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Information and Learning

North American Red Meat Market Assessment

Toma & Bouma Management Consultants
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What does the future hold for Canada's red meat industry?

The purchasing power of the middle class in China and India is growing. With 1.3 billion people in China and another 1.1 billion in India, even a tiny hike in disposable income has significant implications for exporting nations. The middle class in these countries is predicted to reach 750 million by 2020 and Asian consumers are hungry for products produced in the North American market. To capitalize on this opportunity, some large organizations in the red meat business are already setting up joint ventures and small-scale operations in Asia.

In 2006, 14.8 million cattle and calves were raised on close to 86,000 farms and ranches across the country. With $6.5 billion in farm cash receipts, this sector contributes more than any other to the agriculture economy. Canadian producers exported 679,000 metric tonnes of cattle and beef to countries such as the United States, Mexico, and Hong Kong for a total value of $2.5 billion, still under the $4 billion mark set in 2002[1].

In the same year some 6,040 hog and pig farms across Canada generated about $4 billion in farm cash receipts. Canada's hog production was 30.9 million with export markets accounting for over 55 per cent of sales. Some 8,777,060 market hogs were exported. With 1,037,266 metric tons[2] exported to over 100 countries, hogs are a major food export. Pork product exports were valued at approximately $2.5 billion in 2006[3].

In 2005, Farm Credit Canada commissioned a North America Red Meat Market Assessment. Released in June 2006 by Toma & Bouma Management Consultants in partnership with the George Morris Centre, some of the information contained in the study is dated as the industry has evolved. However, many of the findings are as relevant today as they were when they were first written.

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[1] Source: Statistics Canada, Canfax
[2] 1 metric ton = 1,000 kilograms/2,200 pounds
[3] Sources: Statistics Canada and Canada Pork Council

Cattle and beef overview

The Canadian cattle and beef packing industry is one of the most dynamic and growth-oriented sectors in Canadian agriculture. Its growth over the last 20 years rivals that of any agri-food sector. The industry has steadily evolved into an integral part of the entire North American cattle and beef complex, from cow-calf through feeding through packing. It is highly concentrated at the feeding and packing level, however remains segmented and fractured at the cow-calf level.

Like farm operations in other production sectors, the number of beef operations has declined over the years. However, the unique feature of this industry, in comparison to other sectors, is the geographic dominance of the west. Alberta, alone, is home to over two-thirds of the beef feeding and packing industry.

The main competitors to the Canadian industry in domestic and export markets are the U.S. and the oceanic countries and South America. As indicated by Canada's export and import performance, it is apparent that the Canadian beef and cattle sectors are among the most competitive in the world.

Hog and pork overview

The Canadian hog and pork sector is more geographically dispersed across the country than the cattle industry. At the same time, it is subject to the same forces of rationalization facing the cattle industry. There has been a significant decline in the number of hog operations of all types in all provinces. The only exception to that trend is the increase in finishing operations in Quebec. In general, Quebec's rate of decline of all types of operations has been significantly less than the Canadian average and the other three provinces of interest. The only exception is a larger than average decline in farrowing operations. There has been a material increase in the average size of all operations between 1996 and 2005 with many types more than doubling in size. Quebec has had the slowest growth in average size of operations by a large margin.

The last 15 years have seen major changes in Canada 's production systems. During the early 1990s, the industries were relatively small, ranging from 200 to 300 head, farrow-to-finish operations. Larger operations would have been defined as those with a thousand or more sows, and there would have been very few of those. In addition, Hutterite colonies were a significant part of the provincial production environment on the Prairies.

Today, the traditional farrow-to-finish operation is relatively important to the share of production in Ontario where up to half of the pigs are produced by this type of operation. This is a much smaller percentage than 15 years ago, and the remaining family and land-based operations are stable and competitive. More and more of Ontario's producers are part of larger production systems. They either own sows as part of a system that includes genetics, feed, veterinary, marketing, or they are involved in finishing. It is difficult to determine conclusively how many production systems are in Ontario and how large they are in terms of sow numbers. The Progressive Pork Producers (PPP) Cooperative has up to 160 members who market hogs to their own Conestoga

Meats plant. When PPP is included as a production system, informed industry sources suggest that production systems may comprise up to 60 per cent of the sows in the province. Within this segment, the 10 largest production systems would encompass well over 40 per cent of the sows in the province. The top five systems would have control over about one-third of the sows. The degree of control held by larger entities has continued to grow in Ontario.

