

Risk Issue Chronicles, No. 5:
BSE Risk in Canada: Finally, the Penny Drops
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"One stinking cow,..."

Alberta Premier Ralph Klein, 14 July 2003¹

Here I contend that Canadian politicians have been misleading the public about the issues surrounding Japan's policy on continuing to refuse imports of Canadian beef. We have been told that Japan's policy is contemptuous of "science" and is unfair trade protectionism, and that the Japanese position is manifestly unreasonable. These are all, I contend, blatantly unfair claims. Our politicians and media commentators have not presented the issues fairly to us.

Canada's longstanding policy is to ban imports of beef from all countries "not known to be free of BSE." This ban includes some countries which have reported only a single case of the disease in their herds a full two years ago.

The bottom line is this: Japan's refusal to admit Canadian beef, following the discovery of a case of BSE in our country, is entirely consistent with the policy that Canada imposes on all other countries for its own beef imports. Thus our ridiculous complaints against Japan are simply a case of rank hypocrisy.

Until recently Canadian politicians, led by federal Agriculture Minister Lyle Vanclief and Alberta's premier, Ralph Klein, were engaged in a campaign of escalating rhetorical frenzy about Japan's policy of continuing to ban Canadian beef imports. The federal minister mused about retaliatory trade sanctions against Japan and implied that his Japanese counterpart, who met with him face-to-face in Ottawa, offered no reasons for Japan's

decision: “He wasn’t clear on his concerns, quite frankly,” Vanclief told our media.²

(Really? See below.) But, as might have been expected, Mr. Klein took the rhetoric prize with his challenge to Japan issued on July 14:

“I would offer a billion – well maybe five billion [dollars] to have a Japanese person come over here and eat nothing but Canadian beef for a year. If he gets mad-cow disease, we’d be glad to give him \$5-billion – well, make that \$10-billion. It ain’t going to happen.”

For the irrepressible Alberta premier, who once, during the Kyoto debates, speculated that the warmer climates prevailing in Alberta eons ago might have been caused by “dinosaur farts,” this is all about the dirty politics of international trade.

Is it? Have Canadian politicians and their bureaucratic servants been completely open and forthcoming about the issues associated with managing BSE risk around the world? Have the legions of outraged editorial writers in Canada’s national and regional newspapers, and their favourite industry-friendly academic experts, for all of whom this case is all about how wonderful our food regulatory system is, told us the whole story? The *Globe and Mail* ended its July 15 editorial with this statement:

It is difficult not to conclude that Japan is playing protectionist politics with food, as it has so often in the past. Canada is in no position to retaliate. For now the only alternative is to continue pressing the case with science and facts.

Ah, yes, “science and facts,” the new magical incantation in our politicians’ vocabulary, beloved equally by Minister Vanclief and Premier Klein.

I shall return to the religion of science, as it is used (and misused) by Canada and the U. S. in the international trade and regulatory arena. But first, a few elementary facts (called for by the *Globe and Mail*) might be helpful.

- As an aside, does anyone in Canada remember Brazil’s outrage over Canada’s ban on importing Brazilian beef products due to alleged BSE risk? (Our embargo was imposed in February 2, 2001 and not lifted until a full year later.³) This ban was imposed even though Brazil has never had a single case of BSE, down to the present day – curious, no?
- Canada currently has import bans – to control BSE risk – against beef from twenty-two countries.⁴ The Canadian Food Inspection Agency [CFIA] reports this country total, but I cannot find a complete list of such countries in any of the 197 documents in the BSE section on its website. Why is the entire list not readily available in any CFIA documents?
- Are Canadians aware that Japan has complained about a *de facto* Canadian ban on beef imported from Japan?⁵
- At no time in the entire controversy over Canada’s first case of BSE, which began on May 20 of this year, have Canadian officials discussed with the public why Canada should be dealt with differently from the way we treat other countries who are in the same boat.

Now, let’s look systematically at four key issues.

1. What is Canada’s policy on beef imports from other countries?

The only countries recognized by Canada as being free of BSE are: Argentina, Chile, Australia, Brazil (subject to special conditions), New Zealand, Uruguay, and the U.S.

[<http://www.inspection.gc.ca/english/anima/heasan/policy/ie-2001-17-4e.shtml>]. For

another 22 countries where BSE cases have been reported – *including (presumably) four countries other than Canada which have reported only a single case* – Canada maintains an

import ban on beef products.⁶ Here is Canada's policy: "A country is considered by

Canada to be free from BSE if ... for the preceding seven (7) years, the country of origin

must have reported no reported clinical cases of BSE in indigenous bovines."⁷ Have you

heard any Canadian politician or media commentator mention these awkward "facts"?

