Meat Traceability and Consumer Assurance in Japan

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Executive Summary

Japanese consumers are sophisticated, highly conscious of food quality and safety, and willing to pay for attributes they believe define a high-quality, safe product. A recent series of domestic and international food safety crises have elevated the importance of meat safety among Japanese consumers. The Japanese government and food industry are implementing new policies and systems intended to assure consumers that the food supply is safe and wholesome. Given that these systems tend to focus heavily on consumer assurance programs and traceability, this paper examines the demand for such programs from the perspective of Japanese meat importers, processors, and retailers. The paper discusses Japan's recent history of food safety crises, some of the consumer assurance programs already in use in retail outlets, the potential demand for assurance programs for imported products, and the ability of U.S. and other exporters to provide such assurances.

Keywords: consumer assurance programs, food safety, Japan, product differentiation, red meat exports, traceability.

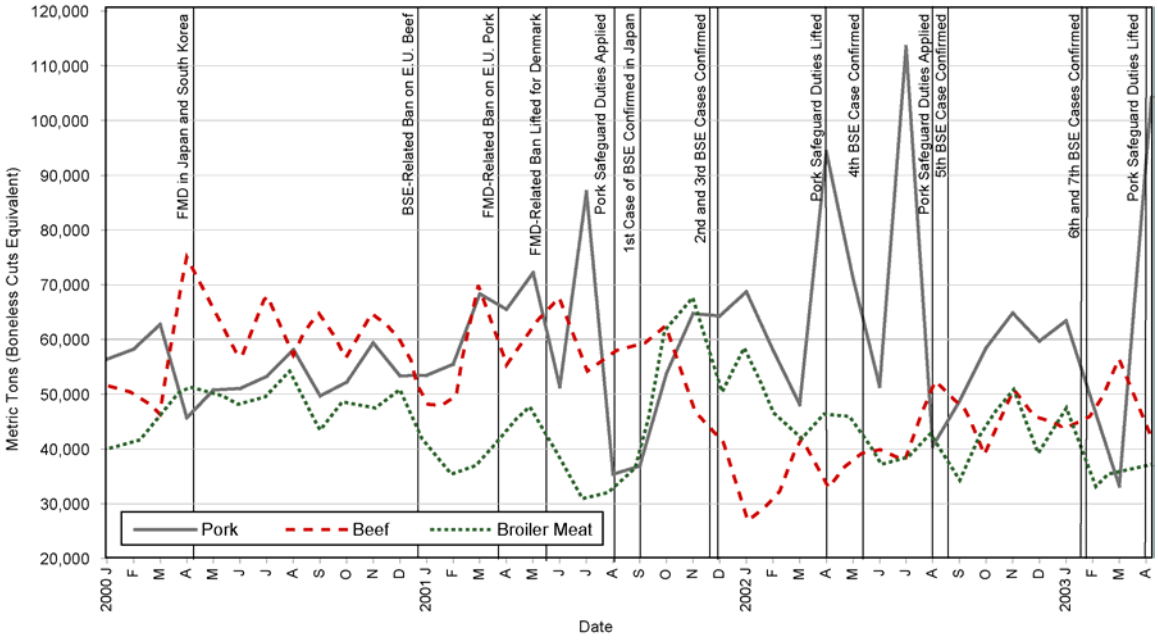
MEAT TRACEABILITY AND CONSUMER ASSURANCE IN JAPAN

Introduction

Over the past several years, Japanese consumers have reacted strongly to a series of food safety crises that have occurred both domestically and in other countries. These crises, coupled with agricultural policies intended to protect Japan's domestic producers and enhance food self-sufficiency, have created erratic trade flows for imported products. One of the most extreme food safety crises occurred when a case of bovine spongiform encephalopathy (BSE), or "mad cow" disease, was diagnosed in a domestic cow in September 2001. Many food industry experts credit the discovery of BSE with an enduring change in consumer demand and perceptions about food safety. As a result, the Japanese government and food industry are attempting to find new ways to assure consumers about the safety and wholesomeness of the domestic food system and regain consumer trust in the regulatory system and individual food products. Some of these changes will affect imported meats.

Prior to being informed that BSE existed in the domestic herd, Japanese consumers were subjected to the same intense media coverage of BSE-infected cattle in the European Union that U.S. consumers saw, including the footage of a cow suffering the effects of the disease. As one industry member noted, the image of the afflicted animal seemed to be shown on newscasts "always at dinnertime." Given this image of the disease in cattle and the reported link between BSE and variant Cruetzfeld-Jakob Disease in humans, Japanese consumers were understandably concerned when the first case of BSE was confirmed in the domestic herd.

Figure 1 shows total Japanese beef, pork, and poultry meat imports since 2000. After the report of BSE in a domestic animal, Japanese beef consumption immediately dropped by as much as 50 percent. Imports declined from 62,105 metric tons (mt) in October 2001 to a low of 27,888 mt in January 2002. Pork and broiler meat imports increased as consumers replaced beef with seafood, pork, poultry, and non-meat sources of protein.

