Position Paper

on the

Inadequacy of Canada's BSE Surveillance Program

Prepared by R-CALF USA

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Available facts are inconsistent with repeated claims by the United States Department of Agriculture (USDA) that Canada's bovine spongiform encephalopathy (BSE) risk is "low" or "minimal." The facts are also inconsistent with claims suggesting that Canada has an appropriate BSE surveillance program to both determine the prevalence of BSE in its native cattle herd as well as to monitor the effectiveness of Canada's BSE risk mitigation measures.

I. Canada Has Decreased Its Testing for BSE Following the January 2005 Detections of Two Additional BSE Cases in its Native Cattle Herd

Reports by the Canadian Food Inspection Agency (CFIA) indicate that the Canadian government's reaction following the country's latest discoveries of BSE in early January was to substantially decrease the number of Canadian cattle per month being tested for BSE. The CFIA reports that Canada tested 6,861 and 7,088 Canadian cattle for BSE during the months of November 2004 and December 2004, respectively.[1] In early January 2005, Canada confirmed two additional cases of BSE in its native cattle herd, bringing the total number of confirmed positive BSE cases in Canadian-origin cattle to four. Immediately following these recent discoveries, Canada substantially decreased the number of cattle it tests, averaging only 5258 cattle tested per month during each of the months January, February and March.[2] At this slow rate of testing, even a relatively large BSE problem may remain hidden for many months or years. Canada has not yet tested a sufficient number of cattle to confidently detect a rate of one case of BSE per million cattle[3], and yet four cases have already been detected, suggesting a BSE prevalence rate significantly higher than 1 per million.

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[1] BSE Enhanced Surveillance Program, Sample Status and Test Results, Canadian Food Inspection Agency, available at http://www.inspection.gc.ca/english/anima/heasan/disemala/bseesb/surv/surve.shtml, downloaded on April 8, 2005.

[2] *Source: Id.*

[3] *Source:* Testing and Sampling Information, Canadian Food Inspection Agency, available at http://www.inspection.gc.ca/english/anima/heasan/disemala/bseesb/surv/sampe.shtml#col, downloaded on April 8, 2005. *See also*: Analysis of Risk – Update for the Final Rule: Bovine Spongiform Encephalopathy; Minimal Risk Regions and Importation of Commodities, Animal Plant Health Inspection Service - USDA, Veterinary Services, December 2004, at 7. *USDA states that Canadian officials have stated that Canada must test 30,000 animals per year in order to detect one case of BSE in one million adult cattle.*

In contrast, the United States continues to test at the rate of over 45,000 cattle per month, but has never detected BSE in its domestic herd.[4] (Statistically, the detection sensitivity of a testing program is driven by the number of cattle tested per month, not the size of the herd.) Canada would have to double its testing rate, then double it again, then double it yet a third time to reach parity with the U.S. in the level of scrutiny being given to cattle to protect consumers and the cattle industry against BSE – and yet, all BSE found in North America has originated in Canada. The U.S. has already exceeded its plans to test 268,500 domestic cattle judged most likely to exhibit BSE if the disease were present – high-risk cattle. According to USDA, if 268,500 samples were tested from the targeted population of 446,000 high-risk U.S. cattle, and if no positives were found, then the U.S. could state that it was 99 percent confident that there were less than 5 positive animals in the target population.[5] As of April 11, 2005, the U.S. has already tested well over the 268,500 head of cattle, as it had conducted tests on 314,394 of the 446,000 cattle targeted for testing, with no cases of BSE detected. At its recently slowed-down rate of testing, it would take Canada approximately (268,500/5258) = 51 months to achieve the same level of inspection (i.e., number of cattle tested) that the U.S. achieved by the first quarter of the year.