Here is the complete list of the 23 countries and total number of cases reported as of 17 July

2003, from the website of OIE (*l'Office international des épizooties*), the international agency

responsible for animal health issues [http://www.oie.int/eng/info/en_esbmonde.htm]:⁸

Austria	1 (2001)
Belgium	113 (1997-2003)
Canada	1 (2003)
Czech Republic	5 (2002-2003)
Denmark	10 (2000-2003)
Finland	1 (2001)
France	813 (1991-2003) [or 840]: http://vetolavie.chez.tiscali.fr/bse/details/graphfr/graphfr.htm
Germany	241 (2000-2003)
Greece	1 (2001)
Ireland	1,259 (1989-2003)
Israel	1 (2002)
Italy	86 (2001-2002: no reporting yet for 2003)

Japan	7 (2001-2003)
Liechtenstein	2 (1998)
Luxembourg	2 (1997-2002)
Netherlands	59 (1997-2003)
Poland	5 (2002-2003)
Portugal	772 (1994-2003)
Slovakia	12 (2001-2003)
Slovenia	3 (2001-2003, 1 per year)
Spain	299 (2000-2003)
Switzerland	432 (1990-2002: no reporting yet for 2003)

Special Case:

United Kingdom:

Over 183,000 cases (1987-2002), peaking in 1992, including 1,144 in 2002 (no reporting yet for 2003)

The other relevant statistics are the *annual incidence rates for bovines aged over 24 months* [http://www.oie.int/eng/info/en_esbincidence.htm], which takes into account the size of a nation's herd (and thus represents the proportion of diseased animals in it as reported each year), which of course varies greatly among the 23 nations listed above. The figures for Great Britain itself – all the figures are for 2002 – remain far higher than in any other country: 247.8 cases per million head of cattle aged over 24 months. The two countries with the next-highest rates are Portugal (107.80 per million head) and Ireland (88.39); by comparison, Japan was at 0.97. France, with the third-highest absolute number of cases (after England and Ireland) among all countries, was at 20.96 per million head.

Clearly, this terrible disease in cattle and other animals (notably elk, where it is known as chronic wasting disease) is still a matter of major international concern, and many nations – including Canada – have invoked the “precautionary principle” in responding to it. The orientation of Canada’s own established policy on this matter is crystal-clear: The incidence rate doesn’t matter. *Every country reporting even a single indigenous case of BSE (that is, a case not imported from another country) will have its beef exports proscribed for an indefinite period of time. Period. No exceptions.*

It doesn’t matter whether you are Great Britain, with an incidence rate in 2002 of 248 cases per million head, or Japan, with 1 case per million. It doesn’t matter if you are a country with only a single confirmed case in total, such as Austria, Finland, or Greece is, where the first and so far only reported cases occurred in 2001, with none thereafter. It doesn’t matter if you have only one case per year, as Slovenia does. All of these countries continued to remain on Canada’s list of countries “not known to be free of BSE,” to use the CFIA’s careful bureaucratic language.

In view of these “facts,” it would be interesting if some Canadian politician would care to explain to the public why Canada should be treated differently from all other countries which have had no more than one confirmed case. Just why does Canada think that it has

the right to be asking for special treatment for itself – in violation of its very own policy on BSE risk?

2. What is Canada's policy on importing beef from Japan?

Canada's crafty silence about its policy on Japanese beef imports was broken on July 14, when the Japanese embassy in Ottawa released a short paper entitled "Fact Sheet: Japan's Policy on BSE" [<http://www.ca.emb-japan.go.jp/BSEdoc.html>]. We read there:

Since the index [i.e., first] case of BSE was detected in Japan in September 2001, Japanese citizens have become increasingly aware of food safety, and accordingly the Government of Japan has taken thorough measures. In the wake of the index case in Japan in 2001, U. S., Australia, Canada and other countries suspended the imports of Japanese beef.

Then two enterprising CanWest reporters, the *Edmonton Journal's* Renata D'Aliesio and Michelle Lang of the *Calgary Herald*, pursued the story ("Japan defends prohibition on Canadian beef," *The National Post*, 16 July 2003, A6):

BSE has been found in seven Japanese cows. The government has adopted sweeping changes, banning the use of rendered beef in feed and testing every slaughtered cow destined for human consumption for the disease. Despite the measures, Canada has not lifted its ban on Japanese cattle and beef, introduced after the United States announced a ban. Ottawa's ban, which includes shipments of highly prized Japanese Kobe beef, could be a factor in Japan's reluctance to reopen borders to Canadian cattle, export officials said. "As a principle, they are wondering why Canada and other countries would want access to their market before they get access to our markets," said Ted Haney, president of the Canada Beef Export Federation.