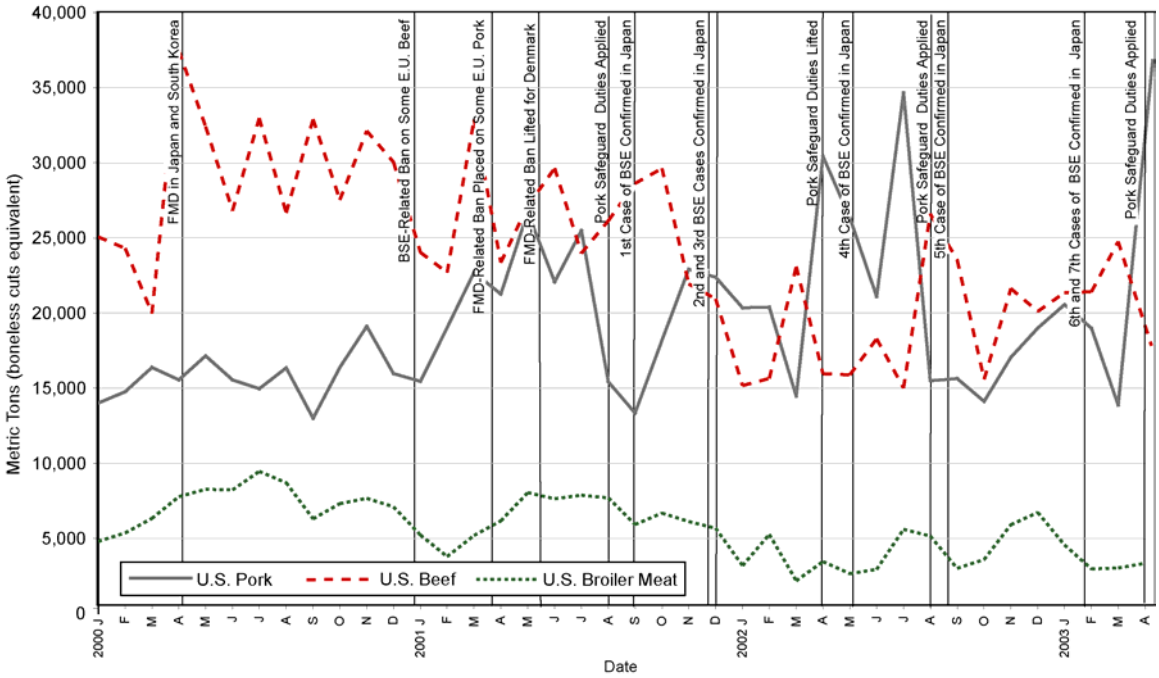


Source: Import volumes are from Agriculture and Livestock Industries Corporation.

FIGURE 1. Japanese imports of beef, pork, and broiler meat relative to confirmed cases of BSE in the domesic herd

The BSE crisis was followed by a series of labeling scandals linked to some of the largest and most trusted food companies in Japan. Recently legislated food-labeling requirements backfired as the revelation of widespread mislabeling schemes further undermined consumer confidence. Especially damaging to the meat industry were instances in which some companies labeled imported beef as domestic beef in order to collect government compensation during the BSE crisis. As the public realized that mislabeling was neither new nor limited to the meat industry, consumer confidence in the ability of the Japanese government and domestic food companies to guarantee the source and safety of products throughout the food system was severely damaged.

The reports of food mislabeling, additional cases of BSE, and higher duties from triggering of the pork safeguard created additional market swings. Figure 2 shows the effects of the combined market events on imports of U.S. beef, pork, and poultry meat. Early 2003 data indicate that Japanese beef consumption had recovered to between 5 and 10 percent of pre-BSE levels. As shown in Figures 1 and 2, a possible case of BSE in the



Source: Import data is from Agriculture and Livestock Industries Corporation.

FIGURE 2. Japanese imports of U.S. beef, pork, and broiler meat relative to animal disease and policy events

domestic herd in February 2003 did not cause a discernable change in overall markets. Imports of beef, pork, and poultry meat may have returned to levels that are more normal, but the food industry must continue to address the loss of consumer trust and confidence.

Given their shared experience with BSE, it is not surprising that the Japanese government consulted with E.U. officials about the problems and solutions associated with a domestic outbreak of the disease. As a result, the Japanese government and food industry have adopted parts of the European post-BSE model to alleviate consumer fears and rebuild consumer confidence in the safety of the food supply. Unfortunately, some of these assurance programs tend to blur consumer understanding of differences between marketing programs intended to assure consumers that food is safe and science-based systems that actually enhance food safety. Some assurance programs are based on traceability, which will create additional costs that will be difficult to recover and ultimately could reduce the competitiveness of some segments within the supply chain, including livestock producers. On the other hand, failure to invest in the labor

and technology required to respond to importers' demand for traceability or other programs may result in a loss of markets to competitors.

