



GEORGE MORRIS CENTRE

Canada's Independent Agri-Food Think Tank

**Market Opportunity Analysis
for the Canadian Lamb Industry**

Final Report

Prepared for: Canadian Sheep Federation

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Date: November 20, 2006

Executive Summary

The purpose of this report is to provide a market opportunity analysis for the Canadian Sheep Federation and identify industry readiness for capturing those opportunities; then to develop recommendations for how the Canadian lamb industry can grow in accordance with market demands. The opportunity analysis will cover all levels/sectors that together comprise the Canadian lamb industry. It will begin by identifying consumers, customers and stakeholders' current perception and level of satisfaction felt toward the Canadian sheep industry compared to its major competitors.

The report compares the apparent effectiveness of current domestic supply arrangements for meeting market opportunities compared to a series of industry based international production and marketing initiatives that are deemed to have achieved a level of success that significantly surpassed the effectiveness of previous initiatives. This process includes an assessment of the relationships that exist between industry stakeholders. Consideration is then given to whether the same approach could likely be adopted by the Canadian sheep industry in order to more effectively respond to the drivers of change, thereby taking advantage of market opportunities.

Today's consumers spend less time preparing and cooking meals than in the past. They increasingly seek value-added products or ready to cook meals in order to lessen effort in preparation and/or cooking time (Hughes, 1999; 2004). Value added products command a higher price for two main reasons. Firstly, they are costlier to prepare. Secondly, they offer greater value through saving consumers' time in preparation and/or offering greater consistency and a pleasurable eating experience. A third reason is better presentation and perceived added value to a potential consumer. According to McDonald (2004) the chicken industry has been a leader/trend setter in value-adding meat. There are many value-added chicken products available that are heat and serve, including marinated breasts or breaded chicken fingers. Other commodities such as beef and pork have been relatively slower to develop these types of products. One consequence of that is losing market share to the poultry industry.

A review of the literature pertaining to the sheep and lamb industries of Canada, New Zealand, Australia and the United States, identified significant gaps between their relative capabilities and available resources. Furthermore, the speed at which the gaps are expanding appears to be increasing. Particularly when comparing the Canadian and New Zealand sheep industries. Of the four sheep industries analyzed during this review, New Zealand appears the most market-focused and innovative. Improvements in productivity, meat quality, processing, transport, and promotional capabilities have occurred quicker in New Zealand than any other country researched. This includes in comparison to their closest competitor, Australia.

Since the abolition of income support for producers and the deregulation of much of its agricultural industry during the 1980's, the New Zealand sheep industry has changed radically. In two decades, fewer sheep are producing a similar number of lambs to before, and meat rather than wool is producers' primary source of income (Sheep & Wool New Zealand, 2006). Improvements in genetics and flock management have improved productivity per ewe, and consistency in terms of quality, value and yield of meat per lamb (Travis, 2006).

These improvements, combined with greater coordination between processors and producers, and innovations processing, packing and transportation practices, and the adoption of new business models, have seen the viability of New Zealand's sheep and lamb industry increase markedly over the last decade (Nelson, 1996). One example of developments in processing is the widely used practice of using innovative technology to accurately grade meat against

specifications that reflect known market requirements. The result: improvements in the quality, consistency and value of lamb produced by New Zealand; and the ability to collect and share information with suppliers in order to improve flock management and breeding activities.

The Australian sheep industry is becoming increasingly focused on producing consistently high quality lamb that meets the demands of its target markets and provides a pleasurable eating experience. Industry structure and practices have changed radically over the last decade. As in New Zealand, the Australian federal government invests considerable resources in initiatives such as Meat and Livestock Australia to encourage producers, processors, foodservice and retailers to work together for mutual benefit.

To encourage industry to continually improve their business model by sharing results of international market research, fostering constructive communication across the entire the industry, and working together strategically for mutual benefit, the federal Australian government funds R&D activities on a matching basis with funds provided by industry through individual investments and check-off levies (MLA, 2006c). Investments are targeted at improving operations and activities at all levels of the chain, from on-farm production through to processing and marketing of lamb and all sheep-related products (MLA, 2006b). MLA's emphasis on encouraging industry to continually improve business models is considered a highly effective method for stimulating the Australian sheep industry to continually evolve in a coordinated fashion and work strategically to capture a greater share of the international lamb market.

The research findings suggest that much of the Canadian lamb industry currently follows practices that limit its ability to take full advantage of market developments and opportunities, particularly compared to international competitors such as New Zealand. If the expected increase in competition from the Australian lamb industry materializes, the future competitiveness of Canada's lamb industry may rely more than ever on developing the ability to produce and supply consistently high quality lamb graded according to tightly controlled specifications that reflect specific changing market demands. More than ever, one size will not fit all markets. Succeeding from this change in a profitable and sustainable manner will require much of the Canadian lamb industry to adopt more sophisticated production, processing and marketing techniques than is currently the case.

In percentage terms, lamb clearly appears to have greater opportunity for growth than any other red meat sector; particularly in terms of what could be achieved in the next decade. The extent of market opportunities and the accuracy of the findings were underlined by the almost uncanny resemblance between results attained from the consumer and retailer / foodservice research. By and large, they clearly understand their consumer market. This finding alone justifies the need for the Canadian lamb industry to find ways to work with retailers and foodservice to develop commercially sustainable business models for supplying Canadian lamb to the consumer market.

Even without the addition of any extensive marketing or promotion of Canadian lamb, a number of respondents estimated that the overall opportunity for lamb is double the current scale of production. As seen from the economic modeling, achieving this on a financially viable footing given current costs of production will require investment in value-added products and marketing/supply initiatives. The level of challenges that exist will however likely lead to the Canadian lamb industry experiencing growing pains as it wrestles with securing market opportunities and reacting to the increasing competitiveness showed by international lamb suppliers.