Having read this story, I undertook a search for information about the reported Canadian “ban” on July 16, spending several hours looking through the BSE section of the CFIA website and using the site’s search engine. No result: So far as I can tell, there is no discussion of Canadian policy towards Japan’s beef on the CFIA website. In fact, in extensive searches carried out more widely on the Web, the only mention of Canadian action I found was an assertion in 2001 by a CFIA official that Canada would *not* enact a ban (Ian Bell, article in *The Western Producer*, dated 27 September 2001):

[\[http://www.producer.com/articles/20010927/news/20010927news05.html\]](http://www.producer.com/articles/20010927/news/20010927news05.html):

Last week, the U.S. banned all cattle and beef imports from Japan following reports of the suspected case of mad cow disease, or bovine spongiform encephalopathy. [CFIA official Claude] Lavigne said Canada will not follow the U.S. lead.... *Lavigne said Canada has never recognized Japan as free of mad cow disease, even though there was no evidence of the disease there until now* [emphasis added – WL].⁹

I could find no other information on this issue. Then Renata D’Aliesio published a follow-up piece in *The Edmonton Journal* on July 17, “No ban keeping out Japanese beef.” She wrote: “But there’s really no beef ban [against Japan], officials with Agriculture Canada and the Canadian Food Inspection Agency said Wednesday. They said Japan is free to send us beef in cuts of under 20 kilograms – just no live cattle.” The officials further explained that, because Japan has not signed a “meat inspection protocol” with Canada,

Japanese beef requires a special permit in order to be imported. (Just 263kg were imported into Canada in 2000, before Japan's first case of BSE.)

What is truly odd about these stories is that two senior Canadian officials, one from the Department of Foreign Affairs and International Trade, and one from the Canada Beef Export Corporation, *assumed that Canada did in fact have a ban on importing Japanese beef in place* when they were contacted on July 16 by reporters.¹⁰ And there is the clear statement from the Embassy of Japan in Ottawa: "In the wake of the index case in Japan in 2001, U.S., Australia, Canada and other countries suspended the imports of Japanese beef." There may be more to this tale in the coming weeks.

3. "Science" or "risk assessment"?

The newspaper coverage of Canada's BSE case is littered with references to "science" as the basis for Canada's position that all countries – but primarily the U.S. and Japan – should now re-open their markets to Canadian beef exports. Here are a few examples drawn from countless statements by Canadian politicians since May 20:

"It's frustrating to see an industry suffer the way the beef industry is suffering now and nations being so stubborn as to not accept the scientific evidence that says all is clear." (Ralph Klein)

"Some of the things they [Japan] are doing are ... not required by science. They may have done them for internal political consumer concerns but there is

absolutely no justification for them whatsoever.” And: “I’m frustrated that scientific data isn’t getting through to the world.” (Lyle Vanclief)

The Prime Minister “put emphasis on the importance of using scientific evidence to put a ban on or to lift it off,…” (Spokesperson for Jean Chrétien)

The information provided in Section 1 above, on Canada’s own policy on banning beef from other countries, helps us to put these statements in their proper light.

The “science” referred to repeatedly (but rarely specifically) by Canadian politicians is – presumably – the evidence from the culling and tracking investigation mounted after May 20. Secondly, it is the evidence from the subsequent slaughter and examination of about 3,000 head of cattle, as a result of which no other cases of BSE infection were found. This is the intensive investigation that was praised, quite justifiably, for its thoroughness by the foreign-expert team retained by CFIA, when they delivered their June 26 report [<http://www.inspection.gc.ca/english/anima/heasan/disemala/bseesb/internat.html>].

But the decision by Japan to maintain its ban on importing Canada’s beef is a policy choice, not a scientific judgment – exactly the same kind of policy choice that Canada has made on beef imports for many years. In *both* cases that choice is based not on scientific evidence *per se*, but rather on a risk assessment, which takes such evidence into account and then tries to estimate the probabilities of encountering future problems. The risk assessment is an expert judgment that is supposed to tell you, for example: What is the probability that, if

one case is found, there will be others? And here is the expert judgment on that point from the leader of the team retained by CFIA, Switzerland's former chief veterinary officer, Dr. Ulrich Kihm: "The risk is there that [having found an index case] you will find a second or third case, or even more. I'm estimating that there will be other cases in this part of the world [i.e., North America].... You have to implement a proper surveillance system in order to detect that."¹¹ Canada has not done so, in the opinion of the experts hired by CFIA. So what are we whining about?

Canadian politicians' appeal to science is a rhetorical device, representing "science" as a kind of trump card to be used when nations disagree about food safety. This rhetorical move carries the implicit notion that our own side follows faithfully the rational guide of scientific discovery, whereas one's opponents are being irrational. Indeed, none other than Premier Klein uncovered the implication and made it public: "[Japan] is a race of people who are highly intelligent ... yet they are consumed by this unwarranted fear that this one cow that has been taken out of the food chain will somehow infect their population."¹² But this dispute has nothing to do with whether the Japanese people are more or less rational than Canadian politicians are. It is not about science, but about risk management.