R-CALF USA, beginning in 2003, has urged the USDA to require Canada to substantially increase, not decrease, its BSE testing so that a scientifically valid estimation of the BSE prevalence in Canada can be determined, rather than continuing to allow the true rate to remain hidden by the world's slowest testing program. R-CALF USA challenges USDA's assertion that Canada's BSE *prevalence* rate is low (although its *testing* rate, and hence the total number of cases revealed so far, is extremely low compared to testing rates in all other countries) in R-CALF USA's lawsuit filed against the USDA on January 10, 2005. In Apparent agreement with R-CALF USA's concern that available facts are inconsistent with a conclusion that the BSE prevalence in Canada is low, even USDA's attorney acknowledged during the March 2, 2005 preliminary injunction hearing that, indeed, the cattle population in Alberta, Canada, "is a high-risk population."[6]

This lack of adequate BSE testing coupled with multiple detections of BSE makes the conclusion that Canada's BSE problem is "low" or "minimal" (in any policy-relevant sense) implausible. In addition, Canada's decision to reduce BSE testing after finding recent BSE cases suggests that adequate testing may not be forthcoming.

II. Canada's BSE Surveillance Program is Several Orders of Magnitude Inferior to the BSE Testing Programs of all Other BSE-affected Countries

Comparing Canada's BSE testing program to the testing programs of all other countries affected by BSE shows that Canada is lagging far behind internationally accepted surveillance practices, implying Canada's testing rate is so low that the four BSE cases discovered so far under severely limited testing cannot be considered low. For example, the international testing practice of every

[4] *Source:* BSE Test Results, Animal and Plant Health Inspection Service – USDA, available at http://www.aphis.usda.gov/lpa/issues/bse_testing/test_results.html, downloaded on April 8, 2005.
[5] USDA BSE Surveillance Plan: Background on Assumptions and Statistical Inferences, available at http://www.aphis.usda.gov/lpa/issues/bse/BSEOIG.pdf, downloaded on April 8, 2005.
[6] R-CALF USA vs. USDA, Transcript of Hearing on Application for Preliminary Injunction, at 57.

other BSE-affected country following detection of BSE in their native herds is to begin a mandatory testing program that includes either (a) all high-risk cattle over the age at which the tests are meaningful or (b) cattle subject to normal slaughter, or both. The EU, including the UK, continues to test *all* cattle over 30 months of age entering the food chain in addition to mandatory testing of all high-risk animals over a certain age.[7] Japan, tests *all* cattle entering their food chain.[8] Switzerland tests all high-risk cattle over 30 months of age along with 7000 cattle entering the food chain under normal slaughter.[9] Israel requires testing of *all* slaughtered cattle over 30 months of age.[10] Thus, Canada's testing program falls far short in all respects to the testing programs of every other country in the world that is known to be affected by BSE (with the possible exception of Liechtenstein, for which information is unavailable).

Canada is the only BSE affected country in the world that does not have a mandatory BSE testing program. Canada's testing program is weaker than the testing programs of all other BSE-affected countries in several respects, including:

- Canada does not test a sufficient number of cattle to enable a confident, science-based estimate of its current BSE prevalence rate;
- Canada does not require the testing of all high-risk cattle, and
- Canada does not require testing of cattle subject to normal slaughter.

As a result of Canada's inadequate testing, it is statistically highly likely that additional BSE-positive cattle exist in the Canadian herd, but are not being detected.

Table 1 compares Canada's testing program and that of other BSE-affected countries reporting fewer than 30 cases of BSE since 2003. It illustrates the inadequacy of Canada's surveillance program and the testing gap between Canada and other countries.

[7] *See* BSE-New State of Play, Activities of the European Union, Regulation (EC) No. 999/2001, available at: http://europa.eu.int/scadplus/leg/en/lvb/f83002.htm.
[8] *See* Final Report, Japan-United States BSE Working Group, July 22, 2004.
[9] *See* Control Measures in Cattle, SFVO Control Measures, BVET, OVF, UFV, available at: http://www.bvet.admin.ch/tiergesundheit/00199/00200/00665/index.html?lang=en.
[10] *See* Emergency Report, The Director General, OIE, June 6, 2002, available at: http://agri3.huji.ac.il/%7Eyakobson/bseEN/bseOIE020604EN.htm.

