

Animal Health, Food Safety and the Information Requirements - the Case of BSE in Canada

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Information Requirements

Statistical agencies are clearly not responsible for animal health and food safety. Protecting the health of citizens from food borne illness and establishing food safety procedures and regulations is the role of other government departments. Once a food borne illness or animal disease has been identified and traced however, the statistical agency can play a role in providing timely measures of the impact on the economy and of consumer confidence in the government's response and efforts to protect human health.

A food safety crisis, resulting from diseases that can be transmitted from animals to humans, such as, bovine spongiform encephalopathy (BSE), or mad cow disease, can be described and measured relatively quickly using basic statistical information that is readily available to government economists and statisticians. There are exceptions, but most national agriculture and food information systems have been designed to assist governments to manage the unexpected as it relates to food supplies, food prices and food safety. This includes the associated and undesirable social and economic consequences (Bonnen, 1975). The basic requirements are for data on production, inventories, domestic sales, imports, exports, and prices.

This article is an attempt to show that some basic aggregate agricultural statistics on imports, exports, livestock slaughter, farms sales of cattle, farm product prices for cattle and calves, and consumer prices for meat can provide timely insights on an issue such as the impact of the trade embargo on the Canadian beef industry following the discovery of a single case of BSE.

The Crisis

The discovery of a single reported case of BSE, on May 20, 2003, led to an immediate ban on all exports of Canadian beef. In August 2003, the United States and a number of other countries announced that they would accept boneless beef from animals under 30 months of age.

Canadian farmers were just getting their hopes up that the border would also be opened to the export of live cattle and calves when the United States announced on December 23, 2003 that a dairy cow in Washington State had tested positive for BSE. The origin of this dairy cow was traced to Canada.

Prior to May 20, 2003, Canada was the world's third biggest meat exporter accounting for about 15% of the world market and surpassed by only Australia (23%), and the United States (16%)¹.

One in three Canadian farm families derived at least half of their agricultural sales from the sale of beef cattle and calves. In 2002, farm cash receipts from cattle and calves totalled \$7.7 billion or 21% of the total \$36 billion farm cash receipts.

The Canadian industry produces 60% more beef than the domestic market can absorb. The Canadian cattle herd soared to a record 14.7 million head as of January 1, 2004, according to the January 2004 Livestock Survey, a direct consequence of the prolonged export embargo on cattle and calves. Beef producers had 1.2 million or 8.7% more head of cattle on their farms than they did on January 1, 2003.

Beef Markets and the Trade Rules

Agriculture and food products are in a special category when it comes to World Trade Organization (WTO) rules. The collision of trade interests and of measures to protect against products that may be carrying diseases have resulted in the Sanitary and Phytosanitary Agreement (SPS). This agreement allows countries to impose import controls under Article XX of the WTO, to protect the life of humans, plants or animals.

Most phytosanitary import regulations provide legitimate protection against the spread of plant and animal diseases and against the import of products that might threaten consumer health. Phytosanitary controls help protect consumers from, for example, salmonellosis-contaminated meat and poultry products, deaths from food borne illness caused by *E. coli* O157:H7 in cooked ground beef, and the risk of Creutzfeld-Jacob disease to humans from eating beef from cattle with BSE. Over time however, a number of these import controls have been used as disguised trade barriers and numerous formal complaints have been taken to the WTO for resolution.

National phytosanitary standards are based on scientific principles and supported by scientific evidence but governments are under a great deal of domestic pressure to toughen standards following each food scare, and securing international agreement for common phytosanitary standards has become a major stumbling block.