Lessons learnt from the experiences of other nations and sectors of agriculture is that the suppliers that do not choose to follow more strategic business approach than has traditionally been reflective of the lamb industry may well miss opportunities to retain their long-term profitability; and even market share in the face of an increasingly discerning consumer market. It therefore stands to reason that, if Canadian suppliers do not develop the capabilities necessary to serve the growing Canadian lamb market and take advantage of opportunities that exist ahead of their increasingly capable international competitors, the industry could loose a phenomenal commercial opportunity.

The Canadian sheep and lamb industry may therefore be at a crossroads. Failing to earnestly invest the resources and determination into capturing market opportunities may lead to the industry slipping further in terms of its commercial capability compared to New Zealand, Australia, and even potentially the United States. It is foreseeable that a time will occur when that gap could become so great that Canadian lamb is relegated to predominantly niche markets and loses the current empathy that the majority of consumers have for domestically produced lamb.

A paradox already exists between empathy that many Canadian consumers express towards domestically produced lamb and their purchasing behaviour. Currently, in large part this is due to the domestic industry's inability to consistently supply lamb in terms of the required quality and/or volume. Additional loss of commercial capability compared to international competitors would extend the gaps that already exist. Particularly given Australia's growing emphasis on producing feedlot lamb that may taste more like Canadian than New Zealand lamb, it is not inconceivable that any disparity could reach the level where many consumers, more familiar and satisfied with imported lamb, begin to shun Canadian lamb: regardless of its availability.

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1.0 Introduction and Background

The lamb industry is changing globally. Smaller national flocks are producing larger volumes of lamb, produced to suit market demands and traded on a wider international scale than ever before. Reduced government intervention has led to sheep producers and processors seeking ways to capture added value from the marketplace, and has placed greater emphasis on accessing information surrounding consumer demands, then developing the capabilities required to act upon that information for sustainable competitive advantage.

Though domestic lamb consumption is growing (StatsCan: 2004), retaining market share and added value opportunities against increasingly capable international suppliers is a significant challenge facing the Canadian lamb industry. Developing a thorough understanding of consumer expectations toward lamb, along with drivers of choice, augmented with insights of how producers can work effectively with processors, retailers and foodservice operators to supply desired lamb and lamb products to consumers, is critical to addressing these challenges and maintaining a prosperous Canadian lamb industry.

The following analysis of challenges facing the Canadian lamb industry and the industry's readiness for meeting identified market opportunities, begins with a review of current literature surrounding changes in the global lamb industry. This is followed by a comparison of the Canadian lamb industry versus that of New Zealand, Australia and the United States. The literature review ends with an assessment of the readiness of Canada's lamb industry to take advantage of market opportunities in comparison to its most significant competitors, along with findings from research undertaken to identify consumers' current perceptions and attitudes toward lamb; and the level of satisfaction felt toward Canadian versus imported lamb.

Phase 2 of the project encompassed a series of consultations with industry stakeholders to further identify market opportunities and explore whether information was available to confirmed findings from the consumer research and literature review. The consultation process also sought to identify the needs of lamb customers (particularly retail, foodservice, primary and secondary processors), identify their perspectives of any constraints or challenges that they believed constrained the Canadian lamb industry in its ability to fulfill market opportunities. The same process was then undertaken with producers for the exact same reason. Combined with the research results from Phase 1 of the project, this process was aimed at providing an objective assessment of the effectiveness of the current structure and nature of the Canadian lamb industry relative to the resources and capabilities required to take advantage of market opportunities. The process will also allow an estimation to be made for the potential economic value that the market opportunities represent to the Canadian lamb industry and critical success factors that would be involved in maintaining an economically viable Canadian lamb industry.

Finally, a comparative analysis was undertaken to ascertain the current performance of the Canadian lamb industry in relation to identified market demands, customer needs, and major importers. The analysis sought to identify any performance and structural gaps that exist and which must most likely be bridged for the Canadian lamb industry to profitably meet market demands in order to protect market share on a sustainable basis. The results of this analysis fed into a series of high level recommendations for how the Canadian lamb industry can adapt in order to profitably capture market opportunities identified within this report.

2.0 Project Overview

2.1 Purpose and Objectives

The purpose of this report is to provide a market opportunity analysis for the Canadian Sheep Federation and identify industry readiness for capturing those opportunities; then to develop recommendations for how the Canadian lamb industry can grow in accordance with market demands. The opportunity analysis will cover all levels/sectors that together comprise the Canadian lamb industry. It will begin by identifying consumers, customers and stakeholders' current perception and level of satisfaction felt toward the Canadian sheep industry compared to its major competitors.

The objective of this report is to identify market opportunities versus current performance gaps in order to assist the Canadian sheep industry in moving forward and developing in the most effective and timely manner possible. It will provide Canadian sheep and lamb producers with the information necessary to develop the capabilities to benefit financially from taking advantage of market opportunities through strategic marketing initiatives.

The report compares the apparent effectiveness of current domestic supply arrangements for meeting market opportunities compared to a series of industry based international production and marketing initiatives that are deemed to have achieved a level of success that significantly surpassed the effectiveness of previous initiatives. This process includes an assessment of the relationships that exist between industry stakeholders. Consideration is then given to whether the same approach could likely be adopted by the Canadian sheep industry in order to more effectively respond to the drivers of change, thereby taking advantage of market opportunities.

Lastly, by placing the resulting information in a Canadian context, determined by geographic and resource availability, the report will gauge the likely effectiveness of each approach for assisting the Canadian sheep industry to meet the needs and opportunities presented by a changing industry.