In addition to meat safety issues, the Japanese economy has played a major role in changing the nature of meat consumption and trade. Over the past several years, Japan's extended recession has created a more price-conscious Japanese consumer. Industry participants throughout the supply chain are seeing smaller margins and are paying very close attention to their bottom lines. Japanese consumers are more willing to consider lower-cost product alternatives than they had been in the past, and many importers are actively seeking the lowest-cost suppliers. As will be discussed, the need to trim costs is clashing with the goal of responding to consumer demand for quality and safety assurances. Unfortunately, the economic situation in Japan is not expected to improve over the short term.

This paper discusses some of the ways that the Japanese government and industry are responding to consumer demand for assurances of safe food in the wake of BSE and mislabeling scandals and how these changes might affect U.S. beef and pork exports. The information in this paper is based heavily on information obtained during meetings with Japanese meat importers, processors, retailers, restaurant operators, government officials, and other experts within Japan's meat supply chain during the Iowa Department of Economic Development's Japan Meat Mission in April 2003.

Emerging Legislation

The International Organization for Standardization defines traceability as the "ability to trace the history, application, or location of that which is under consideration." For a product, "traceability can relate to the origin of materials and parts, the processing history, and the distribution and location of the product after delivery" (Codex Alimentarius Commission 2002, p. 4). For livestock, traceability has emerged as a way to track animal movements and identify cohorts in case of a disease outbreak or food-related problem and a way to track an animal's lineage to improve herd genetics. Traceability also has emerged as a marketing tool to assure Japanese (and other) consumers about the source of the meats they purchase.

In July 2002, Japan enacted the Law Relating to Special BSE Countermeasures. This law requires mandatory traceback for cattle from the feedlot to the packing plant. The

Japanese government regulates the system. Cattle producers are required to place an ear tag on each animal showing an individual identification number. Producers must then submit data for each animal, including its identification number, breed, sex, and details of its production history (e.g., date of birth, date transferred to a feedlot) to be entered into the "family register" of the entire domestic herd.

According to a recent report from Japan, the Japanese herd numbers 4.5 million cattle. About 1.5 million head are born each year and about 1.5 million are sold for meat or die. In addition, approximately 1 million animals are transferred between farms, including shipments of calves. These totals mean that, on a daily basis, about 4,110 head are born, about 4,110 head are sold for meat or die, and about 2,700 head are transferred between farms. As a result, Japan's Individual Livestock Data Control Center receives about 25,000 communications per day from producers (*Japan Agrinfo Newsletter* 2003). Japanese officials expect that the traceback system will be fully implemented within two years.

In early 2003, the Japanese government proposed several new laws that would require an even stronger traceability system. The Beef Traceability Law would require traceability from production through "distribution to consumption." Consumers would be able to obtain this information over the Internet. The Ministry of Agriculture, Forestry, and Fisheries is formulating another regulation that would require that producers keep records of feed use and feed suppliers. The ministry also proposed new laws that would further regulate feed manufacturers to prevent cross-contamination between cattle feed and feeds for other livestock and poultry. Several other proposed regulations would affect segments of the livestock industry, such as legislation concerning the assurance of food safety, fertilizer regulation, controlling infectious diseases in animals, and revised HACCP (Hazard Analysis and Critical Control Point), feed safety, and food sanitation laws.

Industry sources contend that few Japanese beef producers are keeping the necessary records to provide information about an animal's rations and medication history and that oversight and enforcement of such complete systems will be difficult. Many industry experts do not believe the Japanese government will be able to enforce effectively mandatory traceback from supermarket to producer. The Japanese government historically has

been relatively lenient with the domestic industry, but it remains to be seen whether such practices will continue once the new Food Safety Commission is operational.

Country-of-origin labeling is mandatory at retail outlets, but the Japanese government does not require traceability for imported meats. A proposal was brought before the House of Councilors in May of 2003 to require such traceability but it was withdrawn from consideration. Some industry experts contend that meat exporters never will be required to provide traceability. However, most experts agree that traceability will play an increasingly important role in the Japanese livestock and meat industries. Domestic pork is on the government's list of foods under consideration for traceability legislation.

Companies in a position to provide traceability information for meat products reportedly are attracting a lot of interest from Japanese supermarkets and other end users. Industry experts believe that U.S. exporters with traceability systems already in place might do very well in Japan now because so few suppliers have implemented such systems. Whether Japan legislates traceability requirements for imports may not matter, especially for supermarkets and higher-end restaurants because these end users may require the information from their suppliers. Importers note that they have already begun initiatives with North American, Australian, and New Zealand beef suppliers, and some importers report that they plan to develop initiatives for pork with companies in the United States, Canada, and Mexico.