In Manitoba it is estimated that the traditional independent farrow-to-finish operator represents about 10 per cent of the sows. The remaining 90 per cent, including the Hutterite colonies, is mostly very large hog production systems. In fact, the top three systems, Elite, Hytek and Puratone, control about 40 per cent of the sows in the province. Elite is estimated to have about 80,000 head in the province followed by 40,000 for Hytek and 27,000 for Puratone. The inclusion of the Hutterite colonies with the top three will account for more than 70 per cent of the sows. Alberta has evolved toward larger units, three site production systems and integrated or contracted relationships. At the same time this evolution was occurring, Alberta's sow base has grown very little. The sector is becoming increasingly concentrated without experiencing growth. Regardless of the reason for the lack of growth, larger production systems with 10,000 or more sows have not taken root to the same degree as they have in Manitoba and Saskatchewan.

Markets and marketing

The red meat and livestock markets in Canada are primarily characterized by open markets and adherence to the general laws of supply and demand. With regard to price discovery and price determination in Canada, the first point to note is that from the farm through to the retail meat counter, Canadian prices are determined by U.S. prices due to the ability to arbitrage in an open North American market. Secondly, the exchange rate plays a direct role in commodity pricing in Canada. There is a highly-correlated inverse relationship between the exchange rate and cattle or beef prices.

Without question, the most important point to note is the overwhelming significance of export markets. Both the beef and pork industries export over half of the total product. While these industries have often successfully sought non-U.S. export markets, they are very much North American based. With that noted, the growth and development of the Canadian red meat industry is tied to the fortunes and prospects for export markets, whether in the U.S. or abroad.

The domestic markets for pork industry have been characterized by the stability of consumption and demand, beef demand and consumption has declined precipitously over the last 20 years, the industry has enjoyed stability since 2000.

Consumer markets for red meat

Generally speaking, on a per capita basis the demand for beef has declined over the past 30 years. However, it has stabilized and even increased somewhat over the past five years. During the BSE crisis, Canadian beef consumption actually increased. Pork demand has remained fairly constant for the past 10 years.

Most of the growth in the Canadian beef and pork industries can be attributed to the growth of exports. In 2002, Canada was the world's fourth largest exporter of beef, with more than 75 per cent going to the U.S. Over 50 per cent of total Canadian pork production is exported, with one-half of that volume destined for the U.S. Japan is Canada's next largest customer. In 2004, Canada was the world's largest pork exporter and has just been surpassed by the U.S.

The nature of consumer demand for red meats is undergoing change. Recent trends in consumer purchasing illustrate that the following attributes are increasingly important: (1) the growth of brands, (2) meat with a story,

particularly beef, (3) nutritional information in the form of detailed labels, (4) the growth of specialty products, (5) a focus on convenient or easy-to-serve products and (6) the increased sophistication of retail markets where suppliers are increasingly delivering case-ready products ready for sale.

Overall there is a growing interest in qualitative variables such as where and who has raised and processed the product. And there are increased demands for natural, organic and unique products.

Processors in the red meat market fall into one of two categories:

- the large-scale mega-plant that competes on the basis of volume, low cost and the ability to sort and market products according to quality and a wide range of large-scale retail, institutional and food service buyers
- the specialty niche or regional plant that competes on the basis of supplying a unique difference that is not easily copied

The vast majority of the red meat market continues to be supplied by mega-plants. The specialty niche plant is more likely found within the beef sector, where numerous small-scale operations marketing branded products with a story have emerged. This phenomenon is less common in the pork sector where processors already have considerable branded product experience and the attributes of farmer-raised meat holds a lower profile. Significantly, beef mega-plants are rapidly introducing brands including natural and organic products, which will impact the competitiveness of the smaller players.

Potential for competitiveness and expansion in North America

The Canadian red meat industry has enjoyed considerable growth over the past 20 years. However, the industry is losing competitive position in relation to the U.S. for several reasons:

- declining competitiveness of Canadian feed grains such as barley versus U.S. corn. Consequently, the cost of feeding animals in Canada is higher
- the dramatic increase in the value of the Canadian dollar over a short period of time including the last four years versus a 25-year period of decline
- growing concerns with price discovery and the widening basis between U.S. prices and Canadian prices
- the relatively few beef and pork processors in Canada, making for a less robust market for live animals

Overall, Canada is maintaining its competitiveness as a supplier of beef calves and feeder pigs. Large numbers of both these classes of livestock are being exported to the U.S. for finishing and processing.