The specific objectives of the project include the following:

- To determine consumer demographic wants and lamb usage patterns across Canada;
- To determine consumer purchasing drivers and determinants on a demographic basis;
- To understand the drivers of choice and consumer attitude toward Canadian lamb;
- To understand the factors influencing the purchase of Canadian versus imported lamb;
- To identify opportunities for creating higher value propositions and, thereby, enabling the Canadian lamb industry to capture increased returns;
- To assess the effectiveness of current Canadian lamb production and marketing arrangements by region, and compare against leading international suppliers;
- To identify supply channels and marketing arrangements that offer the Canadian sheep industry the greatest market potential – short, medium and long term;
- To determine how market and industry trends could impact the competitiveness of the Canadian lamb industry compared to international competitors;
- To compare, contrast and prioritize domestic and international market opportunities for Canadian lamb: and assess supply arrangements that could assist the industry in taking advantage of identified opportunities to increase the industry's value and sustainability;
- Based on the above, to carry out an assessment of the methods that the Canadian lamb industry could utilize to most effectively meet future challenges and marketing opportunities;

- To provide guidance for the Canadian lamb industry for taking advantage of identified market opportunities and encourage investment to achieve long-term sustainability;

2.2 Methods and Approach

To respond to the purpose and objectives outlined above, the research has been broken into four main phases. Phase one encompasses two components (1a & 1b), the results of which are contrasted in a summary (1c).

There are four phases to this study:

- Phase 1a: Literature Review
- Phase 1b: Consumer Research
- Phase 1c: Summary
- Phase 2: Consultative Process
- Phase 3: Comparative Analysis
- Phase 4: Summary and Recommendations

Each of the research phases are described in detail below.

Phase 1: Industry Analysis

Phase 1a: Literature Review

Phase 1a provides a broad analysis of the global sheep industry. Particular attention is given to countries supplying the Canadian lamb market. The analysis begins with a review of literature describing developments in the global sheep industry over the last decade. The review then provides a more in-depth individual analysis of the Canadian, New Zealand, Australian, and United States lamb and sheep industries regarding:

- Industry Overview
- Industry Structure and Governance
- Imports
- Exports
- Farm Receipts
- Lamb Consumption
- Marketing Channels
- Summary

The industry analysis is followed by a comparison of notable differences between the Canadian and other researched sheep/lamb industries. This is to identify factors that appear likely to limit the effectiveness of the Canadian lamb industry taking advantage of market opportunities compared to its competitors, given trends that are impacting the overall industry. Results of the literature review are presented in Section 3.0. This information presented also feeds into Phase 1c, which follows results obtained from the consumer research.

Phase 1b: Consumer Research

Ipsos-Reid's I-Say online consumer panel was used to collect detailed information on consumer attitudes toward fresh and value-added lamb. The research covered domestic and imported lamb purchased in retail stores and through foodservice outlets. Results were demographically

segmented by age, income bracket, geographic location, cultural background, age, socio-economic status, products consumed, place of purchase and/or consumption.

Specific insights gained from the research are described under the following headings:

- Consumption Patterns
- Purchasing Channels
- Consumer Segments
- Consumer Satisfaction
- Drivers of Non-Consumption
- Brand Awareness

Research results are presented according to the above format in Section 4.0. The questions asked of the consumer panel form appendix A. Detailed research results in PowerPoint format form Appendix B.

Phase 1c: Summary

Phase 1 research concludes with a comparison of major findings from the literature review and consumer research. The following framework is used to evaluate the overall findings:

- Market Opportunities
- Production
- Promotion

The overall information presented in this portion of the project feeds into Phase 2, the Consultation Process with key industry stakeholders. Phase 2 will provide a detailed insight into the perception that Canadian retailers, foodservice operators, distributors serving the foodservice and retail markets, and lamb processors (primary and secondary), have toward the commercial effectiveness of operations currently undertaken in the Canadian lamb industry; along with opportunities to profitably take advantage of market opportunities.

Phase 2: Consultative Process

The consultative process has been designed to identify the needs of customers (retail, foodservice, primary and secondary processors, etc.) and identify any constraints or challenges related to fulfilling market opportunities for Canadian lamb; particularly in comparison to international competitors. The process is expected to provide an objective assessment of the effectiveness of the current structure and nature of the Canadian lamb industry relative to the resources and capabilities deemed to be required to take advantage of market opportunities. It will allow identification to be made of capability gaps that need to be filled in order to enable added economic value to be gained from identified market opportunities; as well as insights into methods that customers of Canadian lamb suggest current gaps can be addressed.

A formatted questionnaire will be developed from information contained in Phase 1. This method will ensure the accuracy of information collected throughout the research phase. It will also provide detailed insights into the strengths, weaknesses, opportunities and threats affecting the future international competitiveness of Canada's lamb industry. Understanding the needs and challenges facing different stakeholders and the nature of relationships that exist between major players operating at each level of the industry will be critical to positioning the final recommendations in a way that encourages stakeholder buy-in, thereby maximizing the project's long-term value to the Canadian lamb industry

To ensure that a detailed synopsis can be developed of industry practices in relation to end market demands, the consultation process is constructed along lines reflecting the value chain analysis technique. That is, working down the chain in order to gain detailed understanding of the market drivers affecting the next level of the chain prior to undertaking the next set of consultations. The anticipated length of the interview will be 40 minutes, with a targeted response rate of 45-50 interviews/completed questionnaires.