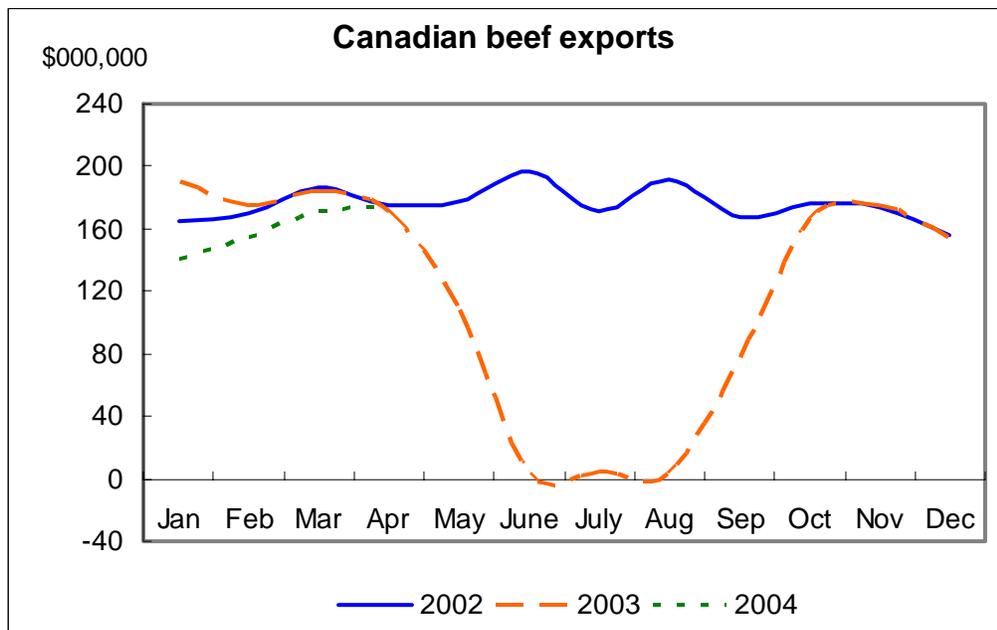
Beef exporters adjusting to new marketing conditions

Canadian beef industry exports prior to May 20, 2003 consisted of \$1.8 billion worth of cattle and calves and \$2.2 billion in beef products. Total cattle and calves and beef (meat) exports were \$4 billion in 2002, the equivalent of \$11 million in sales per day. Following the ban in May 2003 exports fell to zero for the months of June, July and August 2003. As soon as the ban was eased, however, exporters were quick to adjust to the new trade conditions and the first boneless beef shipments left Canada on September 10, 2003.

HACCP (Hazard Analysis, Critical Control Points) quality assurance systems are still voluntary in Canada, but many Canadian meat processors have implemented HACCP systems. Those systems were instrumental in obtaining the necessary approvals and permits to ship boneless beef by September 10, 2003, allowing Canadian packers to quickly regain their U.S. beef markets.

Exports of meat began to recover in September, and by December 2003 monthly beef exports were almost equal to those of December 2002. In December 2003, companies exported \$150.3 million worth of boneless beef, marginally lower than the \$156.5 million in December 2002 for all beef products.

Exports of beef during 2003 are however, well below levels in 2002. Canadian companies exported \$1414.0 billion worth of meat in 2003, 33% below the value of \$2108.4 billion in 2002.



Source: International Trade Division, Statistics Canada

There is also still no export market for Canadian live cattle and calves. Prices remain depressed by an oversupply of slaughter animals under 30 months of age and Canada cannot export the meat from all the surplus animals because Canadian beef processors lack the capacity to slaughter the cattle and calves that were exported as live animals. As a result, calf prices remain low; the market for cattle over 30 months in age has collapsed; and the meat rendering industry has suffered cutbacks.