Story Meats

Japanese consumers have been critical of the government's role in handling the BSE crisis, and media reports of food labeling scandals continue. In response, the government is developing a new Food Safety Commission, but consumers remain skeptical about the commission's potential effectiveness. In the meantime, supermarkets have taken on the role of assuring consumers about food safety and quality. In a culture where a company's reputation is of greater concern than is litigation over a food safety issue, supermarkets are staking their reputations on providing safe food. Advertising campaigns and in-store promotions are directed at providing assurances that emphasize safe, tasty, healthy, anxiety-free products.

The issue of traceability at the retail level is largely one of marketing to "make the consumer feel good." Many Japanese supermarkets are following the path that E.U. supermarkets took in attempting to fill the gap in consumer confidence over the government's ability to protect the safety of the food supply and assuring consumers that their store can provide the safest food with the most desired consumer attributes. Full traceability systems have been implemented, at least in part, as a way to differentiate food products and create a sense of trust that helps ease consumer anxiety over purchasing decisions. The goal is to gain a competitive edge over retailers who do not have similar assurance systems in place.

One assurance method that some supermarkets are implementing provides the consumer with the story of how the meat they are considering for purchase was produced. Japanese consumers tend to believe that if the person who produced a food product is willing to put his or her photo and name on the product, then that product is safer than a comparable product without such information. Retailers are responding to this belief by providing such information in a variety of ways.

Jusco supermarkets (Aeon Company, Ltd.) have implemented one of the most comprehensive consumer assurance systems for beef available in Japanese supermarkets. Consumers are assured of the security and flavor of high-value, domestic Wagyu beef products. Under this system, a computer is available in the meat sales area so customers can obtain the story behind the beef cuts they intend to purchase (see Photo 1 in the Appendix). Customers enter a 10-digit code from the product label for individual meat trays into the computer, and three types of information about that specific cut appear. First, consumers can read and print out a copy of the official BSE testing certificate for the animal from which the cut was harvested. In addition to stating that the animal tested negative for BSE, the certificate shows the date of slaughter, species, breed, sex, slaughter number, name of producer, carcass number, unique identification number, and date. This certificate, which the government issues, also identifies the name and address of the packing plant and the name of the meat inspector. It includes an official stamp and a statement that the meat was delivered to the Aeon Company.

Second, consumers can read and print out a production record certificate that traces the beef product's harvested animal back to birth. This certificate includes the animal's

unique identification number, the shipping date, ear tag number, slaughter date, and processing plant to which the animal was delivered for slaughter. Production information includes the name and address of the producer delivering the animal for slaughter; the animal's breed, sex, and place of birth; the name of the producer to which the calf was born; the date the animal entered the feedlot; the name of the market from which the calf was purchased; and the fact that the animal was fed a mixed-grain ration. This certificate also states that the meat was delivered to Aeon Company and contains an official stamp.

Finally, the consumer can see a photograph of the producer who delivered the animal to the slaughter plant. Japanese consumers equate such a photograph with "knowing" the producer and feel more comfortable with the safety of the product. According to Jusco officials, the beef supplier (slaughter plant or processor) is responsible for providing the appropriate paperwork to the Aeon Company, which then enters and stores the data. In practice, a 100-gram package of thinly sliced meat on the store shelf was attributed to between three and five different animals, all fed by the same producer. This story-meat site also is accessible from the customer's home computer so that the information can be accessed after the meat is purchased.

Media coverage of the Jusco system was so extensive that supermarkets did not have to advertise its installation in the store. However, once the novelty of using the system wore off, consumers almost completely stopped using the computers. Despite the current low usage, a store representative noted that just having the system in place makes customers feel better because the information is available if they want it. This consumer response pattern is similar to the experience in the European Union, where anecdotal evidence suggests that consumers have stopped using similar systems in E.U. supermarkets but nonetheless do not want the computers to be removed.

Providing a story for meats has been a successful marketing tool for Jusco, and the supermarket is providing consumers with similar stories for other foods, such as organic fruits and vegetables (see Photo 2 in the Appendix). A consumer who wants to purchase carrots, for example, could obtain information such as production location (prefecture), name and number of producers in the producing cooperative, comments from producers, production methods (e.g., reduced fertilizer), type of fertilizer (e.g., composted, fully aged injected manure, rice bran, rice straw, rice chaff), and insecticides and antibacterial

agents that had been used on the carrots. As with the computer in the meat area, customers did not appear to use this computer screen much while shopping, but the Aeon Company would like to increase the number of products for which they supply this type of information.