"Science" is, for example, what tells you there is a connection between BSE in beef and new-variant CJD in humans. Science is what tells you that it is probably an unfortunate

genetic anomaly that puts some people who eat infected beef at higher risk of contracting the human disease than others are.¹³ The science of prion diseases is also, of course, one of the bases of the risk assessment for BSE in a nation's cattle herd. But the risk assessment also includes many other factors that are not strictly scientific – for example, an estimation of the probability that animal feed infected with BSE will enter the cattle feed chain despite the fact that our country and others prohibit this practice.

FDA regulations in the U.S., similar to Canada's, require that animal feed products containing rendered ruminant (cattle) parts be labeled, "do not feed to ruminants." In 2001 the FDA found that 20% of such products sold by feed mills to farmers did not carry the required warning label, and as of July 2003 the FDA reported new actions taken against a Seattle-based animal feed producer found to be in violation of these regulations.¹⁴

The risk assessment also tells you how likely it is that you will find a case of BSE in your nation's cattle herd, based on what percentage of heads from slaughtered cattle are examined in a laboratory for evidence of the brain-wasting disease. This is called the surveillance program. As noted above, the Swiss expert who headed Canada's international review panel was quoted as saying that if you find one case you probably have more. This is why experts would tell you to take the numbers in the OIE table (above)

with a grain of salt. For example, the numbers from Italy are almost certainly too low, that is, it's very likely there are more actual cases than have been reported by that country.

To date Canada – and the United States – have operated what can be described as a passive or minimalist surveillance program (see below). This is the real crux of the current stand-off between Japan and Canada: Japan simply does not trust our surveillance program. Remember the reference at the beginning to Minister Vanclief's assertion that Japan hasn't been clear about its concerns? Rubbish. Here is what Japan's agriculture minister Yoshiyuki Kamei said to Vanclief directly: "I asked that Canada set up a strict system of inspection as in Japan," Kamei told reporters, indicating he asked Vanclief that all cows in Canada be inspected."¹⁵ Unfortunately, that quotation can only be found in a Japanese news agency source: It's not in any of the dozens of Canadian press reports I've examined.

What about Canada's risk assessment for BSE in our cattle? Here is a summary of CFIA's formal risk assessment, which carries a date of 2003-05-01 (that is, about 3 weeks prior to the belated discovery of the first Canadian case):

1. "quantitative risk estimate of the likelihood of at least 1 infection of BSE occurring in Canada prior to 1997 is very low (7.3×10^{-3});
2. "therefore the likelihood of BSE becoming established is **negligible**;
3. "risk is further reduced by the mitigating measures that have been in place since 1997."

<http://www.inspection.gc.ca/english/anima/heasan/cahcc/cahcc2002/dcac-app-a-e.shtml>

The full document from which the number comes is: “Risk Assessment on Bovine Spongiform Encephalopathy in Cattle in Canada, Part C: Risk Estimation.”¹⁶ Three comments on this document must suffice for now:

1. 7.3×10^{-3} , which is a little more than 7 chances out of one thousand, is described as the risk of finding “at least one infection” in the entire Canadian cattle herd for all of the period prior to 1997. This estimation is based largely on the calculating the number of imported cattle from the United Kingdom, for the years 1979-97, which was quite low, and the possibility that they would have entered the animal feed chain when slaughtered and rendered. No uncertainty ranges are given for the multiple parameters on which the estimation is based. But of course this calculation for the pre-1998 period is by now all a moot point.
2. The CFIA’s pre-1998 QRA displays some fancy mathematics. Yet NO similarly calculated quantitative risk assessment at all is given for the period after 1997!
3. In other words, as of May 1, 2003, Canada didn’t have a clue as to what the probability was of finding a case of BSE in its cattle herds. So there is no basis for our telling other countries that Canada is currently managing BSE risk within acceptable parameters.

In summary: This is a dispute between Canada and Japan not about the science of prion diseases, but about the way how different countries assess the risk for BSE. As noted below, the Japanese have by far the better argument on this score.