Over the past 20 years, the U.S. pork industry has experienced a dramatic restructuring. The change has been led by the emergence, and now dominance, of large-scale integrated pork production systems. The changes have transformed the U.S. into one of the most competitive pork industries in the world. The fact that U.S. pork exports have increased for 15 consecutive years is an affirmation of this competitive position.

Restructuring has also occurred in the Canadian hog industry, however, not to the same degree and level of integration as in the U.S. Maple Leaf Foods has an interest in more than 122,000 sows, however is currently seeking to reduce these numbers due to poor financial performance. On the other hand, a consortium comprising Big Sky Farms, Hytek and Olymel is in the final planning stages to construct a new pork processing plant in Winnipeg.

The structure between the U.S. and Canadian beef markets is more similar, albeit the U.S. has a more competitive packing sector. The Canadian system has developed a more consistent genetic base in the cow herd, a result of cross-breeding programs and selection pressures that arguably have been more rigorous than those in the U.S. Further, there is a climatic factor. Canadian beef breeds are typically northern cold climate breeds whereas much of the southern U.S. cow herd including Texas, Oklahoma, Arkansas and much of Kansas, has a Brahman influence to withstand the summer heat.

The U.S. processing sector operates more competitively than Canada's. They have access to a larger low-cost labour pool, predominately Mexican migrant workers. Particularly in the case of the pork processing sector, they have access to large numbers of livestock enabling double-shifting. There are large scale retail, food service and institutional buyers.

With respect to expansion, new growth will occur in two areas:

- Export markets, most likely Pacific Rim countries. Competition for these markets is fierce and coming from several low cost competitors such as Australia, Brazil, Argentina, U.S.
- Emerging quality markets including natural, organic or other qualitative attributes such as origin, region or animal welfare friendly. This represents more of a shift in demand than a growth in demand.

Clinically speaking, the most advantageous location for expansion in the beef industry is Western Canada due to the presence of the large cow-calf herd located in Saskatchewan and Alberta, the supplies of feed grains and a favourable climate characterized by low humidity and generally dry conditions to finish cattle.

Western Canada is also favourably suited for expansion of the hog industry for similar reasons. However, the ultimate location for expansion is also heavily influenced by the inherent efficiencies that can be achieved by integration or co-ordination. A critical mass of production units in combination with a major processor with access to feed grains located in any region of the country with access to feed grains can operate very competitively. This has been demonstrated by such states as North Carolina and Oklahoma, where neither state has a feed grain base.

Perhaps the most critical determinant for the ultimate location of new livestock production and processing facilities will be the environmental factor. Clearly, areas of high population such as lower Quebec or southern Ontario will continue to experience more resistance to livestock industry expansion. Western Canada is also experiencing similar resistance, however, relative to the agricultural land base and human populations, livestock densities are small. The likelihood of successfully expanding the livestock industry is much higher in the Prairie provinces.

The capacity for growth and the conditions enabling production will not drive the expansion of the livestock industry. New growth will only be fuelled by new markets and increased consumer demand. This will not be easy to come by. In fact, the Canadian red meat industry is struggling to utilize the available processing capacity and remain competitive in its markets. This is true of the beef industry and especially true of the hog processing sector where no plant has yet achieved a double shift.

Implications

Since the BSE crisis, there has been considerable discussion within the beef industry regarding the need to expand capacity in the processing sector. Most of this pressure comes from the need to slaughter cows, since over-30-month animals as well as meat products cannot be exported.

However, since 2003, packer capacity has increased substantially and is now in the order of 97,000 head per week, up from a previous level of 70,000 head per week. This represents an increase of 27 per cent. Slaughter levels in 2006 averaged around 60,000 to 65,000 head per week and have exceeded 70,000 head only once. Thus, the calls for more capacity without further qualification must be considered carefully.

Figure 1 identifies some of the key attributes and critical success factors associated with the mega-plant and the specialty or niche plant. This is presented in the following chart.