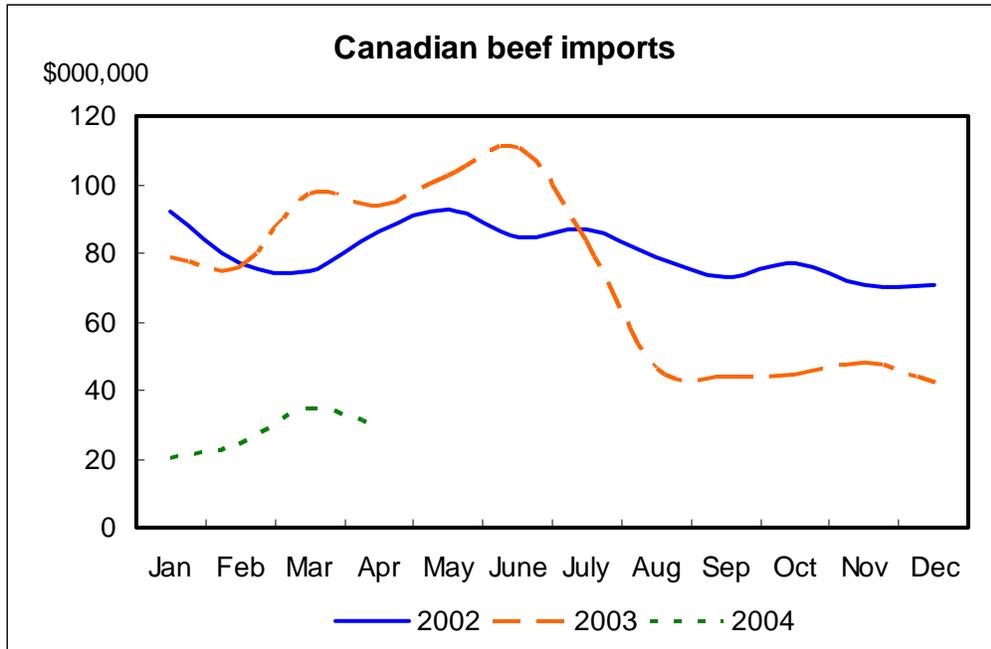
Beef Imports Drop Sharply

Canada could not shut the door on beef imports to help offset the domestic oversupply that built up after the world closed the door on Canadian exports. Notwithstanding the export ban, Canada was obliged under international agreements to continue to allow red meat and livestock imports into the country.

Under the North American Free Trade Agreement, there is no restriction on the import of red meat and livestock from the United States, Mexico and Chile. As a member of the World Trade Organization (WTO), Canada is also obliged to accept negotiated quantities of beef from WTO countries.

Prior to May 20, 2003 beef imports represented approximately 30% of the beef consumed in Canada, a substantial proportion of the Canadian domestic meat supply.

Monthly imports of beef peaked in June 2003 then fell sharply throughout July and August. In June alone, companies imported \$110.8 million worth of beef, up 8% from May. Importers arrange import shipments some time in advance of the date that they require the goods. It is, therefore, likely that the contracts for the imports recorded in June were concluded long before the export ban was imposed on Canada.



Source: International Trade Division, Statistics Canada

The June increase might also reflect importers' efforts to anticipate a consumer preference to substitute imported beef for domestic meat. This would have mirrored the consumer reaction in Japan and the United Kingdom following the identification of BSE in those countries. If that was the case, it was an unnecessary precaution, as Canadian consumer demand did not falter.

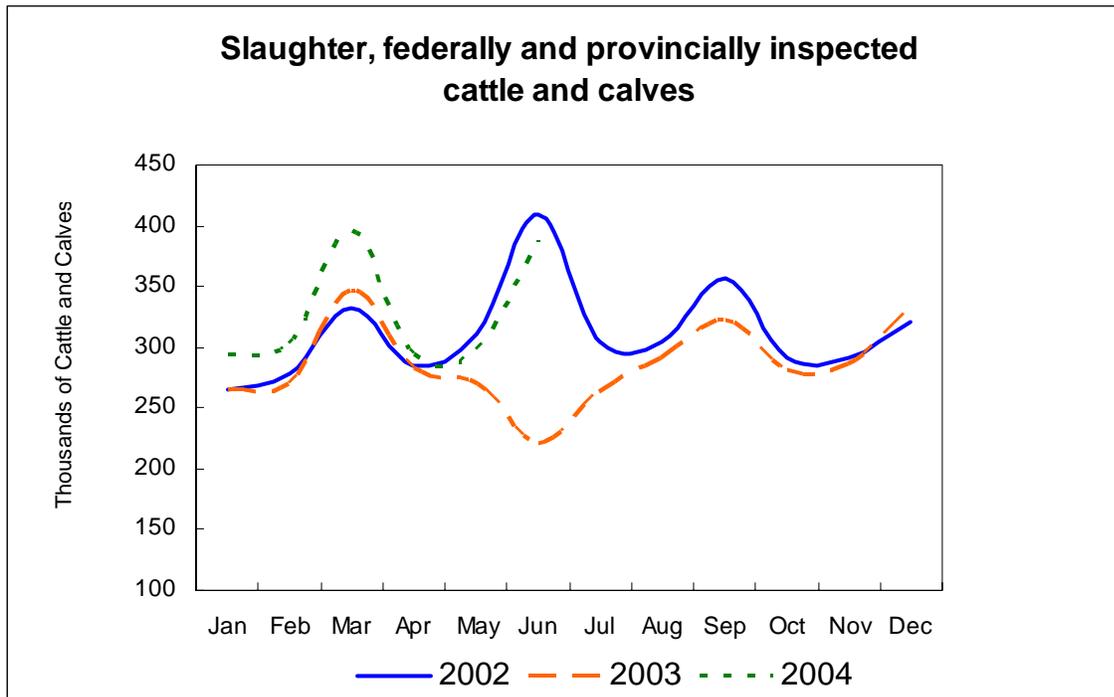
Meat imports have experienced sharp declines since July 2003. Canadian importers are hard pressed to find a foreign beef suppliers able to compete with the quality and prices offered by Canadian meat processors. The general oversupply of beef and low cattle prices in Canada, the record retail beef prices in the United States, and the strong global demand for beef, have all dampened the demand for imported beef.