4. Canadian risk management for BSE (surveillance, animal feed).

Trouble has been brewing for Canada’s beef industry for many years, during which both political and industry leaders followed the well-known three monkeys’ routine (“hear no evil,…”). The bottom line is, Canada – with a \$30 billion annual beef industry to protect –

has been appallingly lax in its policies designed to minimize BSE risk. In more technical language, we have been insufficiently precautionary, by a wide margin, in response to the *economic risk* represented by BSE. The argument in support of this case was well-argued by Andrew Nikiforuk in a newspaper column on May 29.¹⁷

Ironically, on February 20 of this year Peter Comrie, chair of the technical committee of the Canada Beef Export Federation, warned his members at their annual meeting that “the EU considers Canada a risk for mad cow disease and is expected to add more import restrictions....”¹⁸ The reasons for this are twofold: In two key dimensions – animal feed and surveillance – Canada’s policies to control BSE risk have been seriously deficient. There were abundant warnings on this score, all ignored. Now the international expert panel has told Canada to change these policies, and the federal Minister has said he will comply. Too late. Also, he hasn’t said when.¹⁹ That’s another complaint from Japan: “The Japanese government has not received the details of the measures for BSE, and when the Canadian government will take the measures,” said Yutaka Kawano, the agriculture officer at Japan’s embassy in Ottawa on July 15.²⁰

1. Animal-feed policy.

Like the U.S., Canada chose in 1997 to adopt a limited ban on rendered ruminant material in animal feed products: such material (except for blood, milk, and fat) could not be used

in animal feeds for ruminants, but could be included in other animal feeds, such as those for poultry and pigs. Over the intervening years many warnings have been issued about the inadequacy of the North American policy. The excess risk represented in this policy choice was summed up recently by another Swiss expert:

“There is no other known route of transmission [other than animal feed]. Ruminant feed can still end up in other cattle feed even if it is not on purpose. It’s accidental contamination that cannot be prevented if it’s produced in the same feed mill. If your first batch is non-cattle and you have meat and bone meal in there, in the beginning of the next batch you will have cross-contamination. You end up with ruminant protein in the ruminant batches even if it was not intended.”²¹

The availability of this feed leads to other risks: (1) faulty labeling by producers, as noted earlier; (2) accidental misuse of feed on farms; (3) intentional (knowing) misuse on farms.

What this all means is that Canada’s policy of permitting continued use of ruminant material in some animal feeds *substantially increased the risk* of cattle being fed this material – the only known route of transmission for BSE. The inadequate risk assessment performed by CFIA for the post-1997 period does not try to estimate this risk.²² As other commentators have argued, our regulatory officials and our industry have been far too complacent about BSE risk.²³ That will change now, but the price our beef industry and the Canadian economy will pay for that complacency will be a very steep one indeed.

2. Surveillance.

This whole issue started badly for Canada, when it was revealed that Alberta's provincial laboratory took almost four months to deliver results for the cow head which ultimately tested positive for BSE.²⁴ But as it turns out, this was not the worst of our problems. The perspective from Europe was summed up as follows: "The US and Canada test so few animals that low levels of BSE infection would not be detected."²⁵

Last year Canada slaughtered 3.6 million cattle and tested 3,377 for BSE, a surveillance rate of under .001 (one per thousand).²⁶ Japan currently tests *every* slaughtered cow destined for human consumption. Why do more tests? The EU concluded some years ago that, in every country where more active surveillance programs were introduced, more cases of BSE were found, without exception. The Swiss expert Marcus Doherr put it bluntly: "There must be more cases [in Canada]. For every case we detect, we estimate there were three to five animals exposed."²⁷

Canada's entirely inadequate passive surveillance program has over the years *substantially increased the risk* that we have missed other cases of BSE in our cattle herd – as the EU's risk assessment concluded. That's why the EU categorized us as a Category II country for BSE risk in July 2000, one where "it is unlikely but cannot be excluded that domestic cattle are (clinically or pre-clinically) infected with the BSE-agent."²⁸

5. Conclusions.

At the very outset of Canada's BSE troubles columnist Don Martin wrote in *The Calgary Herald*: "It's not that solitary mad cow that has put Alberta's beef industry at stake.... The chances of just one cow becoming uniquely infected by the disease from one feeding trough, or arriving in Alberta as a single-case import from somewhere else, are laughingly, alarmingly remote."²⁹ That's still a pretty good summary of the informal risk assessment for BSE in Canada.

Three conclusions may be drawn from the foregoing discussion:

First: The only known route of transmission for BSE is through the animal feed chain. The incomplete ban in the U.S. and Canada on ruminant material in animal feed is, presumptively, the reason why our "index case" occurred in northern Alberta: this cow was given infected feed at some point in its life, either accidentally or otherwise. Therefore, unless some better explanation is forthcoming, it was a failure of Canadian policy that led to the index case of BSE in Canada.

Second: Canada's surveillance program for BSE is seriously deficient. As a result, this country has no basis for assuring the world that we have had but "one stinking cow" with BSE. Independent expert opinion suggests that, under the conditions prevailing in Canada

since 1997 (animal-feed and surveillance policies), it is highly likely that there are or have been some additional cases. Canada has not taken the trouble to perform a quantitative risk assessment for BSE risk in the post-1997 period, so we have no basis to dispute this expert conjecture.

