Enhancing Canadian Beef Industry

Value-Chain Alignment

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Table of Contents

Executive Summary ii

Introduction 1

Objective 1

Methods 1

Background 2
Export Dependence 2
Industry Focus Group Results 5

Enhancing Value-Chain Alignment 6
Industry Vision Statement 6
Determine Commonalities and Differences 6
Consumer Driven 7
Education and Communication 7
Facilitate Increased Interaction 7
Alliances Enhance Vertical Alignment 10
Improve Vertical Cooperation 10
Increase Information Flow 10
Pricing Systems and Value 12
Objective Value Measurement 12
Vertical Integration: Packer Feeding and Producer-Owned Packing 13
Differentiate through Product Attribute Enhancement 15
Product Branding Strategies 15
Develop Additional International Markets 17
Vulnerability to U.S. Market 17
Identify Markets with Growth Potential 18
Pre-Emptive Management of Animal Health and Food Safety 18

Strengths, Weaknesses, Opportunities, and Threats 19
Strengths 19
Weaknesses 19
Opportunities 20
Threats 20

Recommendations 21

Appendix A. Canadian Beef Industry Focus Group Members 22

Acknowledgments 22

Executive Summary

Being a leading supplier of high quality safe beef to the world is a vision Canadian beef industry representatives strongly support. To accomplish this in the highly competitive world protein market arena requires strong alignment of the Canadian beef value chain. Each segment of the vertical market chain from seed stock and cow-calf producers through feedlots, packers, and processors must work together toward a common goal for the market being targeted. Conceptually, aligning the Canadian beef value chain sounds simple and easy, in reality, it is complex and difficult.

Canada has enjoyed substantial growth in beef and fed cattle exports over the past 20 years as economic conditions favored development and expansion of particularly the Alberta cattle feeding industry. The BSE event of May 2003 stifled Canada's global market growth, at least momentarily, as world markets closed to Canadian exports. Over time, these export markets appear to be gradually reopening. Further complicating trade, the major importer of Canadian beef, the U.S., is instituting a country-of-origin labeling law on cattle and beef imports. This creates increased incentive for Canada to pursue additional international markets to the U.S. Increased value of the Canadian dollar has made Canadian beef more expensive to international customers making export market development even more challenging.

As markets are identified and particular consumers targeted, a coordinated and well-aligned vertical value chain must be developed to provide the particular products being demanded in an efficient manner that can compete with other suppliers. A vertically coordinated value chain has all participants working toward a common goal, sharing information with each other relevant to the goal, working cooperatively to accomplish the goal, all members having both accountability to and opportunity for product characteristics, and developing mutual trust and dependence. One segment of the vertical chain cannot profit at the expense of another segment or trust will rapidly be lost. Quality measurements must be objective, price differences must reflect value differences, the animals and products need to be traceable, and incentives for innovation and new product development must be in place. In addition, branding the product is essential in such a strategy because consumers place value on information the brand alone conveys. Many different branding strategies can be successful, so identifying what type of branded product program is desired will determine the appropriate path to take to make such a strategy successful.

Several recommendations are offered as the Canadian beef industry considers the future and attempts to improve value-chain alignment. Industry goals need to be prioritized and where unified vision exists, strategies to bring together necessary vertical market chain participants need to be established. Alliances to accomplish particular goals and target certain markets that bring together various industry players in a vertical system need to be promoted. Development of a differentiated product (relative to international competitors) needs to be a high priority. Diversification of world customers to reduce dependence on the U.S. market is recommended. Finally, having a visible proactive animal health and food safety program in place is essential.

Introduction

The Canadian beef industry operates in a highly competitive world protein market. To be successful in this arena requires strong commitment to a common goal among vertically aligned industry participants. Different markets can evolve and coexist. For example, a high quality market, an organic or natural market, or other target outlets might develop. The key is that each target market has a well-aligned Canadian beef value chain providing the particular product attributes and assurances targeted consumers want. Each segment of the vertical market chain from seed stock and cow-calf producers through feedlots, packers, and processors must work together toward the common goal of the particular consumer market being targeted. This means that sharing of information vertically up and down the production and marketing system is critical. Conceptually, this sounds simple and easy, in reality, it is complex and difficult. What are the goals of the Canadian beef industry? How does alignment of the supply chain influence the ability of Canada to attain these goals? What strategies might industry participants consider as they pursue these goals? These are a few of the particular questions this report addresses.

Objective

The purpose of this report is to develop strategies for enhancing supply chain alignment in the Canadian beef industry. This project is intended as a steering document to assist the Canadian beef industry in addressing objectives under a pathway of the National Beef Industry Development Fund (NBIDF) entitled Supply Chain Alignment. The goal and objective of this pathway as developed by the NBIDF are:

Goal: Improved Alignment of the Supply Chain.
Objective: Improved value, quality, and supply alignment through enhanced information flows and understanding of pricing dynamics.

This report provides background information, identifies challenges and opportunities, and provides strategies for accomplishing these goals and objectives. The primary objective of this study is to provide a set of recommendations for the NBIDF and Canadian beef industry to accomplish the goal of this pathway.

Methods

To collect information for this study, several sources were solicited. First, industry participants across seed stock and cow-calf producers, stockers, cattle feeders, packer/processors, and retailers served as a focus group (participants are listed in Appendix A) to identify issues present in value-chain alignment in the Canadian beef industry. These participants were generous givers of their time and candid in providing their thoughts and ideas. It is important to keep in mind as the industry focus group sentiments are considered that these interviews were for the most part completed during August 2003 in the midst of the industry facing and dealing with the backlash from the BSE event. As such, focus group sentiments undoubtedly were affected by the state of the industry at that time. In addition to the focus group, findings from numerous other industry reports (e.g., Sparks Report)[1] and data from reliable sources (e.g., CanFax, FAOSTAT, and USDA) are utilized to document key trends and issues.

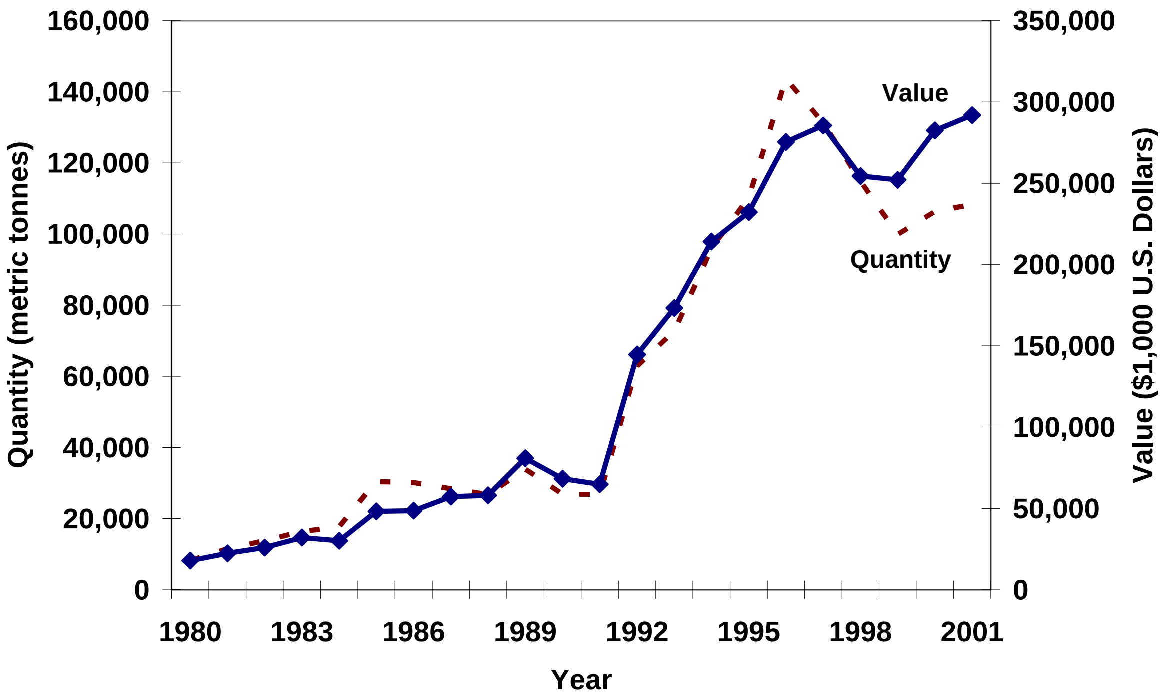
[1] Sparks Companies Inc. *Global Livestock, Meat and Poultry Competition: Potential Impacts on North American Production and Trade*. Unpublished Special Multi-Client Study, May 2003.