The type of information that is expected to be collected during the consultation process includes:

- Location, production capacity, major suppliers, major customers, inspection status;
- Other meats processed or marketed, and comparative percentage of lamb to other meats;
- Marketing challenges and opportunities facing business: now and anticipated in the future;
- Perceptions of the current condition and characteristics of the Canadian lamb industry: and future challenges that the industry will likely have to contend with to increase market share;
- How pricing, quality, consistency of supply, packaging, and distribution impact operations;
- Differences between the needs/demands of retailers (by banner and target market) and foodservice operators (by banner and target market), and the impact on operations;
- Perceived drivers of customer and consumer demands, and expected future trends;
- Product, promotional, merchandising, or other marketing initiatives not currently available from domestic suppliers, though desired by customer / consumer market(s);
- Hindrances and barriers to sourcing or marketing higher volumes of Canadian lamb;
- Value-added opportunities not met by present supply and/or marketing arrangements;
- Challenges known to be facing major customers and/or suppliers;
- Extent of the information shared by customers / suppliers about their intended strategies, operational challenges, and market opportunities;
- Canadian vs. imported lamb production, and perceived strengths/weaknesses;
- Commercial drivers of sourcing from Canadian versus international suppliers.

Phase 3 of the project, A Comparative Analysis, contrasts and compare the tabulated results from “Phase 2: the Consultative Process” and “Phase 1: Literature Review and Consumer Research” in order to present a detailed analysis of the current state of the Canadian lamb industry compared to market opportunities. Identified gaps between production and processing capabilities, and consumer needs and wants, are examined in order to identify if a need exists to bridge performance gaps in order to capture long term market opportunities.

Phase 3: Comparative Analysis

To clearly identify challenges that the Canadian lamb industry will face in seeking to capture identified market opportunities against increasingly capable international competition, a Comparative Analysis was then undertaken to ascertain the effectiveness of operations occurring in the Canadian lamb industry compared to those of international competitors. Presented in Section 7, the comparative analysis portrays the extent of any performance and structural gaps that the Canadian lamb industry must likely bridge before it is will be able to fully benefit from anticipated market demands and protect market share on a sustainable basis.

Guided by tabulated results gained through the consultative process, an assessment was suggested of the extent of market opportunities available to the Canadian lamb industry, as well as methods adopted by lamb production and marketing operations residing in other jurisdictions and which already supply the Canadian market. This will include a series of suggested steps and strategies that could be utilized to enable the Canadian lamb industry to benefit from a greater ability to adapt to future industry requirements.

Results of the Comparative Analysis will feed into Phase 4: Summary and Recommendations.

Phase 4: Summary, Conclusions, and Recommendations

The final phase of the report, section 8, features an analysis of from where the greatest challenges to industry development are anticipated to occur, and why. Overall results and information from the literature review, the consumer research, the consultative process and the comparative analysis were then assessed to provide the Canadian Sheep Federation with a short list of high level recommendations for strategic initiatives that can lead to growth in the size, capability, and overall value of the market for Canadian lamb. The recommendations are laid out with justification for their importance and/or role in developing a sustainable and globally-competitive Canadian lamb industry.

3.0 Phase 1a: Literature Review of International Lamb Production and Marketing

Section 3.0 is a summary of the literature reviewed. Section 3.1 begins with an overview of the global lamb industry. Sections 3.2 to 3.5 describe the lamb industries of Canada, New Zealand, Australia, and the United States using the following structure: Industry Overview, Industry Structure and Governance, and Marketing Channels. Section 3.6 provides a summary of the findings from the literature review compared to the identified Canadian situation.

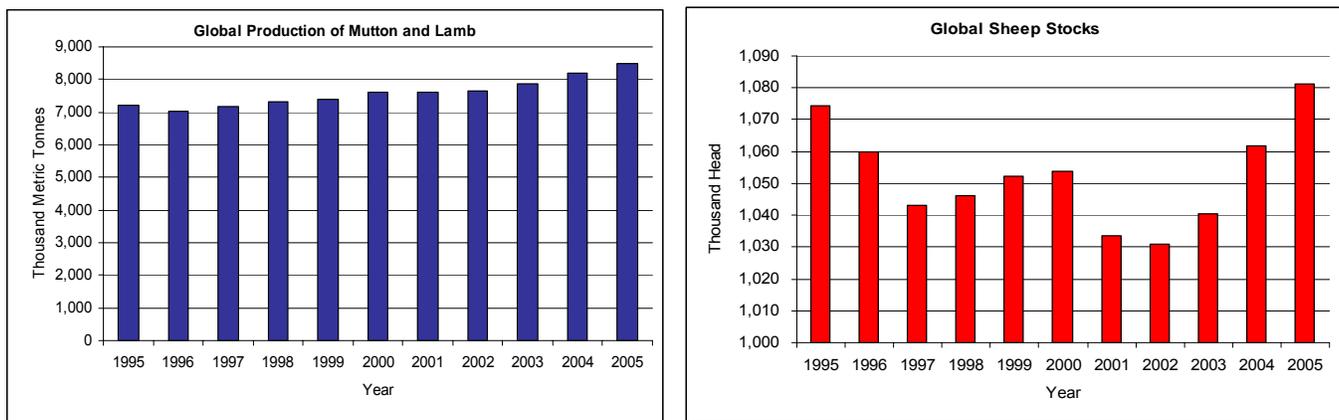
3.1 Global Lamb Industry

3.1.1 Production

The global production of mutton and lamb has remained fairly steady in the last decade. Though a slight decrease in global production occurred in 1996, annual production rates grew by an average of 1.7 percent between 1995 and 2005. The largest increase occurred between 2003 and 2004 when a 4.1 percent increase was observed. More recently production increased by 3.2 percent between 2004 and 2005.

Global sheep stocks have been less consistent than production. Figure 3.1.1 illustrates the total global stock of sheep, lamb and mutton from 1995-2005. Average growth in global sheep stocks between 1995 and 2005 was less than one percent (0.07 percent). In 1990, global sheep stocks reached a high (for the period of 1960 to 2005) of 1.2 billion head. While global sheep stocks numbers have since fluctuated markedly, largely due to droughts and disease incidents, increased productivity per ewe resulted in steadily increased lamb production - even during years that overall sheep numbers were reduced. Following a steady rise since 2002, in 2005 sheep stocks reached their highest level in a decade.