Slaughter Hits Record Levels

In the four months prior to May 2003, domestic cattle slaughter was slightly ahead of levels during the same period of 2002. The impact of the export embargo on Canadian beef and live

cattle was immediate and dramatic. Canadian slaughter fell 22% in June. Slaughter levels for the rest of 2003 were below those of the previous year.

The initial government support programs for the cattle and beef industry brought Canadian slaughter back close to pre-ban levels. Slaughter began to recover, increasing each week until the first week in September.



Source: Agriculture Division, Statistics Canada

Overall, cattle slaughter in 2003 as a whole amounted to almost 3.4 million head, down 9% from the nearly 3.7 million head the year before. As might be expected, the embargo on beef exports initially caused a backlog in the slaughter of feeder animals and an increase in the average weight of the animals going for slaughter.

Average slaughter cattle weights remained high throughout most of the summer and into the fall of 2003. This indicated that producers had some difficulty in marketing their cattle when they were ready for slaughter, and were having to keep and feed them longer than usual.

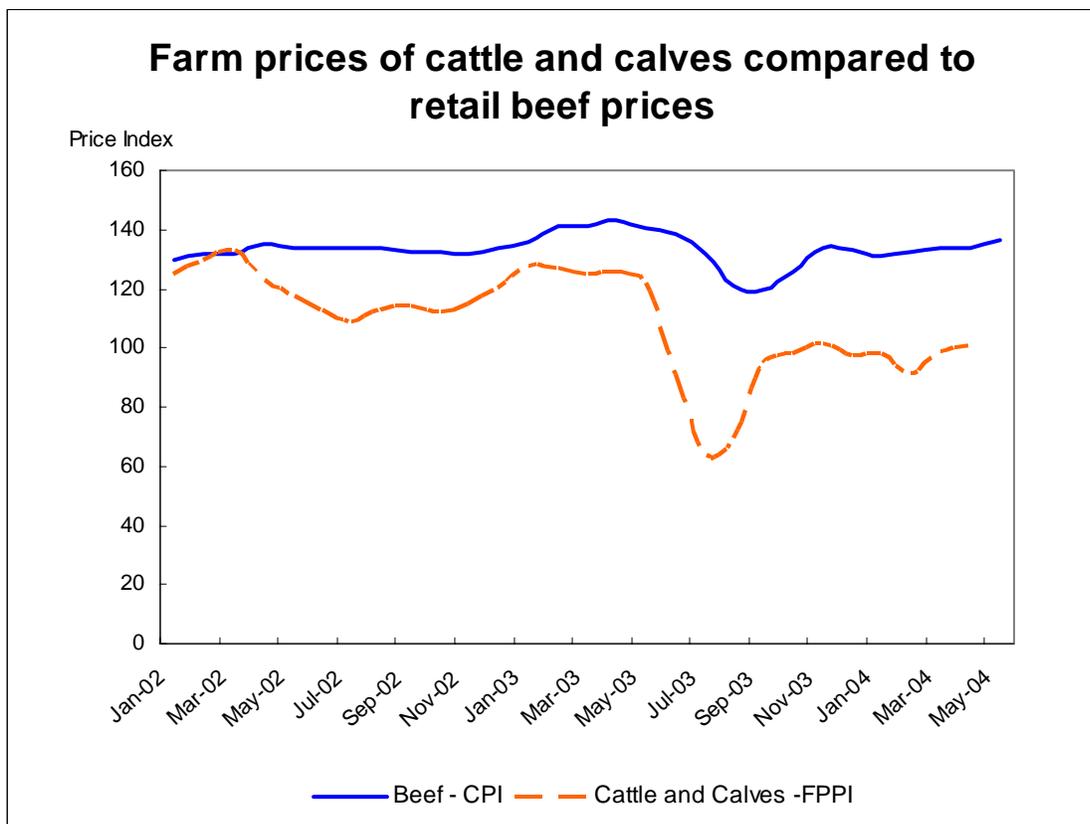
Slaughter between January and April 2004 was well above slaughter in the same period in 2002 and 2003. May 2004 saw monthly slaughter return to the levels of 2002, numbers still well above the early post-BSE levels of 2003. If the BSE crisis has any silver lining, it may be increased industry interest in expanding Canadian slaughter and processing capacity.