Background

Export Dependence

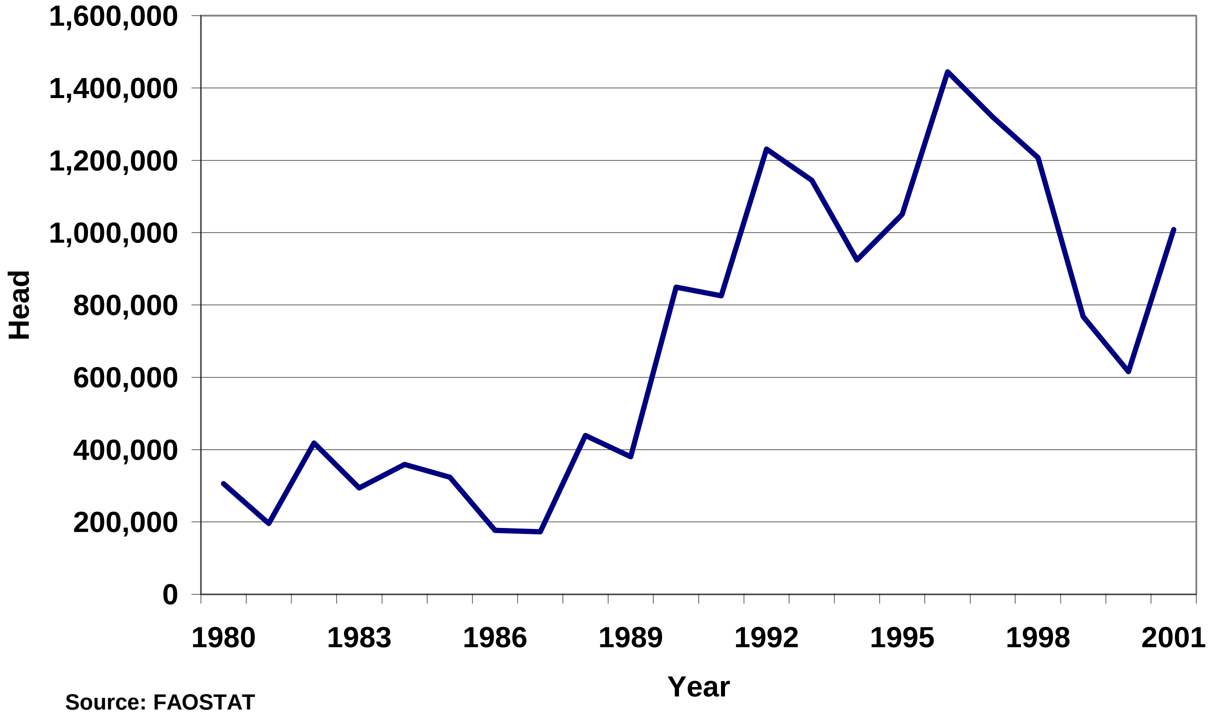
The purpose of this report is not to conduct an exhaustive analysis of Canadian beef trade. However, given the importance of trade to the industry, it is a central issue and as such deserves brief review. Over the past two decades the Canadian beef industry grew from a relatively small sub sector to a major exporter. Beef exports grew rapidly from 1980 to their peak in 1996 doubling, on average, about every four years (Figure 1). Since 1996 beef exports have been relatively steady averaging around $275 million U.S. dollars. The growth in Canadian beef production and exports was most pronounced in Alberta which represented approximately 70% of Canada fed cattle production and cattle slaughter in 2002 (CanFax). In addition to beef exports, live cattle exports also grew rapidly from about 200,000 head per year in the early 1980s to around 1,000,000 head throughout most of the 1990s and into the early 2000s (Figure 2). The phenomenal growth of Western Canada's beef production and factors leading to its growth have been well documented elsewhere (e.g., Sparks Report) including favorable exchange rates with U.S. (its major importer), relatively cheap feed grains, environmental regulations favorable to expansion, and venture capitalists willing to make investment in cattle feeding.

Figure 1. Annual Canadian Beef Exports, 1980-2001



Source: FAOSTAT

Figure 2. Annual Canadian Live Cattle Net Exports (Exports minus Imports), 1980-2001

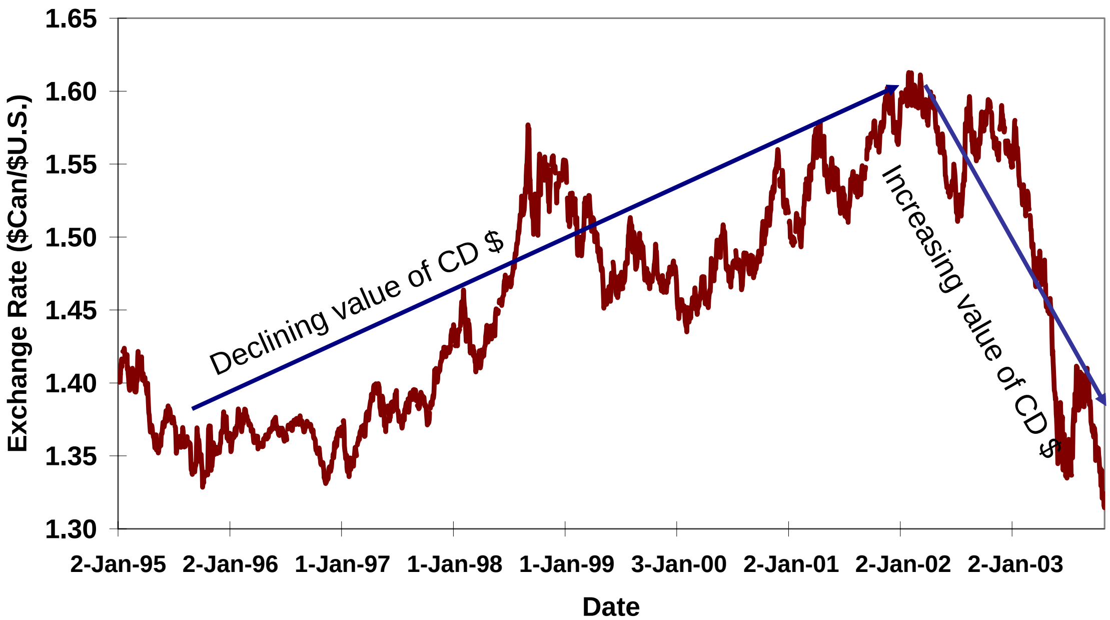


Source: FAOSTAT

The Canadian beef industry faces a highly competitive and developing global market place. Major competitors for global markets include the U.S., Australia, New Zealand, Brazil, Argentina, and Uruguay (as detailed in the Sparks report).[2] One major factor over time that has benefited the Canadian beef industry was the declining value of the Canadian dollar relative to the U.S. dollar. Figure 3 illustrates that 1 U.S. dollar was equivalent to 1.4 Canadian dollars in 1995-96 and by 2002 1 U.S. dollar was worth 1.6 Canadian dollars. Such a decline in value of the Canadian dollar facilitated exports of Canadian products by making them effectively cheaper to the U.S. However, since 2001, the Canadian dollar has increased in value by nearly 20% which effectively increases the cost of Canadian cattle and beef to the U.S. by 20%. This increase in the value of the Canadian dollar relative to the U.S. dollar makes exports more expensive to essentially all importing countries. This encourages importers to substitute away from Canadian beef to less expensive beef from competing exporters. With so much dependence on exports, the Canadian beef industry is much more strongly influenced by its relative currency value than is the U.S. industry. Therefore, strategies for managing risk of volatile exchange rates in the beef industry in Canada (especially relative to U.S. currency) need additional attention. Canadian macroeconomic monetary policy has substantial influence on competitiveness of the Canadian beef industry in world markets.