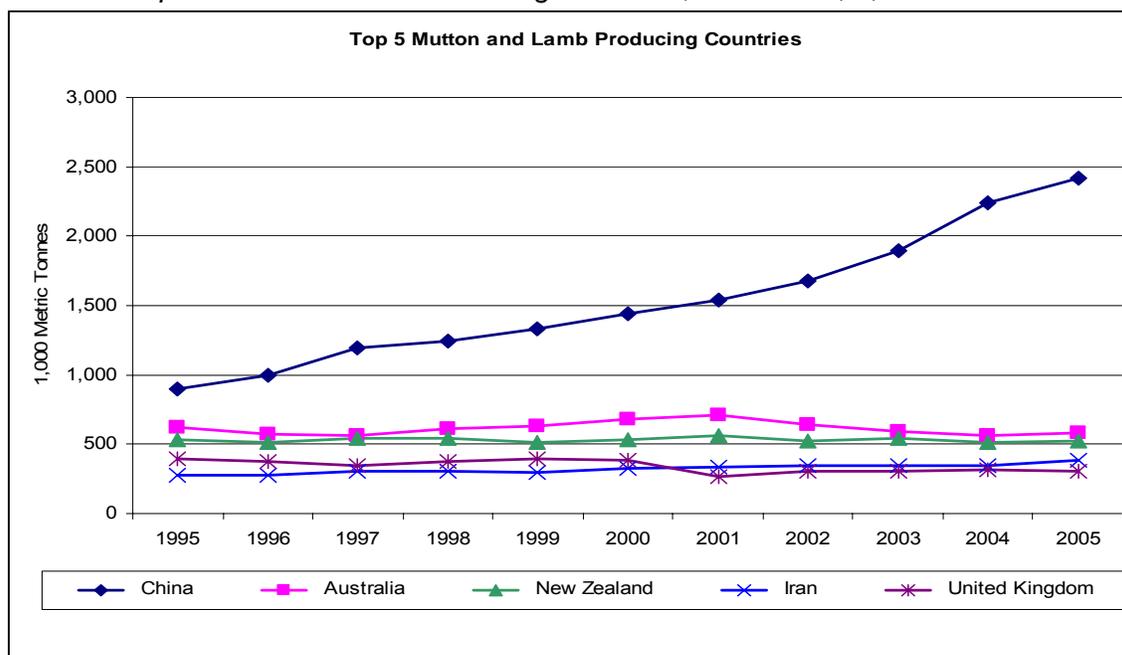
Figure 3.1.1: Global Production and Stocks of Mutton and Lamb, 1995-2005



Source: FAOSTAT data, 2006

Between 2000 and 2005, the top five lamb and mutton producing countries averaged over 46 percent of total production. China is by far the largest producer of lamb and mutton, producing well over 2.4 million metric tonnes in 2005. The second largest producing country in 2005, Australia, produced only 0.58 million metric tonnes. New Zealand, Iran and the United Kingdom round out the top five lamb and mutton producing countries. Figure 3.1.2 illustrates the comparative volume of production of the top five lamb producing countries.

Figure 3.1.2: Top Lamb and Mutton Producing Countries, 1995-2005, 1,000 Metric Tonnes



Source: FAOSTAT data, 2006

Table 3.1.1 shows the average production from 2000-2005 for the top 10 lamb and mutton producing countries. The average growth rate for production between 2000 and 2005 was largest for China and the Syrian Arab Republic at 10 percent and 7.2 percent respectively. Interestingly enough, Canada, although not one of the top ten producers, had a growth rate of over 6 percent between 2000 and 2005.

Table 3.1.1: Average Mutton and Lamb Production, 2000-2005, Top 10 Producing Countries and Canada

Country	Average Production from 2000-2005: 1,000 Metric Tonnes	Average Growth in Production from 2000-2005: percent
China	1,868.67	10.0
Australia	630.14	2.0
New Zealand	531.97	0.1
Iran	347.78	3.5
United Kingdom	314.50	-0.4
Turkey	287.00	0.4
Spain	234.62	0.5
India	234.30	1.5
Syrian Arab Republic	192.88	7.2
Algeria	164.84	-0.6
Canada	15.33	6.4
World Production	7,901	1.08