Table 1. Surveillance Programs of BSE Countries Reporting Fewer than 30 Cases of BSE Since 2003

Country	Adult Cattle Population[11]	High-Risk Cattle Tested Per Year[12]	Cattle Subject to Normal Slaughter Tested[13]	Total Cattle Tested Per Year[14]	No. of BSE Cases Reported Since 2003[15]
Canada	5,500,000[16]	23,550	None reported	23,550[17]	4
Denmark	834,000	37,332	250,558	289,702	3
Slovenia	214,000	11,357	54,751	66,167	3
Slovakia	287,000	21,805	65,192	87,010	9
Japan	2,040,500[18]	*See Note 18*	*See Note 18*	881,700[19]	16
Netherlands	954,000	65,943	439,403	506,325	25
Belgium	1,424,000	34,988	356,184	392,465	26
Poland	3,175,000	26,873	428,452	455,413	27

Table 1 reveals both the inadequacy of Canada's testing program when compared to international BSE surveillance practices as well as the inappropriateness of estimating Canada's BSE incidence rate based on Canada's adult cattle population. Canada's testing data is simply insufficient to accurately estimate Canada's BSE prevalence, but the data that is available when contrasted with other countries that have tested far more cattle, suggests that Canada's BSE prevalence cannot be characterized as low. This deficiency is particularly obvious when comparing the number of BSE tests conducted as a percentage of each country's adult cattle population. This chart reinforces R-CALF USA's call for Canada to begin testing hundreds of thousands of cattle, including cattle subject to normal slaughter, so that a meaningful and scientifically valid estimate can be made regarding how widespread the BSE problem is in Canada. Until and unless Canada takes this action, the entire world remains in the dark as to what level of risk Canadian beef and cattle present.

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[11] *Source for all countries other than Canada:* Report on the Monitoring and Testing of Ruminants for the Presence of Transmissible Spongiform Encephalopathy (TSE) in the EU in 2003, Including the Results of the Survey of Prion Protein Genotypes in Sheep Breeds, European Commission, 2004, available at http://europa.eu.int/comm/food/food/biosafety/bse/annual_report_tse2003_en.pdf, downloaded on April 8, 2005.

[12] *Id.*

[13] *Id.*

[14] *Id.*

[15] Number of Reported Cases of Bovine Spongiform Encephalopathy (BSE) in Farmed Cattle Worldwide (Excluding the United Kingdom), Office International des Epizooties (OIE), available at http://www.oie.int/eng/info/en_esbmonde.htm, downloaded on April 11, 2005.

[16] Federal Register, Vol. 70, No. 2, January 4, 2005, at 468.

[17] BSE Enhanced Surveillance Program, Sample Status and Test Results, Canadian Food Inspection Agency, results for calendar year 2004, available at http://www.inspection.gc.ca/english/anima/heasan/disemala/bseesb/surv/surve.shtml, downloaded on April 7, 2005.

[18] *Source*: Report of Livestock, as of February 1, 2002, Preliminary Statistical Report on Agriculture, Forestry and Fisheries, The Ministry of Agriculture, Forestry and Fisheries of Japan, available at http://www.maff.go.jp/esokuhou/2002_p11.pdf, downloaded on April 7, 2005. The breakdown between high-risk cattle tested and cattle tested at slaughter is unavailable.