[2] Sparks Companies Inc. *Global Livestock, Meat and Poultry Competition: Potential Impacts on North American Production and Trade*. Unpublished Special Multi-Client Study, May 2003.

Figure 3. Value of Canadian Dollar (Canada Dollar per U.S. Dollar), 1995-October 2003



Source: U.S. Federal Reserve

The incident of a beef cow in Alberta testing positive for BSE in May 2003 and the subsequent closing of all of Canada's export markets (most notably to the U.S.) through August 2003 will dramatically alter the growth rates in exports enjoyed over the past 20 years. However, as international scientists concluded the BSE incident appeared isolated, trade has begun to re-open with trade in boneless young muscle cuts opening with the U.S. in late August 2003. This gives reason to believe continued opening of trade in at least beef and perhaps live cattle less than 30 months of age is probable in the near future. As the future of the Canadian beef industry is contemplated and as strategies for enhancing value chain alignment are considered, the BSE incident cannot be ignored and it will change the industry forever. However, the Canadian beef industry will survive this catastrophic event, but exactly what it will look like in a year or two is not certain. A particular challenge will be what to do with cull cows and bulls. Many of these were exported live and slaughtered in the U.S. Another important challenge is how Canadian beef is viewed by U.S. retailers especially as country-of-origin labeling of beef is enacted. Retailers indicate reluctance to purchase especially fresh product from international sources. This may result in particular U.S. plants dedicating certain days to Canadian cattle slaughter (when cross-border live cattle movement reopens). Some U.S. plants will likely refuse to purchase fed cattle that are not of U.S. origin, which could increase the need for more slaughter capacity in Canada. U.S. food service establishments will likely be the most viable market for Canadian beef in the U.S. if country-of-origin labeling is enacted in its current form.

Industry Focus Group Results

Surveys conducted of industry focus groups demonstrated an overwhelming sentiment that Canada is not likely to be the world's low-cost beef supplier. In fact, 94% of respondents ranked "Being high-quality world beef supplier" as their first- or second-highest ranked priority. The Canadian beef industry focus group participants were provided a list of five possible priorities to rank. Results are provided in table 1.

Table 1. Ranked Priorities for Canadian Beef Industry by Industry Focus Group

Rank	Priority	Average Rank
1	Being high-quality world beef supplier	1.7
2	Food safety assured world beef supplier	2.1
3	Increasing market share in world markets	2.7
4	Being low-cost world beef supplier	3.7
5	Having "Canadian" or "Provincial" brands on beef	4.2

The first two priorities suggest a production and processing protocol that requires increased alignment across various industry players to ensure quality and food safety of beef products. These product attributes do not just occur through traditional cattle production and marketing protocols. Assurances of quality and food safety require close attention to production management, slaughtering, processing, and handling activities.

Value chain alignment in the beef industry means different things to different players but key phrases resonated frequently in interviews with industry participants. Characteristics they mentioned of an aligned value chain include:

Table 2. Industry Focus Group Cited Characteristics of an Aligned Value Chain

1. ***Various industry segments share a common goal and vision of how to get there.***
2. ***Information and value signals relevant to achieving the common goal flow upstream and downstream across all segments of the industry.***
3. ***Working relationships among vertical players are cooperative.***
4. ***Integrity of all members of the chain develops trust and dependence on each other for success (i.e., profit).***
5. ***Value measures are objective, measurable, transparent, and verifiable.***

The industry focus group developed a ranking of attributes that are needed in the beef market system by order of importance. The average rankings of respondents are provided in table 3. Strong preference exists for having more objective quality and yield measures, having prices tied more closely to quality, farm/ranch prices more closely associated with retail beef prices, and having traceability of product back to the ranch. Of those items listed, least important on average, was how market risk was spread across market stages and whether there was independent ownership at each stage.

Some focus group participants indicated concerns regarding animal health programs and agencies. For example, some felt the Canadian Food Inspection Agency (CFIA) needs to change its policy restricting access to U.S. feeder cattle. Year-around access to U.S. feeder cattle imports is critical especially to feedlots located near the U.S. border. Others felt that CFIA should not be at the table negotiating trade issues. Several suggested the need to have a North American (U.S., Canada, Mexico) food safety program for all cattle and beef. This needs to be a broad based effort together. Separate industry health protocol standards across North America are not warranted. Focus group members also cited concerns over insufficient understanding of beef industry issues in general by policy makers.

Table 3. Summary Rankings of Market System Attributes by Industry Focus Group

Rank	Market System Attribute	Average Importance (1=not important to 5=extremely important)
1	Having objective quality/yield measures	4.5
2	Price differentials associated with quality	4.5
3	Farm/ranch prices tied closer to retail prices	4.4
4	Traceability on meat back to ranch	4.2
5	Development of new beef products	4.0
6	Having tenderness guarantee on beef	3.9
7	Cutability or red meat yield	3.9
8	Having liquid weekly cash market cattle trade	3.8
9	All players part owner of branded product line	3.4
10	Spreading market risk across stages	3.1
11	Independent ownership at each stage	2.5

Enhancing Value-Chain Alignment

To address the priorities of being a high quality, enhanced food safety assured world beef supplier and increase world market share requires enhanced value-chain alignment which means the industry must: 1) Develop an Industry Vision Statement, 2) promote and cultivate alliances that enhance vertical alignment, 3) develop additional international markets, 4) differentiate through product attribute enhancement, and 5) manage animal health and food safety concerns on a pre-emptive basis

Industry Vision Statement

Determine Commonalities and Differences

A vision for the Western Canadian beef industry needs to be developed. Together the industry needs to decide whether the ranked priorities provided by the industry focus groups (table 1) are widely accepted and whether they are complete or appropriate. Getting all industry participants operating on the same goal or vision may not be possible or even desirable. However, economic signals send strong messages and those who elect not to contribute to the overall goal must be sent appropriate economic signals. Separate markets targeted for different consumers could still exist under this overarching umbrella (e.g., cattle produced under traditional production practices, natural or organically produced, cattle produced without use of synthetic hormones, cattle produced without use of antibiotics, etc.). Cattle and beef targeted for different markets have different values and appropriate price signals must be present.

Consumer Driven

Whatever path the Canadian beef industry elects to follow in developing a vision, remember that the consumer is in the driver's seat. Avoid the temptation of presuming beef packers, retailers, feedlots, cow-calf producers, seed stock providers, or any other production or marketing players are in charge. All opportunity for industry-wide growth and prosperity rests with being able to provide what consumers want. A vision for value chain alignment must be focused on consumers and providing what they want.