Third: Whatever the actual BSE risk is in Canada, it is Canada's own policy to exclude all imports of beef from countries "not known to be free of BSE." Canada excludes beef from some countries which have had only one reported case of BSE. Therefore we have no basis for arguing that other countries should now re-open their borders to Canadian beef.

The fact that since 1997 Canada has been far less precautionary than it should have been in protecting its beef industry is a hard lesson for all of us. Among other things, we failed to distinguish clearly – and to manage effectively – the two quite different risks associated with BSE in cattle. (I leave aside for now the animal welfare issue.) One is the *human health risk*: Here, it is reasonable to say that Canadians should have no concern about risks to their own health from consuming Canadian beef. (Many Canadians might wish that Premier Klein had extended his \$10-billion wager to them!) Even if a few more cases have gone undetected, as the Swiss experts have conjectured, there would still be no cause for concern on this score: There just aren't enough infected animals to raise the probability of a Canadian case of nvCJD above the level of truly negligible risk.

But there is another risk that we didn't manage at all well, namely, the *economic risk* to our beef industry and to the larger economy. Canada's own policy of embargoing beef from countries with even one reported case of BSE should have tipped us off to the great risk we were running on this score. There are tragedies to Canadian families and businesses now unfolding which will take a high toll, especially on farm families, who have been battered over recent years with difficult challenges issued both by nature and our trading partners.³⁰ The embargoing of Canadian beef is another blow. U.S. commodities traders are betting that the American border will remain closed for the next few months, as reflected in sharply rising prices for cattle futures.³¹ *Unfortunately, it is likely that others' borders will remain closed to our beef for the foreseeable future, perhaps for years to come.*

What can we do? First, the undignified whining and pleading has to stop. We are not going to receive special treatment from our trading partners, nor do we deserve it. Our only recourse is to seek a new international consensus on collective action – but we must recognize that it will take years to achieve this, if it can be done at all. Canada will have to go to the OIE and other international bodies and request a period of negotiation, leading towards a new policy for all countries importing beef.³²

This policy would cover *all* beef-exporting countries which have reported small numbers of indigenous BSE cases and which then have implemented a series of specified measures

designed to reduce the risk – to negligible levels – that further cases will occur. An international inspection routine will have to be established, for verification and certification that the measures have been implemented appropriately. The agreement would specify that, once a country has fully complied with the requirements of these measures, its beef exports would again be welcomed on world markets.

Admittedly this would be a lengthy process, and it could involve substantial increases in costs for exporting nations. My guess is that no lesser remedy will suffice.

The websites identified in this article were accessed July 16-18, 2003

¹ Speech to a meeting of the Pacific NorthWest Economic Region, as reported by Kate McNamara, *The National Post*, 15 July 2003, A4.

² Quoted in an article by Joe Paraskevas, "Japan refuses to lift import ban on beef," *The Ottawa Citizen*, 13 July 2003, A3.

³<http://www.inspection.gc.ca/english/corpaffr/newcom/2001/20010223e.shtml>: Here are the conditions imposed by Canada on Brazil as a condition of our lifting of the ban:

Upon reviewing the data, the tripartite countries were assured that Brazil has taken sound measures to prevent BSE and that the suspension on imports should be lifted. There are three conditions that imports of Brazilian beef products must meet to enter the respective countries:

1. shipments must be certified as containing beef products from cattle that were born and raised in Brazil and not from any imported sources of beef;
2. the beef must come from cattle born after Brazil enacted its 1996 ruminant-to-ruminant feed ban; and
3. shipments must have a statement accompanying them that certify the cattle used in the products were exclusively grass-fed and not fed any animal proteins.

Most interesting: Are Canadian beef cattle "exclusively grass-fed"?

⁴ <http://www.inspection.gc.ca/english/anima/heasan/disemala/bseesb/bsefaqe.shtml>:

Canada does not import commodities which are known to pose a risk of BSE from any country not known to be free of BSE, including Germany, France, Portugal, Denmark, Spain and Italy which recently declared cases of BSE. Canada only allows the importation of live ruminants and their meat and meat products from countries free of BSE. Canada also has additional import controls in place for other animal products and by-products from countries which have confirmed BSE in native animals.

There is no complete list of such countries in any document on the CFIA website. Why not?

⁵ See Section 2 for a discussion on this point. That there may be a *de facto* rather than a *de jure* Canadian ban on Japanese beef is suggested the remarks by CFIA official Claude Lavigne, made just after the imposition of the U.S. ban on Japanese beef in September 2001: "Lavigne said ... [that CFIA] is able to screen for imports of cattle and beef from Japan through its permit process. The agency hasn't had any permit requests of that nature involving Japan." (Article by Ian Bell, *The Western Producer*, 27 September 2001.) In other words, Japan has not requested import

permits because it is aware of Canada's general policy (see further below), banning imports of beef from any country having even a single reported case of BSE.

