadian beef industry slaughters over three million animals annually. And it pales beside efforts in Europe, where every slaughtered cow over 30 months of age is tested, or Japan, where all slaughtered cows are tested, period. One begins to wonder: how many more diseased animals would emerge if we followed their examples? And are we afraid to find out?

Or is this, as government and cattle industry officials insist, just so much fear-mongering? Perhaps. But the demand for more vigorous BSE testing is far from new. Long before the first Canadian-born mad cow surfaced in May 2003, independent scientists who study brain-wasting conditions -- including BSE and its equally fatal human offshoot, variant Creutzfeldt-Jakob Disease (vCJD) -- were urging federal authorities to pre-emptively step up surveillance. They warned that, because BSE has such a lengthy incubation period -- four to five years -- untold numbers of animals could be exposed to the disease before a single case came to light. Their appeals fell on deaf ears.

Among the early critics was David Westaway, a University of Toronto molecular biologist who has spent two decades studying prions -- proteins present in the brain that, if abnormally shaped, are thought to trigger diseases like BSE. Westaway believes Canada should follow Europe's lead and test all slaughtered cows over 30 months (older cattle are more likely to show signs of BSE). That would mean screening about 500,000 animals annually, or about 17 times the current number. "We have to see what the real incidence is," says Westaway, "rather than what one hopes or guesses it is."

Others, including many ordinary ranchers, would like to go further, and test all animals regardless of age. This view is endorsed by Stanley Prusiner, a professor of neurology and biochemistry at the University of California, who won the 1997 Nobel Prize in medicine for his research into prions. In a recent article for *Scientific American*, Prusiner wrote: "I see no other option for adequately protecting the human food supply."

No one, it should be said, suggests Canada is facing a BSE crisis like the one that hit Britain in the 1980s. Since then, more than 183,000 British cattle have tested positive for BSE, and it's likely up to two million others were infected but undetected. By comparison, the four Canadian-born cows diagnosed with BSE to date seem picayune. As well, the British example shows prion diseases are very difficult to transmit to humans. After all, a population twice the size of Canada's spent years tucking into steaks and hamburgers made from millions of possibly infected cattle, and yet only 148 Britons have died of vCJD (that said, it was 148 too many).

So we can relax, eh? Well, not quite. For one thing, consider the economic toll from four measly cows: Canadian beef initially shunned in nearly 30 countries (including the critical U.S. market), \$5 billion in lost export sales, and financial ruin for many ranchers and feedlot operators. Also, wherever BSE has shown up (in 26 countries, and counting), getting it under control has required a three-pronged approach: strictly enforced feed bans, reformed slaughter practices, and increased BSE testing. On all fronts, Canadian authorities have been slow to act.

Part of the official fiction is that Canada was free of mad cow disease before 2003. It actually arrived at least a decade earlier. In December 1993, an infected British-born cow was found on an Alberta farm. Canada raced to exterminate nearly 400 other cows imported from Britain. But some animals undoubtedly slipped through the cracks, setting off a chain reaction we're only now beginning to appreciate. It then took four years for Canada to prohibit the feeding of rendered cattle parts to cattle, a cannibalistic practice the British had learned was the most likely way BSE gets transmitted. But we failed to follow Britain's example and extend the ban to cattle parts in feed intended for other animals, such as pigs and chickens which, in turn, could be rendered and fed back to cows (amazingly, seven years on, this loophole still exists). Canada also neglected to recall feed produced before the 1997 ban.

All the while, Canadian officials ignored warnings of a time bomb about to explode. In 2000, a panel of European scientists reported that, because of past practices, "BSE infectivity could have entered the Canadian system." Claude Lavigne, a retired associate director with the Canadian Food Inspection Agency, reacted strongly. "We feel this report is wrong," said Lavigne. "The risk of transmission where the disease doesn't exist is zero. And that's our situation."

Well, so much for that theory.

Canada also took too long to clean up potentially risky slaughterhouse practices. In 1989, Britain ordered that certain parts of cows believed to harbour the most prions -- including the brain and spinal cord -- be removed before reaching the human food supply. It wasn't until 14 years later that Canada did the same. Ironically, Canadian officials now argue that removing these "specified risk materials" represents the single most important safeguard against the spread of vCJD. So why didn't they do it sooner? Could it be that, just as with the feed ban, tighter regulations threatened to cost the politically connected meat processing and feed industry millions of dollars?

These questions are especially relevant given the blanket resistance from politicians, government regulators and the cattle industry to universal BSE testing. From the Prime Minister on down, we are told "the science" doesn't justify it. They argue it's a waste of time and money because there are no valid BSE tests for cows under the age of 24 months. Prusiner, the prion expert, disputes that. Younger cows, he says, can be infected and still not test positive because the abnormal proteins in their brains haven't built up enough to be detected by conventional exams. However, new, more sensitive tests now in use in Europe and Japan are starting to pick up BSE in animals as young as 21 months. As always, "the science" is evolving.

As for being too expensive, a survey released last year of BSE tests in Europe and the U.S. pegged the per-animal cost at between \$30 and \$55. Even assuming the higher figure, that's \$28 million to test all cows over 30 months slaughtered in Canada. Not cheap, but surely a pittance compared to the cost of having our beef shunned by the world. The prudent course is clear: Canada should immediately test all older cattle and, as BSE tests become more precise and inexpensive, expand that to younger cows as well.

None of this is meant to give comfort to U.S. protectionists who say the border should stay closed because Canadian beef is inherently unsafe. This is sheer hypocrisy, given that the United States conducts BSE tests on not quite the same ratio of cattle as Canada, and has been just as slow to implement feed bans and slaughterhouse reforms. The Americans have nothing to teach us on this file. But both countries have much to learn from the Europeans and Japanese. We should do so before it's too late.