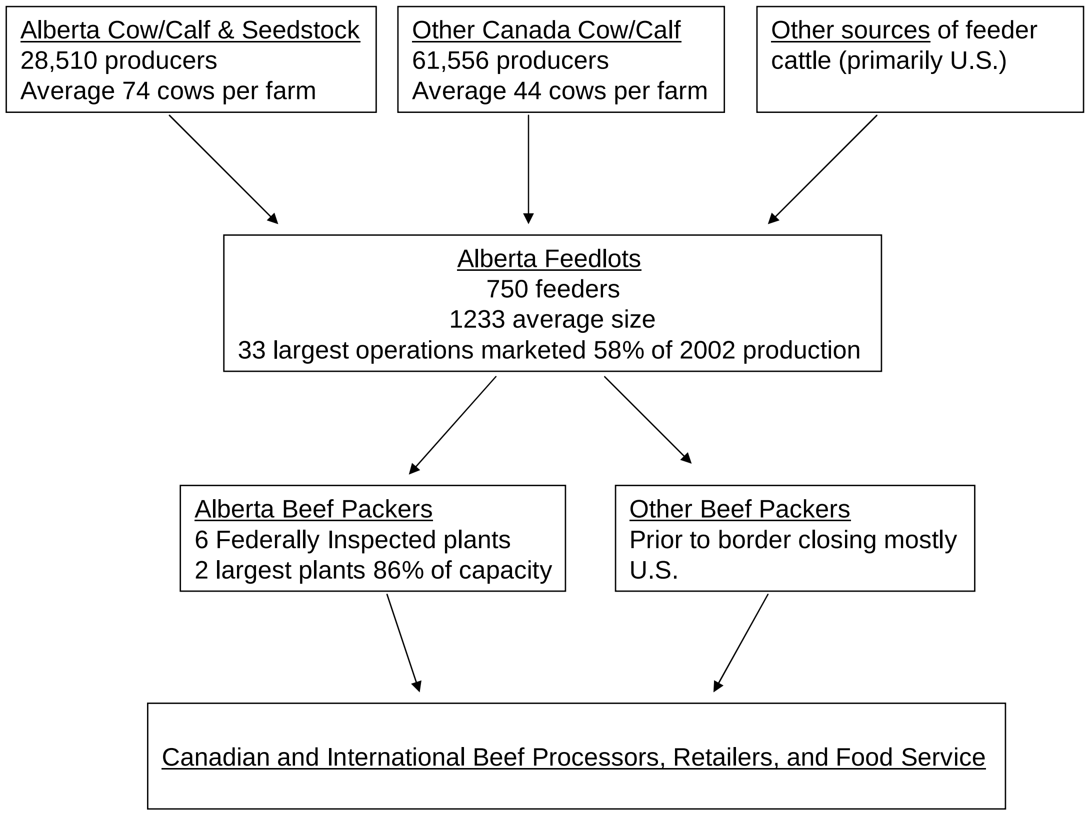
Education and Communication

If a vision is for example to be a high quality, enhanced food safety world beef supplier then all industry participants targeting this goal must be committed to accomplishing this objective. Any industry participant that is not contributing to this objective must be held accountable through strong market signals. Or said another way, those that are participating see enhanced market opportunities. Any major part of a particular segment of the industry that is not operating consistently with this objective is a more substantive problem as an entire segment cannot be easily bypassed. The challenge in this case is to demonstrate to key players in this segment the importance and profit enhancement opportunity that will accrue if the common goal is adopted. Widespread education and communication are critical to meeting a common industry goal. If a particular segment of the industry is somehow made worse off by adopting this common industry effort, the only way to get them to participate may be to enhance that segment's incentive.

Facilitate Increased Interaction

Consider the Alberta beef production and processing chain as an example to highlight challenges in getting all participants focused on a consistent goal. Figure 4 presents a simplified and condensed flow chart of cattle and beef production and processing in Alberta. A large number of small-sized cow-calf operations (more than 28,000 in Alberta alone) from Alberta, the rest of Canada, and (when the border reopens) U.S. sources supply calves to a concentrated feedlot sector. The largest 33 feedlots with 10,000 or more head capacity finish 58% of all provincial fed cattle. Fed cattle are sold to a highly concentrated packing sector with the two largest plants (U.S.-owned Tyson and Cargill) representing 86% of slaughter capacity and the top three firms representing about 96% of slaughter capacity. The levels of concentration are important to note as they suggest for example if the two large beef packers do not embrace this goal and provide their part in value chain alignment, it will not occur broadly in the industry. Industry participants indicated that packer (and retailer) concentration was a significant concern, though feedlot concentration was generally not considered a problem. The key here is to facilitate increased interaction between all segments of the industry.

Figure 4. Schematic of Alberta Beef Production and Slaughter Structure



Source: CanFax and Statistics Canada

Getting the various segments to operate on a common goal is a difficult challenge. For example, many cow-calf producers have too few of cows for this enterprise to be a significant part of their overall operations. This point was well stated by Genho[3] in reference to U.S. cow-calf producers but some of the same appears to apply in Canada:

> *Profitability of the cowherd is not necessarily the driving force for a majority of the producers. Most cow/calf operations are too small to be the primary income source for the producer. In addition, some of the medium-sized operations have primary goals other than profits. These operations will be less likely to respond to, or understand, market signals. Further, they will be less apt to effect the major changes required to address improving demand. They, for the most part, will remain producers of commodity beef and thus be price-takers.* (Genho 2003, pp. 9-10).

Many industry participants (e.g., cow-calf producers and feedlots) may choose to remain in a commodity business that is not necessarily consistent with the stated goal and is not enhancing value-chain alignment. This raises an interesting question of whether other segments of the

[3] Genho, P. "The Producers Role in Producing Consumer Demanded Beef.." Proceedings from 2003 International Livestock Congress, Houston, Texas.

industry (e.g., feedlots, packers, etc.) can effectively still use generic commodity produced calves or fed cattle in an enhanced value chain? The answer is that of course they can, but it will obviously not be as successful as if the all segment players were more integrally involved. More progressive and larger cow-calf operations, feedlots, and packers will be more able and apt to adopt business practices necessary to enhance value-chain alignment if the opportunity arises. But, operation size is not the primary determinant as one cattle feeder indicated that they had worked with as few as 7 head of calves from a particular cow-calf producer in an alliance arrangement.

Another interesting question to consider is will beef packers elect to participate in an industry effort to enhance information flow to producers in attempts to be a high quality, safe world beef supplier? For example, beef processors could develop a strategy whereby they find value in aligning vertically with producers to ensure they can get the quantity and quality mixture of beef needed for brand programs. Alternatively, they could procure what is available and follow the strategy of trying to sort it and add value to market what they get. Consider for example different strategies of food processors in the U.S. Smithfield has followed the strategy of aligning with producers and even vertically integrating through hog ownership to ensure they have the type of genetics and follow particular production protocols to assure them the type of pork they need for their branded pork lines. In contrast, ConAgra, once the second largest beef packing firm behind IBP (Tyson) in the U.S., has recently divested of their beef slaughtering/processing facilities (they still own 49%, but they sold controlling interest). ConAgra is removing themselves further from production and slaughter of commodities, instead purchasing the commodity product in the market (often with audit procedures of suppliers to ensure quality and safety standards) and adding value by differentiating products through extensive processing and branding.

Both strategies can be successful (as Smithfield and ConAgra are demonstrating). However, the producer’s role under each strategy differs somewhat. Given Canada’s relative strengths and industry goals, a Smithfield-type strategy of increased vertical coordination and information flow is likely to be more effective for the Canadian beef industry as a whole than the ConAgra-type strategy (albeit, vertical ownership of cattle by beef packers is not likely to be as desirable as it appears to be in hogs). Further, as we consider where the growth opportunities are occurring in consumer markets in the beef industry, they suggest increased accountability up and down the production and marketing chain for quality, food safety, and even animal welfare concerns (e.g., consider recent developments by McDonalds in requiring particular animal welfare protocols of their suppliers). These developments suggest a strategy aligning together all industry participants may be most viable.