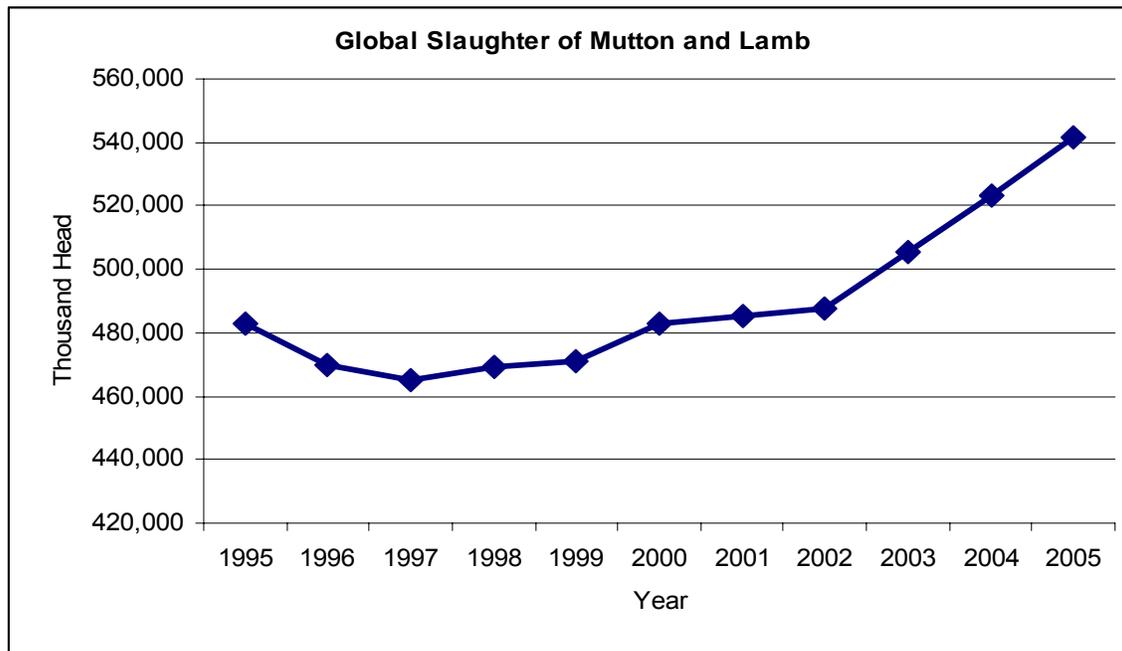
Source: FAOSTAT data, 2006

3.1.2 Slaughter

Global slaughter of lamb and mutton has also been increasing in the last decade. Average annual growth in global slaughter between 1995 and 2005 was 1.2 percent. Most recently, however, between 2003 and 2005, growth in slaughter has been well above three per cent. In 2005, China was responsible for over 30 percent of the total global slaughter of lamb and mutton, followed by New Zealand and Australia (with over 5 percent of global slaughter each).

Figure 3.1.3 illustrates the volume of mutton and lamb slaughtered between 1995 and 2005. Fluctuation in the volume of mutton and lamb slaughtered is partly due to restocking after drought, particularly in Australia, which reduced the availability of lambs for slaughter.

Figure 3.1.3: Global Slaughter of Mutton and Lamb, 1995-2005



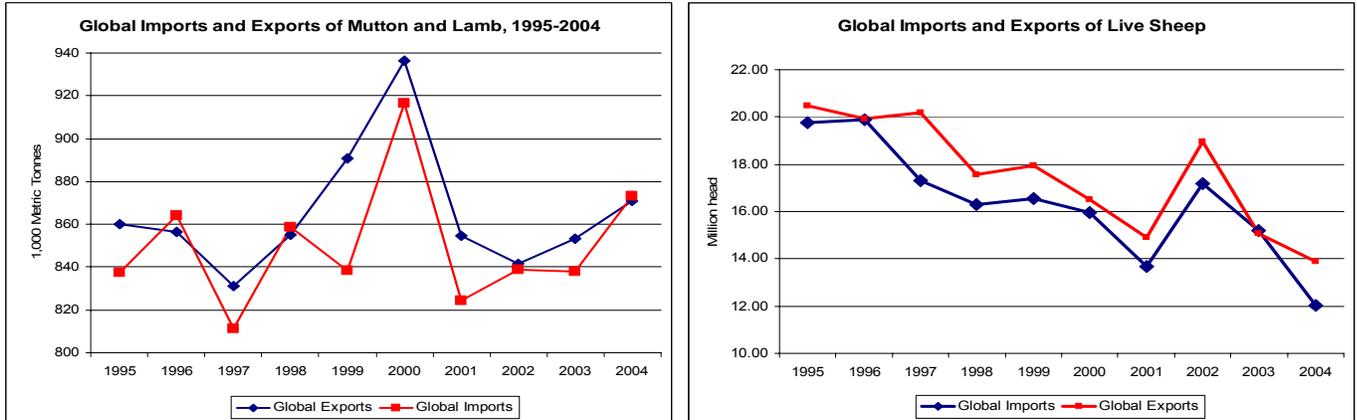
Source: FAOSTAT Data, 2006

3.1.3 International Trade

International trade in lamb and mutton is trending toward higher value processed cuts. The volume and regularity of whole carcass and live animal trading is diminishing. Global imports and exports of lamb and mutton in the last decade were highest in 2000. In 2004, global imports were 873 thousand metric tonnes and 2004 global exports were 871 thousand metric tonnes. The average growth rate of exports and imports has been fairly slow. Between 1995 and 2004, global imports increased on average less than one percent (0.6 percent), while global exports increased, on average, 0.2 percent. The small differences in the levels of global imports and exports of lamb and mutton can be attributed to factors such as reporting differences between countries.

Global exports and imports of live sheep and lamb have been decreasing in the last decade. Total imports of live sheep in 2004 decreased by 39 percent compared to 1995 and total exports were 32 percent less in 2004 than in 1995. Figure 3.1.4 shows global imports and exports between 1995 and 2004.

Figure 3.1.4: Global Imports and Exports of Mutton and Lamb and Live Sheep, 1995-2004,



Source: FAOSTAT data, 2006

3.1.4 Imports

France is currently the largest importer of lamb and mutton. In 2004, France imported 135 thousand metric tonnes of mutton and lamb. This is followed by England, the United States, China and Saudi Arabia. However, the rate of growth of imports of mutton and lamb coming into France has been decreasing in the last few years. Table 3.1.2 shows that this is also true for Saudi Arabia, Germany, Papua New Guinea and South Africa. China has been experiencing the largest growth in imports of lamb and mutton, followed by Mexico and the United States.