⁶ I have to infer that this is the case because I cannot find a list of such countries in any CFIA document. So one has to infer that the list is the one maintained by OIE (see the following pages in the text). The U.S. FDA lists 34 countries as either having reported cases of BSE or as "considered to have a substantial risk associated with BSE" (May 2003):

These countries are: Albania, Austria, Belgium, Bosnia-Herzegovina, Bulgaria, Croatia, Czech Republic, Denmark, Federal Republic of Yugoslavia, Finland, France, Germany, Greece, Hungary, Ireland, Israel, Italy, Liechtenstein, Luxembourg, Former Yugoslavia Republic of Macedonia, The Netherlands, Norway, Oman, Poland, Portugal, Romania, Slovak Republic, Slovenia, Spain, Sweden, Switzerland, Japan, and United Kingdom (Great Britain including Northern Ireland and the Falkland Islands).

Canada has recently been added to this list of countries from which imports are restricted. <http://vm.cfsan.fda.gov/~comm/bsefaq.html>

⁷ "Canadian Bovine Spongiform Encephalopathy (BSE) Import Policies. Last Revised June 16th, 2003," <http://www.inspection.gc.ca/english/anima/heasan/policy/ie-2001-17-4e.shtml>. The alternative conditions are that any cases are non-indigenous, i.e., imported from another country. This is OIE "category 1" status (see further note 32).

⁸ Only "indigenous" cases are counted in my totals; in other words, cases in animals that were imported from another country, which are counted separately by OIE, are excluded. I have added up the totals, since the grand total for each country is not given on the OIE table.

⁹ Why would M. Lavigne make that last comment? The answer lies in one of the most disgraceful episodes in the entire history of the BSE episode: Britain's export of infected feed to 80 countries the world, including many in Asia, between 1980 and 1996. (Article by Debora MacKenzie, "Have contaminated feed exports spread BSE across the globe?" *New Scientist*: <http://www.newscientist.com/hottopics/bse/bse.jsp?id=22771200> (10 Feb. 2001). The following quotation is from the briefing to UK Agriculture Minister John Gummer by one of his civil servants in July 1989:

There has been criticism about the fact that we continue to permit the export of meat and bone meal even though it is banned from use in ruminants in this country. However it has been emphasised that importing countries have been made fully aware about BSE and its probable cause and it is, therefore, up to them to decide whether to import and under what conditions.

The BSE Inquiry (London, 16 vols., 2000), vol. 10, p. 70.

¹⁰ Editorial writers at *The National Post* also appear to believe it: “And a handful of infections in Japan itself set off a major panic [in 2001] (which caused various nations, including Canada, to embargo Japan’s niche beef products).” 17 July 2003, A13.

¹¹ Article by Kim Lunman, “Expect more BSE, expert says,” *The Globe and Mail*, 10 June 2003, A9.

¹² Cited in an article by Shawn McCarthy and Daniel Leblanc, “Chrétien pressures Japanese over beef,” *The Globe and Mail*, 2 July 2003.

¹³ <http://www.eurocjd.ed.ac.uk/lancet5.html>; see also http://www.mrc.ac.uk/txt/index/public-interest/public-press_office/public-press_releases_2001/public-14_may_2001.htm

¹⁴ <http://www.fda.gov/bbs/topics/NEWS/2003/NEW00924.html>; <http://seattlepi.nwsourc.com/business/cows26.shtml>.

¹⁵ Kyodo News, July 13, 2003, “Japan rejects request for early lifting of ban on Canada beef”: <http://asia.news.yahoo.com/030713/kyodo/d7s8bcdg3.html>

¹⁶ [<http://www.inspection.gc.ca/english/sci/ahra/bseris/bserisce.shtml>]

¹⁷ Andrew Nikiforuk, “Our beef is with bureaucrats,” *The Globe and Mail*, 29 May 2003, A21.

¹⁸ Barry Wilson, “Beef exports up, but clouds loom,” *The Western Producer*, 20 February 2003. The EU prepared a risk assessment of BSE in Canada in mid-2000 [http://europa.eu.int/comm/food/fs/sc/ssc/out131_en.pdf].

¹⁹ The first set of changes have been announced (Patrick Brethour, “Tough rules in works for mad-cow testing,” *The Globe and Mail*, 18 July 2003, A1, A7) – but Canada still has a long way to go.

²⁰ Article by Renata D’Aliesio, “Show us the mad cow plan, Japan says,” *The Edmonton Journal*, 16 July 2003.