Discussions with large Canadian beef packers that were part of the focus group revealed a desire to work with producers to develop programs that could better align the value chain. For example, they both indicated willingness to provide information to producers about beef quality attributes if sharing of this information was jointly beneficial and not used by the producer to benefit a competitor’s program. The essence of these discussions was that if producers are willing to work with the packers, the packers are ready to work with the producers to develop value-alignment strategies. However, Tyson and Excel (Cargill) both noted the magnitude of challenges highlighted throughout this report in getting consumer signals back to producers.

Alliances Enhance Vertical Alignment

Improve Vertical Cooperation

The beef production and marketing chain has a tendency to be adversarial across market stages. Often producers and beef packers have antagonistic relationships toward each other, but rivalry is apparent even across different stages of production (e.g., cow-calf producers and cattle feeders). Adversity stems from the ownership structure of the industry, distrust, and imperfect information. Generally, each stage of production is owned by different individuals. Unfamiliarity of participants at different market stages with motives, margins, and business strategies at other stages also creates strain among industry participants. For whatever reasons, historical tensions among vertical market segments in the U.S. have tended to be greater than those in Canada. However, tension has escalated in Canada following the BSE event as fed cattle price dropped precipitously and perceptions were that this was without comparable reductions in wholesale (though by-product prices dropped substantially) and retail beef prices.

Adversarial relationships among players at various vertical stages of a market system may be considered beneficial by some because it fosters competition. To some extent this may be true. However, adversarial relations between suppliers and customers contribute to distrust and continuous tension. Consider how an adversarial relationship between veterinarians (suppliers of animal health services) and customers would compare to when it is congenial and built on information sharing, trust, and respect for what each contributes to the other. Benefits of such a cooperative vertical relationship are similar for cow-calf producers and cattle feeders, and between cattle feeders and beef processors, etc.

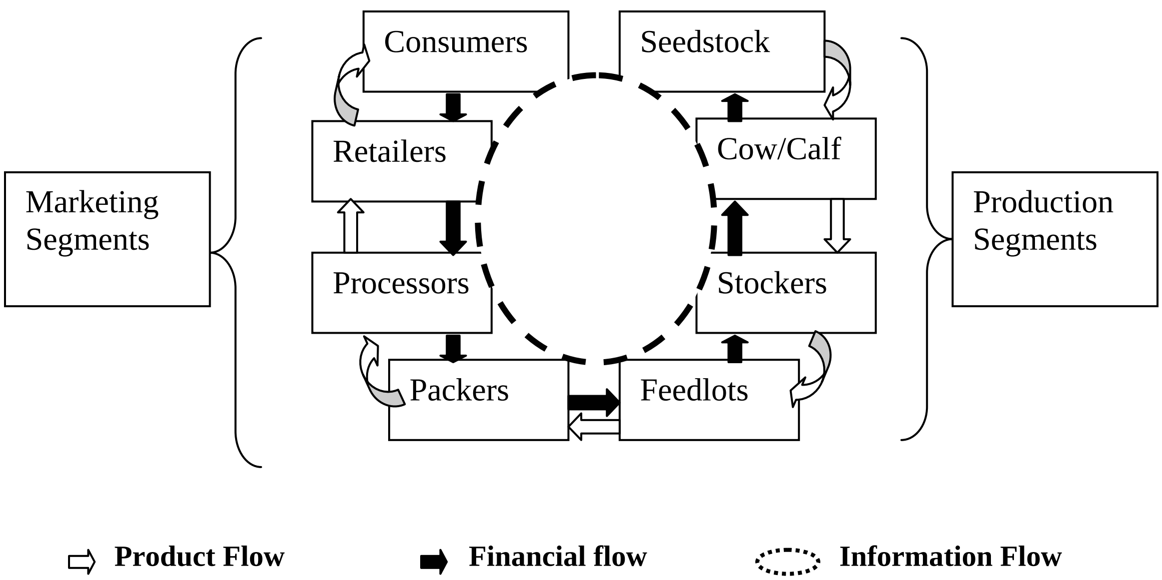
Increase Information Flow

For example, cow-calf producers rely on seed stock suppliers to provide accurate and reliable information regarding breed, expected progeny differences, calving ease, weaning weights, and related production and carcass quality attributes. Similar information, in addition to preconditioning and vaccination programs, is relevant from the cow-calf producer to the feedlot. Likewise, the packer benefits from knowing cattle quality and yield expectations from the feedlot much like the retailer benefits from anticipating quality and yield of meat cuts from the packer. Each vertical stage of the production and marketing chain benefits from having knowledge of what they are purchasing from their upstream suppliers. As such, each stage also has a vested interest to share the information back to suppliers once it is realized because this provides opportunity for future improvement. For example, the feedlot needs to have information back from the packer regarding carcass quality and yield and likewise the feedlot needs to share this information back to his suppliers. Only through open information sharing up and down the vertical marketing system can improvements be made. That said, because information collection and sharing is costly, if an individual participant uses information only for his own benefit and not that of the vertical market chain, information sharing will quickly be squelched.

This vested interest in better cooperation motivates alliance formation. That is, a well-aligned value chain will not work when vertical partners do not trust each other. Trust is gained through open information sharing and exchange. Withholding or misrepresenting relevant information that is important to vertical members of the value chain increases distrust and, even more importantly, inhibits attainment of a common goal of supplying high quality, safe beef to the world. People, not business structures, make business relationships succeed or fail.

To better align the value chain requires detailed sharing of information. A producer cannot produce beef possessing a particular set of characteristics if knowledge of performance is not well known and transparent. This means to enhance value-chain alignment processors must provide feedlots with detailed cattle slaughter performance data and feedlots likewise must provide cow/calf producers with detailed feeding and slaughter performance data. Too often in the beef industry information is withheld across vertical segments because of the incentive asymmetric information provides for individual profit opportunities at the expense of someone else. Information flow is essential in a well-coordinated market system. Figure 5 illustrates how product and money flow in the beef production and marketing system with information being the critical factor determining efficiency. Without clear, transparent, and detailed information flow, improvements at each segment are nearly impossible and the value chain fails to send appropriate information to participants.

Figure 5. Information, Product, and Financial Flows in Beef Industry



However, with information sharing also come responsibilities of parties to work together. For example, post-harvest quality measurement and development of technology to more accurately measure meat quality attributes increase the likelihood of alliance formation between vertical market participants. The reason is that a significant motivation for forming an alliance is to develop a method to share detailed information among the parties to increase the ability of the supplier to respond accordingly. A processor is much more likely to share detailed quality and yield information they have acquired about cattle they slaughter if they know their supplier will utilize this information to improve production practices and supply improved cattle to this processor and not to competing processors. If the producer uses information purely for his own gain, the processor has considerably less incentive to invest in such technology and even a disincentive to provide detailed information back to the producer. Similar arguments can be made with regard to sharing of information across each vertical stage of production and marketing in figure 5.

Pricing Systems and Value

One place Canada lags behind the U.S. is with regards to the number of fed cattle that are being sold on a value-based grid. As shown in table 4, the U.S. had about 40% of fed cattle sold on a cash-negotiated basis (which means live- or dressed-weight same average price for every animal in the pen). In contrast, Alberta's three largest packers bought 60% of fed cattle on a cash basis in 2002, though this number declined from 68% in 2000. Furthermore, Alberta only sold 20% of fed cattle on a grid or formula in 2002 compared to just over 50% in the U.S. In a survey of cattle feeders located in Kansas, Texas, Nebraska, and Iowa (the concentrated cattle feeding region in the U.S.) in 2001 feedlots indicated that they expected grid marketing to continue to grow to where by 2006 they would be marketing nearly two-thirds of fed cattle using a grid (Schroeder et al.).[4]

Together, these numbers suggest overall Canadian producers are somewhat behind the U.S. with regard to understanding the quality distribution of cattle and learning how to manage cattle for grid-based marketing methods. Marketing cattle under grids takes increased knowledge of cattle kill sheet performance and more intensive management of feeding and marketing programs. Further, no information on cattle quality gets to feedlots or cow-calf producers when animals are sold on a live- or dressed-weight average price basis. This inhibits value information flow back to cow-calf producers (as do other factors).