Retail Prices Fail to Match Cattle Price Declines

Consumers did see a drop in the price of beef at the retail level. However, the decline amounted to less than half of the drop in cattle prices.

The price of cattle and calves dropped almost 50% between May and July 2003, as measured by Statistics Canada's Farm Product Price Index (FPPI). By August 2003, there was some recovery in the prices for cattle sold for slaughter, particularly for animals under 30 months of age. Prices for older animals, mainly culled cows, collapsed.

According to the Consumer Price Index, retail beef prices did decline 14% between May and September 2003, reaching their lowest levels since January 2001. But this decline was far short of the 50% drop in cattle prices.



Source: Prices Division and Agriculture Division, Statistics Canada

Retail beef prices began to rebound in September. Retail beef prices in December were about 6% lower than prices prior to the May 2003 export embargo. Beef producers mounted a national campaign to encourage food retailers to reduce prices for beef and veal and increase meat consumption. Consumers never did see substantive decreases in retail beef prices and it will still be some time before it can be determined whether Canadians ate more than the 2002 average of 31.1 kilograms of beef per person.

The embargo on the export of live cattle and calves, and the restrictions on the exports of beef products had an impact on the prices of other livestock. Farm prices for poultry, largely produced under supply management, remained stable, but Canadian prices for pigs fell between July and December 2003 according to the FPPI. Farm prices for pigs began to recover in January 2004 and by March 2004 pig prices were back to pre-BSE levels.

Implications and Conclusions

Food safety is an important element of food security, consumers irrespective of where they live; want access to a safe and secure food supply. Governments are under a great deal of domestic pressure to apply increasingly tougher quality assurance standards following every food scare, and consumers take strong exception to those that challenge their national standards.

Food scares can have devastating impacts on food production systems. Industries, such as the Canadian beef industry, that are heavily export oriented are particularly vulnerable. Agricultural production systems are not easy to shut down or restart. Live animals and perishable fresh produce cannot be stored away and sold at a later date when market conditions improve. Even when consumer confidence can be quickly restored, the immediate income losses are substantial and the economic recovery lengthy.

In the case of export products, particularly live animals and fresh produce, the imposition of phytosanitary import regulations to protect against the spread of plant and animal diseases can take time to remove. In many cases the time required to remove the barriers exceeds the painful production adjustments being made among the export producers, and in the end, they may abandon that particular market and leave it to their competitors.

The statistical agency, while not responsible for animal health and food safety, can play an important role in providing timely measures of the impact on the economy, and of consumer confidence in the government's response and efforts to protect human health.

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