[19] *Source:* Final Report, Japan-United States BSE Working Group, July 22, 2004, at 2. *Japan has tested 3,159,408 cattle from October 18, 2001 through May 8, 2004. The number of cattle tested annually was estimated for a 12-month period based on the testing rate during this period – a rate of approximately 73,475 cattle per month.*

III. Available Data Suggests Canada's BSE Prevalence Rate is Too High to be Considered a Minimal Risk

In its lawsuit against the USDA's plan to re-open the U.S. border to Canadian beef and cattle, R-CALF USA's disease risk assessment expert, Louis Anthony Cox, Jr., Ph.D, estimated that:

> ". . . test results to date suggest a possible true BSE prevalence rate greater than about 5.5 cases per million head of cattle. This is the same order of magnitude as the BSE incidence rate found in countries considered to have a serious BSE problem, such as France and Germany. Moreover, unlike those countries, there is no historical trend in BSE testing results in Canada to indicate that the rate of BSE infection in the Canadian herd is decreasing."[20]

The OIE precludes countries from being classified in its minimal BSE risk category that have a prevalence rate of two cases per million head of cattle. Even if a country met all of the other OIE criteria for a "minimal BSE risk" country (which Canada does not), a country must also have found BSE prevalence at a rate of less than two cases per million head of cattle in the national herd during each of the last four consecutive 12-month periods to qualify as a minimal BSE risk.[21] Based on the available data, and on Dr. Cox's analysis of that data, it appears that if Canada conducted adequate testing, the BSE prevalence rate that testing would reveal would not meet this OIE criterion for minimal BSE risk.

R-CALF USA recommends that Canada begin testing hundreds of thousands of cattle on an annual basis, rather than only the tens of thousands as Canada is proposing, as the only means by which Canada can conclude that its prevalence rate is not as high as those of countries considered to have a serious BSE problem.

IV. Canada Has Not Heeded the Scientific Community's Call for Increased Testing

In 2004, USDA convened a team of scientists in response to the detection of a Canadian-origin cow with BSE in the state of Washington, This scientific team is known as the International Review Team (IRT). The IRT recommended, unsuccessfully, that testing be conducted on "all cattle older than 30 months" that show signs of BSE, that die on the farm or in transport, and cattle for emergency slaughter, including all downer cows.[22] These subpopulations of cattle are determined to be of highest risk for BSE. Canada has not adopted these recommendations. Nor has the U.S. required Canada to adopt these recommendations as a precondition to allowing imports of Canadian cattle, including the IRT recommendation that random samples of healthy cattle over 30 months should be tested.[23] This IRT recommendation is consistent with the OIE

[20] Declaration of Louis Anthony Cox, Jr., Ph.D, R-CALF USA vs. USDA, January 2005.
[21] Terrestrial Animal Health Code, 12th edition – 2004, Chapter 2.3.13, Article 2.3.13.5 (2) (b).
[22] Report on Measures Relating to Bovine Spongiform Encephalopathy (BSE) in the United States (International Review Team Report), February 2004.
[23] *Id.*

recommendation that countries with Canada's risk profile not only increase testing, but also, that such countries begin testing the subpopulation of cattle that enters the human food chain.[24]

In addition, the OIE clearly establishes the scientific basis for Canada, now with four positive BSE cases under very limited testing, to significantly increase its surveillance program. The OIE states that "[s]urveillance programmes generate a picture of the epidemiological situation of animal TSE [Transmissible Spongiform Encephalopathy]. The greater the surveillance effort, the greater the power of the information."[25]

V. Conclusion

Careful analysis of the available BSE data from Canada shows that Canada's testing program is patently inadequate for quantifying the prevalence of BSE in Canada and for informing rational risk management decision-making in either country. It does not follow scientific principles espoused by USDA's scientists, by international scientists convened by USDA, or by the international disease standard-setting body of the WTO – the OIE. Moreover, Canada's surveillance program is far less intense than the testing programs of other BSE-affected countries. Until and unless Canada begins a statistically meaningful surveillance program of the Canadian cattle herd, the United States and every other importing country will lack crucial scientific data needed to assess the risk of accepting beef and cattle from Canada.

[24] Terrestrial Animal Health Code, 12th edition – 2004, Appendix 3.8.4.1, Article 3.8.4.4., "In countries not free from BSE, sampling at routine slaughter is a means of monitoring the progress of the epizootic and the efficacy of control measures applied, . . ."
[25] Terrestrial Animal Health Code, 12th edition – 2004, Appendix 3.8.5, Article 3.8.5.7.