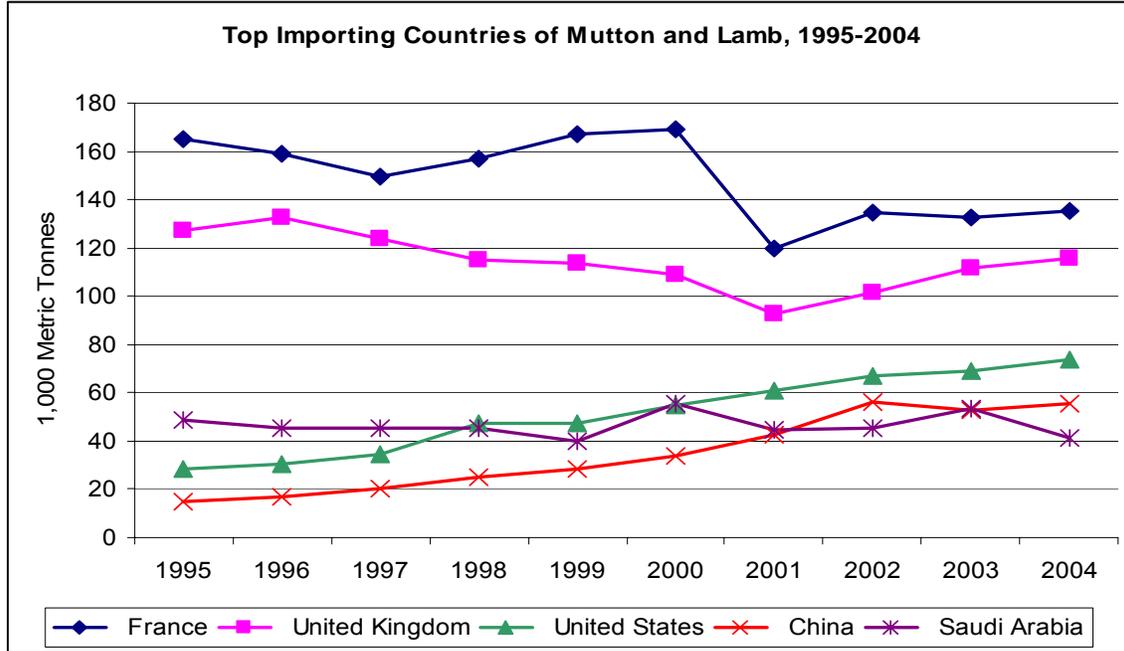
Table 3.1.2: Average Imports of Mutton and Lamb and the Value of Imports, Top 10 Importing Countries and Canada

Country	IMPORTS OF MUTTON AND LAMB - QUANTITY		VALUE OF MUTTON AND LAMB IMPORTS	
	Average Imports from 2000-2004: 1,000 metric tonnes	Average Growth Rate of Imports from 2000-2004: percent	Average Value of Mutton and lamb imports, 2000-2004 (\$1,000 US)	Growth Rate, 2003-2004 (percent)
France	138.31	-4.2	525,910	13.99
United Kingdom	106.04	2.1	370,668	26.32
United States	65.18	7.8	301,973	19.89
China	48.25	14.1	67,687	23.61
Saudi Arabia	47.89	-5.7	103,182	-22.06
Mexico	47.36	8.0		
Germany	36.56	-5.6	189,360	
Belgium	32.31	5.9	185,735	14.53
Papua New Guinea	27.01	-6.1		
South Africa	26.63	-18.9		
Canada	16.26	2.2	56,815	7.34
Global Imports	858.17	-1.1	2,691,778	15.75

Source: FAOSTAT data, 2006

The total value of imports of mutton and lamb in 2004 was approximately 3.5 billion U.S. dollars. The value of imports of mutton and lamb to France were the highest, followed by the United Kingdom, the United States, Germany and Belgium. Table 3.1.2 shows the average value of mutton and lamb imports between 2000 and 2004 and the rate of growth between 2003 and 2004 for the top 10 importing countries.

Figure 3.1.5: Top Mutton and Lamb Importing Countries, 1995-2004, 1,000 Metric Tonnes



Source: FAOSTAT data, 2006

Table 3.1.3: Average Live Sheep Imports and Value of Live Sheep Imports, Top 10 Importing Countries and Canada

Country	NUMBER OF LIVE SHEEP IMPORTS		VALUE OF LIVE SHEEP IMPORTS	
	Average Imports from 2000-2004: Million Head	Average Growth Rate of Imports from 2000-2004: percent	Average Value of Live Imports, 2000-2004 (\$1,000 US)	Growth Rate, 2003-2004 (percent)
Saudi Arabia	3.72	4.23	281,944	-31.24
Kuwait	1.74	-3.33	80,712	-6.71
Italy	1.71	-0.46	89,450	5.70
Greece	0.76	14.55	33,347	33.27
Jordan	0.62	9.89	26,687	30.80
South Africa	0.61	56.16		
United Arab Emirates	0.57	-12.05	23,107	65.54
France	0.52	-12.15	38,590	28.54
Qatar	0.46	-10.36	32,813	-1.62
Lebanon	0.43	79.19	37,495	-47.65
Canada	0.001	-37.68	99	-20.69
Global Imports	14.81	-5.23	860,086	-11.95

Source: FAOSTAT data, 2006

Table 3.1.3 (above) shows the average value of live sheep imports between 2000 and 2004 and the rate of growth between 2003 and 2004 for the top 10 importing countries. Saudi Arabia is the largest importer of live sheep, followed by Kuwait, Italy and Greece. Between 2000 and 2004, Saudi Arabia accounted for almost 25 percent of global live sheep imports. The value of live sheep imports is considerably less than that of mutton and lamb imports, and in 2004, global value of live sheep imports was approximately US\$8.4 million. As the largest importer of live sheep, the value of imports to Saudi Arabia was also the highest.

3.1.5 Exports

Processed

New Zealand is the largest exporter of lamb and mutton in the world, followed by Australia, the United Kingdom, Ireland and Spain. These five countries account for over 86 percent of total global exports, and over 80 percent of these exports come from New Zealand and Australia.