Jusco uses another assurance system to provide a story for a line of beef products originating from Aeon's Tasmanian (Australia) ranches. For this line of beef, the store posts a certificate of assurance from the Australian Feedlot Association (see Appendix Photo 3), and pamphlets with this and other assurances are available for customers to take with them. The certificate assures customers that this beef is produced under "management systems audited under the National Feedlot Accreditation Scheme" to ensure that the beef is "free of hormone growth promotants, therapeutic antibiotics, bone meal feed materials, and any genetically modified feed materials." Other in-store signage and leaflets promote this beef as being from Black Angus cattle fed for more than 200 days for greater tenderness. The consumer is assured of a "full anxiety-free" product.

The Jusco assurance systems are implemented under the TruValue brand, which was once an in-store generic label for less-expensive products. Jusco has elevated the brand to represent higher-value, differentiated products. The brand logo is color-coded to identify different attributes associated with agricultural produce, seafood, and livestock, produced with consumer health (including avoiding known allergens) and the natural environment in mind.

Other supermarkets in Japan are using similar systems of providing a story for their meats. For example, Ito Yokado supermarket posts point-of-sale information that includes photographs of producers and information such as the type of animal (see Photos 4 and 5 in the Appendix). Japanese consumers prefer meat harvested from black-haired cattle and pigs, and labels allowed consumers to discern that fact about a product, as well as the location where an animal was produced. Each package of meat included a photograph of the producer(s) on the label. Other signage promoted attributes or systems such as that the beef had been tested for BSE (see Photo 6 in the Appendix). The photo labels were used on packages of beef, pork, chicken, and frozen fish produced through aquaculture. The displays at the red meat and poultry meat counters were for domestic product only. At the seafood counter, this system was used primarily for domestic products, although a package

of frozen fish from New Zealand displayed a label with a photograph of the producer (it was not clear if the fish was raised through aquaculture or caught by a fisherman).

Although processors and importers report that consumer demand for this type of assurance is strongest for retail end users, the food service industry also is using story meats as a marketing tool. For example, one chain of mid-priced, family-style restaurants uses product origin and descriptions to describe the meat served in meals. Among the products described were domestic chicken, Chilean pork, U.S. beef, and Australian beef. The menu included a small map of the country or prefecture of origin, a photograph of the meat's producer, and a short description about why the product was healthy and tasty. The menu noted that the Chilean pork was raised in mountainous areas using breeds and rations similar to those used for domestic pigs, making the pork tasty, and that the Chilean producers had complete safety controls, making the pork safe. Also according to the menu, the domestic chicken was raised in a mountainous area with fresh air using fresh herbs in the ration, making the chicken healthy and flavorful. A complete meal made with the Chilean pork sold for about U.S.$7.15 and a meal made with the domestic chicken sold for about U.S.$8.00.

In addition to food service, processors reported that consumers are increasingly interested in knowing the source of meat used in processed products. Because of BSE, beef is the focus of most meat traceability and assurance systems, but companies are gradually attempting to assure the safety, health, and taste attributes of all types of meat and other products.

Product Differentiation

As noted, Japan is implementing full traceability systems only for high-value meats such as domestic Wagyu beef, for which consumers are already paying substantial premiums compared with the price of most imported meat products. Reportedly, no research has been conducted on willingness to pay for assurance systems for imported meats. Some industry members believe that photographs of U.S. producers on meat labels would have the same impact as that of Japanese producers in providing consumer assurance, but results from focus group research are less clear about the effectiveness of this type of assurance.

Many importers believe that the key to building a loyal customer base and obtaining premiums for imported meats will be in differentiating the product from that of competitors. Imported meats sold as a commodity product are more sensitive to changes in product costs and to market forces, such as currency exchange rates. Overcoming the commodity image will make some imported meat more competitive, especially in high-value markets, which are more stable than are lower-value commodity markets. In these markets, price is important, but consumers are less price conscious, and quality remains the key factor in purchasing decisions. Associated assurance systems will play a major role in product differentiation. Importers stress the need not only to differentiate product but also for exporters to stand behind their products. Many retailers are creating their own brands, so that exporters could supply "buyer brands" according to the customers' production and quality standards and provide the buyer with the appropriate documents for consumer assurance systems. Hayes, Lence, and Stoppa (2003) suggest leveraging the knowledge that Japanese importers have about U.S. meat products such as grain-fed Midwest beef in developing brands that would differentiate U.S. products in Japan.

As noted, some attributes of imported meats are already being marketed (see Photo 7). Imported pork from animals that had not been treated with antibiotics and had not been fed genetically modified (GM) rations was being offered in one supermarket at a substantial premium compared with domestic meat. From the perspective of many Japanese consumers, the use of biotechnology in crops and foods is undesirable, so meat from animals fed non-GM rations is marketed as a value-added product.