²¹ Quotations from Marcus Doherr, veterinary epidemiologist at the University of Bern, Switzerland, as quoted by Alan Freeman, “Ban dangerous feed, experts say,” *The Globe and Mail*, 29 May 2003, A8. The CFIA risk assessment (note 14) includes elaborate calculations on the cross-contamination risk, of course; again, uncertainties are not identified and quantified.

²² The CFIA subjected its risk estimation to external peer review, and the reviewers asked some tough questions about the animal feed policy. But the CFIA’s essential complacency about BSE risk is evident in one of the agency’s answers to the peer reviewers: “However, there is a negligible likelihood of BSE in Canada. There is, currently, no scientific evidence showing that blood products represent a significant risk. Accordingly, the CFIA has not banned the use of

blood meal as a protein source for ruminants.” [<http://www.inspection.gc.ca/english/sci/ahra/bseris/revexae.shtml>]

²³ Two excellent articles (both from the *Toronto Star*) are: Sandro Contenta, “Canada can learn from U.K. errors,” 24 May 2003; Stuart Laidlaw, “Complacency is real killer in mad cow,” 26 May 2003.

²⁴ The delay was in part due to closing of provincial labs and in part to the mysterious Alberta policy of assigning a higher priority to the testing of elk: Deborah Yedlin, “Meat testing backlog created by cutbacks,” *The Globe and Mail*, 23 May 2003:

http://www.globeandmail.com/servlet/ArticleNews/TPStory/LAC/20030523/RWEST_2/TPBusiness/TopStories

²⁵ Debora MacKenzie, <http://www.newscientist.com/hottopics/bse/bse.jsp?id=23970300>, “BSE crosses the Atlantic,” *New Scientist*, 31 May 2003.

²⁶ In 2001 Canada had 12.4 million head of beef cattle: *Risk Assessment on Bovine Spongiform Encephalopathy in Cattle in Canada, Part A: Evaluation of Risk Factors*, Section 3 and Table 1 [<http://www.inspection.gc.ca/english/sci/ahra/bseris/bserisa1e.shtml#A3>]

²⁷ Quoted by Charles Gillis, “Canada told to start mass mad-cow tests,” *The National Post*, 3 June 2003, A7 (on Doherr, see note 21).

²⁸ “Report on the Assessment of the Geographical BSE-Risk (GBR) of Canada,” Part II, page 33 [http://europa.eu.int/comm/food/fs/sc/ssc/out131_en.pdf]. See generally D. Heim & U. Kihm, “Risk management of transmissible spongiform encephalopathies in Europe” (2003): <http://www.oie.int/eng/publicat/rt/2201/11.%20Heim.pdf>

²⁹ “Is industry in safe hands?” *The Calgary Herald*, 21 May 2003, A1, A2.

³⁰ See the story of Donna and Bryan Babey, whose small cattle herd in Lloydminster, Sask. was taken away for slaughter, in Charles Gillis, “Lessons not learned,” *The National Post*, 31 May 2003, A9.

³¹ Patrick Brethour, “U.S. traders’ beef ban bet fires up cattle futures,” *Report on Business*, B1, *The Globe and Mail*, 18 July 2003.

³² See: http://www.oie.int/eng/normes/mcode/a_00068.htm for the OIE’s “Terrestrial Animal Health Code 2003,” article 2.3.13.2 and following. (Renata D’Aliesio of *The Edmonton Journal* called my attention to these OIE policy statements.) The OIE has the following categories: (1) “BSE free country or zone,” (2) “BSE provisionally free country or zone,” (3) “Country or zone with a minimal BSE risk,” (4) “Country or zone with a moderate BSE risk,” (5) “Country or zone

with a high BSE risk.” By my reckoning Canada currently falls in OIE category 4, although if no other indigenous cases are found, it *could* fall squarely into category 3 – but not before the year 2005.

Category 3 (“minimal BSE risk”) applies to countries where

... the last indigenous *case* of BSE has been reported less than 7 years ago, and the BSE incidence rate, calculated on the basis of indigenous *cases*, has been less than one case per million during each of the last four consecutive 12-month periods within the cattle population over 24 months of age in the country or zone ... and: i) the ban on feeding ruminants with *meat-and-bone meal* and *greaves* derived from ruminants has been effectively enforced for at least 8 years;... (article 2.3.13.5)

Since our feeding ban went into effect in 1997, we could not be admitted into category 3 until 8 years thereafter. Also, I maintain that, contrary to what federal government officials contend, Canada does *not* have in place an appropriate risk assessment for BSE, since our quantitative risk estimation (see note 16) does not extend to the post-1997 period.

However, in order to re-open its export markets under this classification, Canada would still have to modify its own import policy (note 4 above), stipulating that *all* countries qualifying for an OIE category 3 status would be exempt from the designation, “countries not known to be free of BSE.”