Concluding Remarks

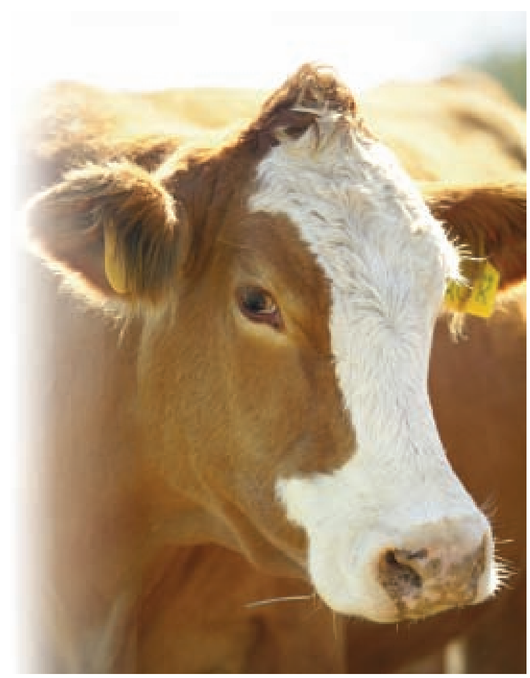
Overall, it is difficult to conclude that there is an immediate or significant opportunity for the introduction of any new mega-plants in Canada. In our view, there are two key reasons:

- lack of sufficient livestock supplies such as pork and beef, to provide the necessary volumes
- current overcapacity within the existing processing sector

Furthermore, there are no immediate under-supplied markets, domestic or export, that represent a quantum leap in demand to warrant new large-scale capacity. Nor can it be argued that current capacity is old technology. Both IBP and Cargill are modern plants as are the plants operating within the hog industry.

The opportunities that offer some potential are specialty or niche processing plants with targeted marketed strategies such as natural or organic or some other regional or breed emphasis. This is most likely to occur in the marketing of beef. However, this strategy has two major risks:

- a lack of marketing savvy, brand management and consumer marketing. The importance of this experience cannot be overstated and it is often lacking on the part of proponents.
- rapidly-developing branded programs on the part of the mega-processor.



[1] Weekly Livestock Market Review – 2006

Figure 1: Key attributes and critical success factors associated with processing plants

Attribute	Mega-Plant	Specialty/Niche Plant
Plant size	Plants need to be comparable in size to the major plants in the U.S. (beef 5,000 head or more per day, pork 15,000 head or more per day).	Small-scale operations will vary in size depending upon market position and strategy.
Management	Mass production management style. Ability to manage large work force, deal with high levels of turnover and procure large daily volumes of livestock, emphasis on efficiency and low cost, overall a high pressure, intense working environment.	Small-scale operations will vary in size depending upon market position and strategy.
Labour requirements	Requires ready access to large labour pool, expect high turnover each year, can be as high as 100 per cent.	Small but skilled workforce who are committed to creating value.
Livestock supplies	Ready access to large supply of livestock, pork plants will likely have a high proportion of owned or contracted production, beef plants will require 15 per cent to 30 per cent of owned cattle and the presence of buyers able to contract with area feedlots.	Requires a distinct and managed supply chain with defined production protocols. The supply chain should be firmly established with a very clear expectation of the number of animals that will be delivered in set time frames.
Customer base	Large food retail, food service and institutional buyers.	Very defined customer base with distinct requirements and built on strong interpersonal relationships.
Other characteristics	Emphasis on high volume and low cost.	Emphasis on value creation and brand management.
Major competitive threat	Loss of a major customer to a competitor. Competitors able to operate with a lower cost structure due to new efficiencies or better procurement programs.	Inability to maintain brand differentiation. Competitor who is able to deliver new attributes or deliver similar product at a lower price.
Comments	Overall a low margin business.	Higher margin business built on meeting customer expectations.

These will provide considerable competition unless buyers are extremely discerning or loyal to the niche processor.

Niche processing within the pork industry is less likely to occur since pork quality across the industry is already highly consistent. In addition, the marketing of branded products is already well-established in the pork processing industry.

Finally, there are a number of specific challenges that face the Canadian livestock production and processing industry. These include:

- feed grain competitiveness and the ability of the Canadian feed grains to compete with U.S. corn
- price discovery and the competitiveness of Canadian buyers versus their U.S. counterparts
- currency and exchange risks and the impact on prices paid for Canadian livestock and meat products
- trade and animal disease risks and the potential loss of market access
- environmental risks and the increasing difficulties associated with locating production and processing operations

Perhaps the most important question to ask when considering expansion in these sectors is whether the proposed investment is market-driven or supply-driven? If the response is the latter, then extreme caution on the part of the investor is advised. If the response is the former, a careful and detailed assessment of the market opportunity is imperative.

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Prepared for:

Farm Credit Canada
1800 Hamilton Street
P.O. Box 4320
Regina, SK S4P 4L3
Phone: 1-888-332-3301
E-mail: communications@fcc-fac.ca
www.fcc-fac.ca

Prepared by:

GEORGE MORRIS CENTRE

Toma & Bouma
MANAGEMENT CONSULTANTS

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