Organic meats constitute a gradually increasing niche market for which premiums are paid. Japan officially recognizes the U.S. National Organic Program and plant-based agricultural products from U.S. producers who have been certified as meeting U.S. organic standards. These products may be labeled and represented in Japan as organic products. However, such an agreement has not yet been determined for meat products. The Japanese government is examining the Codex definition of organic and will eventually release regulations regarding organic and natural meats. Determining the potential for U.S. organic meats in this market will be difficult until the definitions are published. If Japan's standards do not match U.S. standards, problems with certification could arise.

Who Will Supply Red Meat to Japan?

Between 1960 and 2001, Japanese self-sufficiency in beef declined from 96 percent to 36 percent, so most of Japan's beef supply is imported. In addition, industry members note that domestic Wagyu production is limited to slaughter of 3,600 head per day. The Japanese government would like to encourage domestic beef production, but production is not expected to increase significantly because of land and waste management constraints. At the same time, Japan's population will continue to age, and consumption will become relatively static over the longer term. Thus, beef exporters will be vying for a share of a relatively finite import volume.

Japan's pork industry is moving toward larger-scale operations, with smaller-scale producers exiting the business. Between 1990 and 2002, the number of hog producers declined from 43,000 to 10,000, and the average number of pigs per farm increased from 270 to 960. The total Japanese pig herd declined from 11.8 million head to 9.6 million during the same period (*Japan Agrinfo Newsletter Statistical Reference* 2003). Strong new waste management regulations mean that domestic production will not expand because new facilities will require prohibitively expensive state-of-the-art waste management equipment. Pork self-sufficiency in Japan is 57 percent, so imports will continue to supply a high percentage of Japan's pork needs.

In general, all imported meats face a consumer bias favoring domestic meats. Beyond this basic hurdle, however, some industry participants believe that future competition in the Japanese market will be among the suppliers that can provide safety assurances for their products. As a result of E. coli 0157:H7, BSE, and other safety-related issues, Japanese consumers view beef safety differently from pork and poultry meats. Many consumers increased their consumption of pork at the expense of beef during the BSE crisis, but many also turned to seafood, poultry meat, and non-meat protein sources. In the current market, beef presents a special challenge, but the way beef is marketed in Japan will pave the way for similar systems for pork, poultry meat, and other food products.

The Japanese government has done little to educate consumers about the relative safety of beef from the United States, Canada, and Australia. Because Japanese consumers trust the safety of domestic product over imported product, consumption of imported

beef declined along with that of domestic beef during Japan's BSE crisis. As shown in Figure 3, the market for domestic beef recovered more quickly than did the market for imported beef, for which the United States and Australia are the largest suppliers. In the aftermath of the BSE crisis, some Japanese importers believe that Australia's Geographical BSE Risk (GBR) rating of Level I and the U.S. rating of Level II gives Australian beef an edge in terms of perceptions of safety.[1, 2]

Results from consumer focus groups in Japan indicate that consumers will pay 20 percent more for foods that carry safety assurances and information such as where the product was raised and by what methods. This response generally is supported by price differences in supermarkets where meats and vegetables are accompanied by such information. It should be noted that such information generally is being supplied for products such as domestic Wagyu beef, which already commands substantial premiums compared with imported product (see Photo 8 in the Appendix). Reportedly, no research has been conducted specifically on willingness to pay more for assurances such as traceability of imported meats. However, supermarkets have begun offering imported meats at a premium compared with commodity domestic meats under assurance programs.