Table 4. Alberta and U.S. Fed Cattle Marketing Methods[a]

	Alberta				U.S.
Marketing Method	**1999**	**2000**	**2001**	**2002**	**2002**
Cash	68%	68%	60%	60%	40%
Grid or Formula	11%	13%	16%	20%	51%
Forward Contracted	6%	2%	5%	3%	4%
Packer Owned	15%	17%	19%	18%	5%

[a] Data for largest three packers in Alberta (source: CanFax); Data for U.S. includes cull cow and bull sales (source: USDA).

Objective Value Measurement

In addition to sharing of information, it is critical that the information is objectively measured and highly correlated with relevant value metrics. Current quality and yield grades are poorly correlated with meat yield and tenderness. As such, more investment in technology that improves objective measures of especially red meat yield and tenderness are needed.[5] As this technology is developed and adopted, it is critical that all participants in the value chain have access to the information generated especially as it relates to product value.

[4] Schroeder, T.C., C.E. Ward, J. Lawrence, and D.M. Feuz. *Fed Cattle Marketing Trends and Concerns: Cattle Feeder Survey Results*. Kansas State University Agricultural Experiment Station and Cooperative Extension Service, MF-2561, June 2002.

[5] See Schroeder, T., C. Ward, J. Mintert, and T. Wheeler. "Fed Cattle Grid Pricing Valuation: Recommendations for Improvement." Working Paper, Kansas State University, September 2003 for a detailed summary of current technology available to measure beef quality and yield.

Vertical Integration: Packer Feeding and Producer-Owned Packing

Packer-owned cattle feeding is more common for Alberta's three largest packing firms (which represent about a 96% market share in the province) at 18% compared to only 5% in the U.S. However, U.S. packer cattle feeding is about 11% if all cattle that are either owned fully or part-owned in risk-sharing arrangements by packers are considered packer owned. With higher levels of vertical integration of packers in Canada, they may be less interested in aligning with other players in the industry. However, one reason beef packers in Canada own more cattle than their typical counterpart in the U.S. is because of the seasonality of fed cattle supply in Canada relative to say Kansas, Nebraska, or Texas. In the U.S., beef packing plants located in Colorado for example tend to have higher levels of packer-owned fed cattle especially during time periods when local supplies are seasonally tight. Alberta is similar to Colorado in that regard.

Discontent among producers with the fed cattle market environment, perceived profit opportunities in beef packing, and concerns over possible long term loss of U.S. packers as viable markets for Canadian fed cattle as U.S. country-of-origin labeling is enacted has motivated producers to consider investing in beef packing/processing facilities. Anticipated benefits of such a venture are the opportunity to garner profits from beef packing and processing, ability to secure premiums for higher quality beef, better opportunity to develop producer-owned brands, increased access to market information, and increased vertical coordination.

However, drawbacks of such a venture are large capital necessary to build and operate such a facility, high risk, challenges ensuring plant capacity is utilized, labor concerns, costs relative to large competitors that have achieved greater economies of scale and scope, development of the vast array of markets for the myriad of products that originate from bovine, and ability to compete in global markets with multinational companies already in the business. Consider for example Cargill and Tyson with considerable access to market infrastructure and information in the U.S., Japan, Mexico, and other major meat importing countries. A small producer-owned beef packer would need to be able to operate in such a market environment which presents a formidable challenge. One of the substantive risks single-plant beef slaughter operations face is that a single food safety event can put the company out of business as has been witnessed in the U.S. (e.g., Beef America and Hudson Beef).

An important dimension of the Canadian beef packing industry is that the two largest packers (Cargill and Tyson) are U.S.-headquartered companies and are among the largest beef processors in the U.S.[6] As such, these firms would be expected to use Canadian cattle and beef to compliment and coordinate, but not directly compete with beef from their own U.S. plants (and vice versa). Given importance of Canadian cattle and beef trade with the U.S., this cross-border plant ownership represents a competitive advantage for these firms relative to strictly Canadian-owned packing plants. For example coordinating cattle slaughter schedules as well as Canadian meat product sales is facilitated by plant ownership in both countries. Of course, this also means that these firms will not necessarily always rank Canadian beef industry concerns in the same way that a solely Canadian (including producer-owned) firm would. This could pose a challenge if Canadian beef industry goals compete with these packers' U.S. interests.

[6] In the U.S. Tyson (IBP) has the largest market share followed by Swift (formerly ConAgra) and Cargill (Excel) with similar market shares. The top four beef packing firms in the U.S. (these three firms plus National Beef) represent about 80% of total fed cattle slaughter market share.

U.S. producers who have joined together for the purpose of owning beef slaughter plants have realized mixed success (table 5). For example, U.S. Premium Beef is a producer-owned closed cooperative that now owns majority interest in National Beef with two packing plants located in Southwest Kansas.[7] U.S. Premium Beef is by most accounts considered a successful business. Brawley Beef is a group of initially seven and now eight cattle feeders who built a 1600/head per day state of the art capacity packing plant in Imperial Valley California. Brawley Beef's target consumers are those demanding high quality beef with an emphasis on health and safety. They are marketing beef to both domestic and international customers. Iowa Quality Beef Supply Network is a collection of more than 750 cattle producers from 12 states who raised more than $7 million to renovate a beef plant in Iowa. This company is in partnership with American Foods for plant operations and beef marketing. The plant, located in Tama Iowa, has only recently begun operations so their financial performance is yet to be determined. In contrast, Future Beef Operations, which included some 25 ranchers and feedlots as substantive investors partnered with Safeway, went bankrupt after opening and operating a plant in Arkansas City, Kansas for only a short period of time. So, some producer-owned beef processing plant endeavors have been successful, some are in early stages of business operations and the verdict of success is yet to be determined, and others have failed.

Table 5. Producer-Owned Beef Slaughter Plants (Forward Integration)

Beef Company	Description	Performance
U.S. Premium Beef	Member producers recently bought majority interest in 2 plants in SW Kansas – National Beef Packing Company. They were minority interest owners since late 1997. Are also part owners of Kansas City Steak Company a company that has a mail order business and provides steak to high-end steak houses.	All accounts suggest successful company
Brawley Beef	Eight cattle feeders built a 1600 head per day slaughter facility in Imperial Valley California. The company placed the plant on a 100-acre lot so they could easily expand and they are attracting other industries to their industrial park. They indicate they will produce "the safest, most tender and most consistent beef product in the world".	Started business in 2002 so too early to determine
Future Beef Operations	Over 25 ranchers and feedlots partnered with Safeway to construct a $100 million state-of-the-art processing plant in southeastern Kansas. Opened in late 2001, closed in early August 2002	Bankrupt
Iowa Quality Beef Supply Network	Some 750 producers from 12 states re-opened a beef packing plant in Tama, Iowa and began processing fed cattle in October 2003. This is a partnership with American Foods for operation of plant and beef sales.	Started in October 2003 so too early to determine.

[7] U.S. Premium Beef purchased Farmland Industries' share of National Beef when Farmland Industries went bankrupt.

Most recent producer-owned firms are formed under what is referred to as new generation cooperative legal forms of business structure. These firms are more closely aligned with an investor-owned firm than traditional cooperatives. A fundamental difference between new generation and traditional cooperatives is a linkage between producer capital contributions and product delivery rights under the new generation business structure. Essentially under this new generation structure a group of producers get together to jointly own a company that slaughters and processes beef. Such firms require capital investment and delivery commitments by producer-owners.