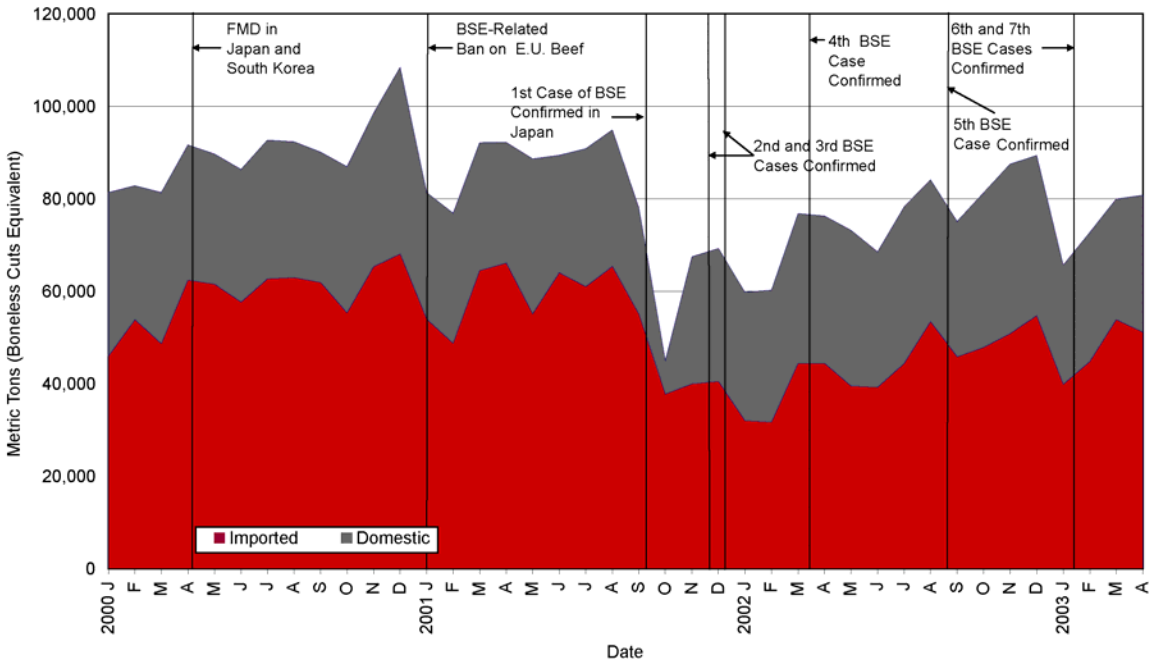


FIGURE 3. Beef marketed in Japan relative to FMD and BSE cases

Industry participants generally agree that convincing Japanese buyers and consumers to absorb new costs associated with implementing traceability systems will be difficult. For example, U.S. beef exporters are not likely to recoup traceability costs for cuts such as short plate. As it is, Japanese buyers assert that they would purchase more U.S. beef if they could obtain it at lower prices. Market experts believe that exporters with fully documentable traceability systems now in place might do well in Japan because no one else has captured the market. Over the longer term, however, further product differentiation may be the key to covering the costs of customer assurance programs. Japanese importers expressed interest in purchasing non-commodity U.S. beef for a variety of market segments, including antibiotic-free, non-hormone treated, non-GM fed, and organic beef.

The demand exists for increased sales of U.S. beef to Japan, but U.S. exporters face intense competition on several fronts. A recent paper by Lawrence (2002) indicates that Australia and New Zealand have invested heavily in programs to provide animal identification, quality assurance, and product differentiation programs for beef. Given that Australia exports 60 percent of its beef production and New Zealand exports 85 percent, there is a strong incentive for these countries to respond to the demands of a diverse set of export customers. In Australia, the government and the beef industry have cooperated in investing in research and infrastructure that, according to Lawrence, "allows smaller supply chains to adopt the systems and differentiate their products in the marketplace." Given the smaller size of New Zealand's beef industry, initiatives there are being led and financed by individual companies, so the rate of implementation there is generally slower than in Australia. As a whole, the U.S. industry is less advanced in implementing similar systems.

As noted, pork is viewed differently from beef in Japan, and processors and importers report that U.S. pork has relatively good standing in terms of safety. However, the hotel and restaurant industry (HRI) and retailers want consumer assurance programs for pork similar to those for beef. Although pork traceability is not mandatory for domestic products, pork is on the list of products under consideration for traceability legislation. Additional attributes such as antibiotic-free and non-GM fed are valued at the retail counter. Thus, the Japanese market is requesting similar assurance programs.

Canada and Denmark will continue to provide intense competitors in this market. Canada's smaller plants with slower line speeds are accommodating importers' requests

for cut specifications, making them the chosen supplier for chilled and frozen cuts among some importers. Japanese industry participants note that they like the consistency, size, and quality of Danish loins, which produce "identical hams." Some importers also prefer both countries for quality differences and lower incidence of pale, soft, exudative pork. Importers report that U.S. loins and other cuts are too large for the portion sizes desired in Japan. In addition to these reported differences, importers mentioned Canada's recent moves toward providing traceability for pork and asked whether the United States will implement similar initiatives.

Quality used to be the key factor in exporting meat to Japan, but the product that instills trust has become at least equally important. It appears that the goal of most importers will be to purchase red meats from suppliers who can provide a low-cost product with marketable assurance programs, many of which will require some level of traceability. Not all market segments will require consumer assurance programs. In the short to medium term, the bulk of Japanese imports will continue to be dominated by commodity-type meat, but demand for higher-value, differentiated meat products for retail and HRI will increasingly supplant demand for commodity meats in Japan (see Photos 9, 10, and 11 in the Appendix). Because of BSE, this process is proceeding more rapidly for beef than for pork.

Ideally, Japanese importers would like farm-to-fork traceability that includes information about medication and rations and DNA identification. As noted, however, Japanese importers understand the difficulty U.S. exporters face in providing traceability. These importers expressed a willingness to consider other methods of providing evidence on which to base consumer assurance programs, especially for systems that implement high production and manufacturing standards scientifically linked to food safety.

Endnotes

1. The GBR levels were developed by the European Commission (EC) as a qualitative indicator of the likelihood of the presence of one or more cattle being infected with BSE at a given time in a country. Based on the EC criteria, Level I means that "the presence of one or more cattle clinically or pre-clinically infected with the BSE agent in a geographical region/country is highly unlikely." Level II means such presence is unlikely but not excluded (European Commission 2002).

2. This report was prepared prior to the confirmation of BSE in a Canadian cow in May of 2003. The impact of that case of BSE on Canadian and U.S. beef exports is not considered here.

Appendix: Consumer Assurance

PHOTO 1. This computer in the meat department of a Jusco Supermarket (Aeon Company, Ltd.) is part of a Security Check System that allows customers to obtain information about the domestic Wagyu beef they are purchasing. Customers enter a 10-digit code from the meat package to obtain a production record (which provides full traceability to the producer), a government certificate of BSE testing, and a photograph of the producer(s). The customer could also obtain this information using a home computer.

PHOTO 2. A free-standing computer in a Jusco supermarket allows customers to obtain information about the production and processing of some of the fruits and vegetables sold in the store. Customers can access photos of the producers and information about production location and use of fertilizers, insecticides, herbicides, and antibacterial agents.

PHOTO 3. The Jusco Supermarket provides a Certificate of Assurance from the Australia Feedlot Association for the Tasmanian (Australian) beef. The certificate assures consumers that an audited system ensures that the beef products supplied to Aeon Co., Ltd., are free of hormone growth promotants, therapeutic antibiotics, bone meal in feed materials, and any genetically modified feed materials.

PHOTO 4. This sign at the meat retail counter at an Ito Yokado supermarket indicates that the beef sold here was raised by a beef group in Japan's Kumamoto Prefecture. Two of the producers are pictured.

PHOTO 5. A photo of Japanese pork producers appears on the label of packages of stir-fry pork sold at an Ito Yokado supermarket.

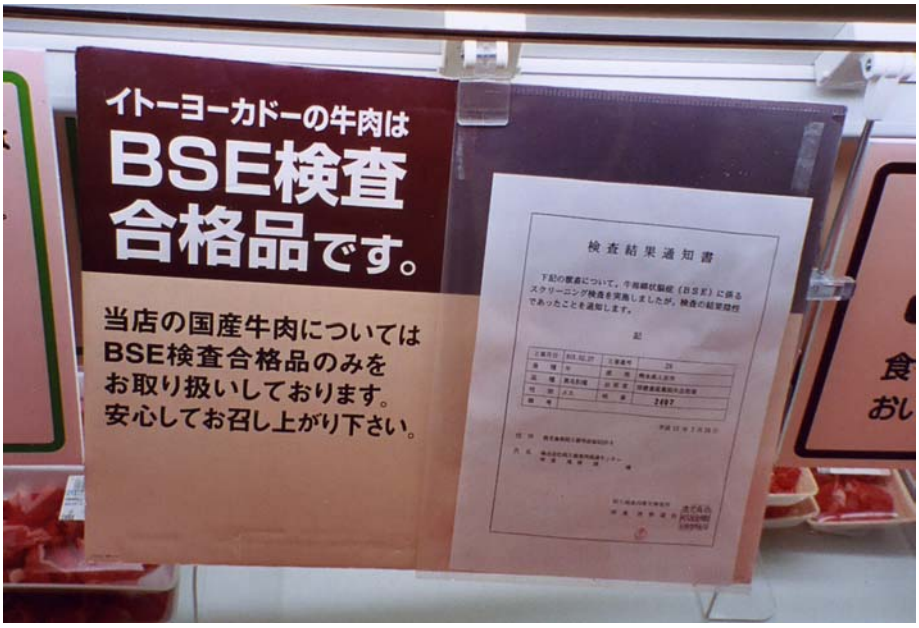


PHOTO 6. Another sign at the retail meat counter at an Ito Yokado supermarket informs customers that the Wagyu beef in this display has been tested for BSE and the buyer can enjoy the beef without worrying.

PHOTO 7. Daiei supermarkets sell meats and other items as part of a "Good Products for a Good Life" program. One product was pork from U.S. pigs that were raised in a natural environment with no antibiotics and no genetically modified grains, which resulted in tender, juicy cuts. This pork sold at a premium.

PHOTO 8. Another point-of-sale sign at the Daiei Supermarket offers Wagyu beef raised with no antibiotics, no bone meals, no growth-promoting hormones, and rations using only corn, barley, and other grains. These types of consumer assurance were common in meat retail cases in Japanese supermarkets.

PHOTO 9. A Japanese supermarket features American Beef as the day's special. The tray on the right offers four kinds of seasoned beef: basil, spicy, lemon, and garlic.

PHOTO 10. Spices and sauces are conveniently located in the same area as American beef for grilling in an Ito Yokado supermarket.

PHOTO 11. U.S. pork is featured at ¥99 per 100 grams (about U.S.$3.74/lb) and sold alongside sauces and netting for cooking. Placing marinades, sauces, spices, and cooking accessories in or near meat cases is a common practice in large supermarkets. U.S. Meat Export Federation signage was prominent near this display.

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