Numerous questions must be assessed carefully by producers considering building or operating a slaughtering and/or processing plant. How does this ownership help further the objectives they are trying to accomplish? For example, does plant ownership enhance the opportunity to be a high quality, food safety assured world beef supplier? Will such a venture improve vertical coordination? Will it provide increased information flow? Will such a firm be able to compete effectively in global markets? Can such a venture generate sufficient returns to justify the risk? Substantial capital, financial risk, strategic, and operational issues need careful consideration before such a large and long-term fixed asset investment like packing and processing are undertaken. None-the-less, there are examples of groups of producers that have been successful in implementing such a strategy. At this point, my recommendation is to keep this possible venture on the table for discussion, but many questions need careful consideration and a comprehensive feasibility analysis would need to be completed to more fully evaluate potential success.

Differentiate through Product Attribute Enhancement

Product Branding Strategies

One product attribute that surfaced as important to most of the industry participants interviewed was the need for branded beef products. A product brand is a combination of a name, phrase, symbol and/or design that identifies the product. Several motivations exist for branding beef. First, branding allows one to differentiate the product from competitors. This transforms the good from a commodity to a product that might be positioned for differentiated pricing and targeted consumer markets (e.g., those who want tender assurances, increased food safety assurance, or beef produced without the use of synthetic growth hormones, etc.). Second, brands convey value. Consumers perceive branded products to be more reliable, to have higher quality, and reduce the possibility for purchasing faulty products. Brands carry an increased level of accountability of the brand holder and thus, can increase consumer assurance that the product meets standards portrayed by the brand. Third, branding builds loyalty. Building brand loyalty can increase profitability and repeat sales require considerably less advertising and market development expense than marketing to a new customer segment. Thus, branding can impact overall system profit for reasons other than simply receiving a higher retail price.

As brands are considered, several different types of brand initiatives and branded programs could develop. One possibility is a brand that is a national or provincial brand that promotes the industry based upon the character and environment of Alberta for example. Alberta already has considerable national and perhaps some international notoriety for its beef. How much brand equity is associated with the Alberta name though world wide (especially to key importers) is not clear. This is one issue that could use additional research. Such a geographic brand initiative would be one that would be marketing all players in the effort together. Western Canada has several attributes that lend it particularly well to such a brand strategy including ability to market beef produced in a pristine environment, with blue skies, mountains, clear streams, and cattle grazing in rolling large open prairies. Taken together these attributes present a pleasant feeling about the product for potential consumers. If marketed aggressively, this brand effort could have appeal.

A second brand strategy is for a brand that is more focused on a particular product line and is more aligned with a particular dimension of the beef industry and not a national or provincial brand effort. Several examples exist in different forms. For example, producer type brands like Spring Creek Premium Natural Beef or Sunterra Beef is one possible direction. Processor brands like Sterling Silver, Hormel Always Tender, or Tyson are another example. Still a third branding approach is that of major retailers like Safeway Select or Safeway's Lucerne. There are also embedded brands where for example a food service establishment with its own name brand serves Certified Angus Beef or Certified Hereford Beef or some other branded product. Which of these brand strategies is going to prevail? Each may have a place and each may be able to prosper if the appropriate target market is identified and developed. Further, brands that are unique to Alberta can still capitalize on the same strategies of presenting a pristine production environment as a national or provincial brand.

Small- and medium-sized operations are not likely to be highly successful branding beef products, especially on a national or global scale. Small niche local markets might exist for some producers, but these take considerable effort and expense to develop and nurture as well and are not widespread. Even for large cow-calf operations or feedlots branding products themselves represents a substantial challenge. Developing global relationships especially is expensive and these relations can be quite fragile if a food safety recall, BSE, or international policy and trade issues arise. Instead, it takes a concerted effort of many players working together to develop and sustain a national or a global brand.

So what is the likely successful brand strategy going to be for Western Canada? Will one strategy dominate? This depends upon how the brands are developed, what the attributes of the brand are (e.g., product quality or production protocol issues), and what the brand is attempting to accomplish. Likely, several will be successful and one strategy for the entire Western Canada beef industry may not necessarily be the best way to proceed.

A beef branding strategy will be most effective under the following conditions:

1. The branded product possesses superior attributes to competing products that at least a segment of consumers want. As one Canadian industry leader said, "continued striving for excellence" is what must be the driver behind a brand initiative.
2. Potential consumers are exposed to the brand and its product attributes so they will test the product.
3. The brand conveys both *product* quality and *process* attributes. If the brand is associated with both of these characteristics it has more likelihood of success. Product quality attributes means the product has guarantees on eating performance, e.g., guaranteed tender. Process attributes means a verifiable audit has been completed on the production process. For

example, USDA Process Verified (figure 6) is one method used to verify various production processes for U.S. beef. Verification needs to be done by a trusted independent third party.

4. Full animal and meat traceability systems from consumption to conception would enhance food safety assurances for branded Canadian beef products.
5. The brand must have sufficient continuous volume to meet demand for the scope of consumer it is targeting.

Figure 6. USDA Process Verified Label

Despite modest growth that is occurring over time in grid sales in Western Canada and brand initiatives that appear to be growing, are these together enhancing value-chain alignment? There are several reasons this question arises. Changing value signals over time have occurred where once yields drove value, this changed to marbling and quality. However, with processor brands this could be reversing back more to yields. Canadian packers that were paying premiums for AAA quality grade cattle have realized the need to reduce the premiums they were paying because the market for the higher quality Canadian beef has not fully developed (especially by Canadian consumers). To get quality premiums back up, markets for high quality beef must be further developed.

These meandering value signals are especially problematic for cow-calf and seed stock producers whose genetic selection decisions are long run in nature and appropriate signals need to have long run focus. Large processors have large supplies of varied meat qualities and they already have sophisticated technology that can sort meat by various quality metrics and further process cuts that are of lower quality and add value to the meat. As such, they may be satisfied with buying cattle on averages, sorting them in their operations, and adding value to the products with the intensity of processing that is needed. This strategy may work well for them. However, this is not a strategy that is consistent with overall industry growth or prosperity. Such a strategy removes incentives to produce beef with the quality attributes at least some consumers demand and as a result the overall quality of beef in the market place will decline. Such a strategy is what caused major beef demand declines observed over the past 20 years. Remember, the consumer is in the driver's seat.

Develop Additional International Markets

Vulnerability to U.S. Market

The Canadian beef industry grew primarily as a result of increased exports to the U.S. This growth in the U.S. market for Canadian beef helped facilitate expansion and prosperity in the industry. However, it also made the Canadian beef industry vulnerable to U.S. market conditions and especially to U.S. trade policy. For example, country-of-origin labeling in the U.S. has created considerable concern regarding U.S. market access for Canadian beef.

Although, exactly how country-of-origin labeling will play out is not entirely clear, implications for Canada are not positive. U.S. retailers are already showing reluctance to purchase Canadian-sourced beef as they prepare for country-of-origin labeling. Increasing the number of countries where significant shares of Canadian beef are exported to will help insulate the industry from changing economic conditions and especially trade policy in any one country. Nonetheless, the U.S. market will likely be an important market for several reasons. First, logistically Western Canadian beef enjoys a comparative advantage in supplying the U.S. west coast market relative to Central U.S. plants. Second, U.S. global economic and political power at times exerts substantial influence on world trading partners. As such, efforts toward opening beef and cattle trade with the U.S. needs to be continually vigorously pursued.

Identify Markets with Growth Potential

International markets with greatest growth potential need to be identified and cultivated. Rising consumer incomes, trade liberalization, and changes in meat shipping technology have greatly increased opportunity for international meat trade. The competitiveness of international meat markets will require relationship building to gain new global customers. One challenge of competing in the world market is that importing countries tend to prefer certain beef cuts (not entire carcasses) providing an advantage to countries with large domestic markets.[8] This makes it a challenge to find markets for more portions of the carcass in different places for a country with a small consuming population relative to beef production like Canada.

Pre-Emptive Management of Animal Health and Food Safety

Canada beef must take the lead in being a food safety leader to demonstrate to the world that the BSE event was an isolated incident. The animal traceability system places Canada ahead of many major exporting countries. However, Australia, the leading beef exporter, plans to have complete meat traceability in the near future. Canada would be wise to first enhance animal traceability so that it can trace the animal to all farms where it has resided, not just to the ranch of origin. Following that, full meat traceability needs to be further researched and to the extent possible, developed. Procedures for product handling and pathogen and other food safety concern testing to assure safe products is essential to gaining world trust, assuring open world markets, and consumer acceptance. A critical factor as animal health and food safety standards further develop in Canada is that standards of the international customer are what the industry will need to meet, not just those of Canadian consumers. The burden of satisfying international standards and requirements exceed that of meeting domestic consumer demands.

[8] Dyck, J.H. and K.E. Nelson. *Structure of the Global Markets for Meat.* U.S. Department of Agriculture, Economic Research Service, Agricultural Information Bulletin Number 785, September 2003.

Strengths, Weaknesses, Opportunities, and Threats

As strategies to enhance value-chain alignment and the goal of being a high quality safe world food supplier are considered, it is important to assess strengths, weaknesses, opportunities, and threats facing the Canadian beef industry as it relates to this goal.

Strengths

Several strengths of the Western Canada beef sector were revealed in discussions with industry focus groups that are particularly relevant to value-chain alignment. They include:

1. Cattle breeds are more homogeneous than in the U.S. and this makes cattle and beef more uniform in size and quality overall.
2. Canada's sophisticated animal identification system with trace back to the ranch of origin is much advanced relative to U.S.
3. On-farm food safety protocol is strong.
4. Small geographic area in Alberta places producers and cattle in nearer proximity to each other with more similar climatic conditions compared to highly diverse and decentralized production in the U.S. Decentralization like the U.S. industry causes lack of uniformity in beef in producer management practices, and as a result, lowers beef quality.
5. Cattle feeding is advanced with modern facilities, wind fences, advanced nutrition management, and feeding of Vitamin E.
6. Packing plants are modern state of the art facilities.
7. Transportation system for cattle and beef to and from the U.S. is an advantage especially to the west coast.
8. People are willing to make changes and they have a desire to excel. Producers are willing to take risks for profitable ventures. There is an entrepreneurial spirit in many Western Canada producers.
9. Producers are much better informed about international trade and global events and how these impact their industry than many producers in the U.S. for example.
10. Cattle are raised in the pristine environment that enables a good marketing image.
11. Domestic Canadian consumers have shown tremendous support to the industry, especially following the closing of export markets.
12. BSE event made people more aware of interrelationships in the industry and the industry's shortcomings.
13. Cost of producing beef in Canada compares favorably with U.S. most years.

Weaknesses

1. Lack of global market access following BSE event has been a major problem. How long will it take before Canadian beef can regain market share in foreign markets? This may take a long time as retailers are reluctant to purchase Canadian product because of the BSE event and country-of-origin labeling issues looming.
2. Many operations are not interested in enhancing the beef value chain because the beef segment is such a small part of their business. They are satisfied operating in a commodity business.
3. Information on quality of cattle is not getting back to cow-calf producers and often not even to cattle feeders.

4. Cow-calf producers often do not want to retain ownership in cattle much beyond weaning because of cash flow and risk considerations and as such they do not retain vested interest in how their cattle perform up the value chain.
5. The current extremely depressed value of cull cows and bulls is a significant problem longer run if not resolved.
6. Trust among various industry players has decayed some over time.
7. Value-chain signals that are being sent have not been consistent over time and they may be changing again.
8. The Canadian fed cattle and beef markets are vulnerable to changes in U.S. laws like country-of-origin labeling.
9. Lack of young and well-trained talent entering the Canadian beef industry.
10. Industry investment since BSE is strained and investors are very cautious because of increased risk.

Opportunities

1. A high quality, assured safe beef product has considerable global market potential.
2. Numerous niche beef markets exist globally and Canadian producers are well-poised to target production for some of these particular markets. These need to be identified and aggressively pursued.
3. Canadian producers are ready for change and many will embrace and adapt production, management, and marketing to a new environment if it shows promise.

Threats

1. If another bovine with BSE were found in Canada this could significantly reduce opportunities for global beef market access for a long time. As has been seen recently, even additional animals infected with BSE discovered in Japan threatens Canadian beef market access.
2. Further strengthening of the Canadian dollar will make Canadian beef and cattle more expensive to the U.S. and reducing global demand for Canadian beef.

Recommendations

The following summarizes recommendations developed from this study to enhance supply chain alignment in the Canadian beef industry:

1. **Develop an Industry Vision Statement.**
   a. Determine where commonalities and differences of opinion exist between producers, packers, and other key industry participants.
   b. Educate and communicate information to entire industry of what is needed to be a competitive world supplier.
   c. Facilitate increased interaction between multiple stages of the industry – consumers, retailers, purveyors, processors, packers, feedlots, feeder suppliers, cow-calf producers, and genetic suppliers.

2. **Promote and cultivate alliances that enhance vertical alignment.**
   a. Be consumer driven at every stage of production, processing, and merchandising.
   b. Increase vertical cooperation.
   c. Utilize a differentiated pricing system where price reflects value.
   d. Use technology to increase objectivity and accuracy of value measures.
   e. Increase information flow at every stage from retailer back to producer.
   f. Carefully consider whether vertical integration (e.g., producers owning packing plants) enhances accomplishment of industry goals.

3. **Differentiate through product attribute enhancement.**
   a. Food safety protocols/verification.
   b. Investigate process verification strategies.
   c. Enhance animal identification system for full traceability from conception through consumption.
   d. Develop Canadian branding strategies.

4. **Develop additional international markets.**
   a. Vulnerability to changes in U.S. laws like country-of-origin labeling provides incentive for Canada to pursue other markets.
   b. Determine markets with growth potential.

5. **Manage animal health and food safety concerns on a pre-emptive basis.**
   a. Appropriate industry and governmental groups engaged at appropriate levels.
   b. Develop production practices that are more effective in managing herd health.
   c. Develop processing and food handling procedures to reduce food safety risks.

Appendix A. Canadian Beef Industry Focus Group Members

*Bruce Bass, Tyson Fresh Meats, Inc., Head of Cattle Procurement – Packer
*Ken Bull, Excel Corporation (Cargill), Head of Cattle Procurement – Packer
Marshall Copithorne, CL Ranches Ltd. – Seed stock, Cow-Calf, Backgrounding, Feeding
*Anne Dunford, Market Analyst, CANFAX
Jim Hansen, Business Development Beef, Alberta Agriculture – Extension Service
Larry Helland, Helland Land & Cattle Co. Ltd. – Cow-Calf, Feedlot
Will Irvine, Calgary Stockyards – Cattle Marketing
G.K. Jim, Feedlot Health Management Services – Cattle Feeder
Ryan Kasko, Kasko Cattle Co. – Feedlot
Bernie Kotelko, Highland Beef – Feedlot
Scott McKay, Calberta Farms – Cow-Calf
Brian Morrison, Roseburn Ranches, Ltd. – Feedlot
*Lee Nilsson, XL Foods – Packer
Dave Plett, Western Feedlots – Feedlot
Doug Price, Sunterra – Cow-Calf, Feedlot – Retail
Bill Stewart – Cow-Calf
Wyett Swanson, Swanson Ranch – Feedlot
Richard Thiessen, Strangmuir Holding Ltd. – Feedlot
Weldon Thomson, Deseret Ranches of Alberta – Cow-Calf
Ben Thorlakson, Thorlakson Feedyards – Feedlot
Richard Wambeke, Diamond V. Ranch – Cow-Calf, Feedlot

* Indicates participant did not complete the written survey summarized in tables 1-3.

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