Despite accounting for over 80 percent of global exports, the average growth rate of exports in mutton and lamb for New Zealand and Australia decreased between 2000 and 2004. Exports from the United Kingdom have also generally been declining since 1995: the lowest export volume was reached in 2001.

The rate of growth of exports from India has been generally increasing and Canada is also showing a high growth rate of exports, at over 40 percent on average between 2000 and 2004.

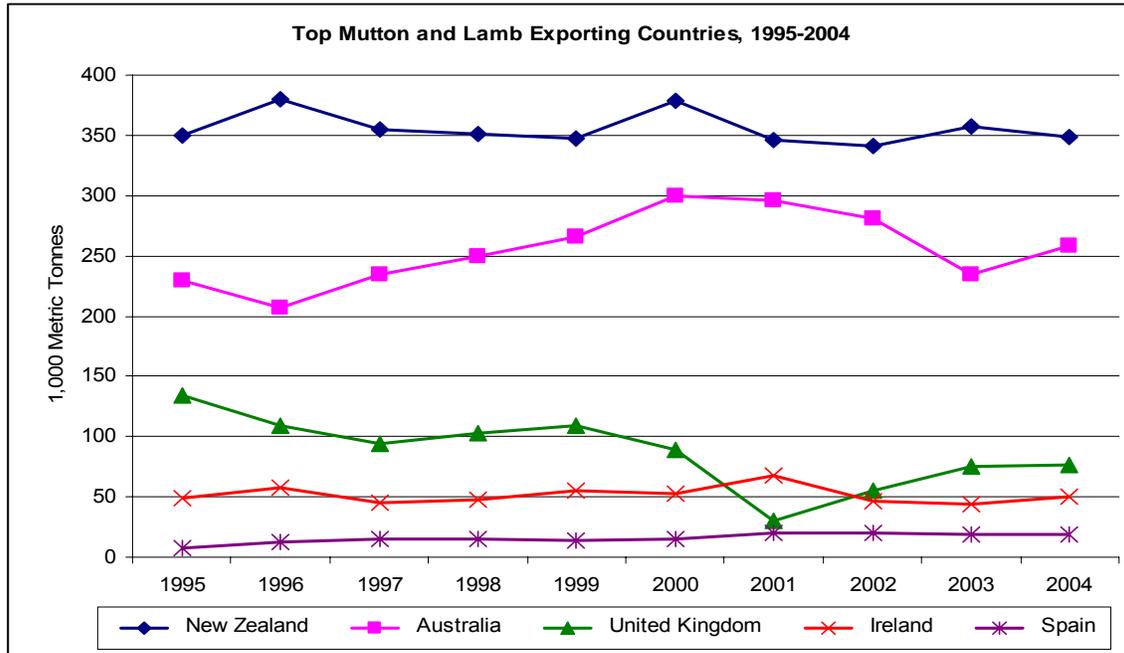
The value of lamb and mutton export has been increasing and in 2004, exports of mutton and lamb were 73 percent higher when compared to 1995. The value of mutton and lamb exports is highest in New Zealand, followed by Australia and the United Kingdom. Table 3.1.4 shows the value of mutton and lamb exports.

Live

In 2004, there were almost 13.9 million head of sheep and lamb exported globally (see Table 3.1.5). Australia was the largest exporter of live sheep. In 2004 it accounted for almost 25 percent of global live sheep exports. Overall, however, Australian exports of live sheep have been declining, to the extent of over 41 percent between 1995 and 2004.

The value of live sheep exports was highest (between 1995 and 2004) in 2002. While the highest average value of live sheep exports between 2000 and 2004 was from Australia, in 2004 the Syrian Arab Republic achieved the highest value of live sheep exports for a single year. Table 3.1.5 shows the value of live sheep exports.

Figure 3.1.6: Top Mutton and Lamb Exporting Countries, 1995-2004, 1,000 Metric Tonnes



Source: FAOSTAT data, 2006

Table 3.1.4: Exports of Mutton and Lamb and Value of Exports, Top 10 Exporting Countries and Canada

Country	EXPORTS OF MUTTON AND LAMB - QUANTITY		VALUE OF MUTTON AND LAMB EXPORTS	
	Average Exports from 2000-2004: 1,000 metric tonnes	Average Growth Rate of Exports from 2000-2004: percent	Average Value of Mutton and lamb Exports, 2000-2004 (\$1,000 US)	Growth Rate, 2003-2004 (percent)
New Zealand	354.00	-2.0	1,118,893	15.70
Australia	273.89	-3.2	610,227	23.86
United Kingdom	65.16	13.6	246,430	11.87
Ireland	52.11	1.1	187,884	20.81
Spain	18.71	7.5	66,000	9.04
Belgium	17.82	19.5	103,619	25.52
Uruguay	9.15	-11.9		
India	9.03	41.2		
France	8.16	1.7	38,399	-4.32
Netherlands	7.42	-17.2	28,003	-5.77
Canada	3.95	40.2	959	24.35
Global Exports	871.35	-1.7	2,605,277	16.26

Source: FAOSTAT data, 2006

Table 3.1.5: Exports of Live Sheep and Value of Live Sheep Exports, Top 10 Exporting Countries

	NUMBER OF LIVE SHEEP EXPORTS		VALUE OF LIVE SHEEP EXPORTS	
<i>Country</i>	<i>Average Exports from 2000-2004: Million Head</i>	<i>Average Growth Rate of Exports from 2000-2004: percent</i>	<i>Average Value of Live Exports, 2000-2004 (\$1,000 US)</i>	<i>Growth Rate, 2003-2004 (percent)</i>
Australia	5.3	-8.86	185,525	-24.34
Romania	1.7	17.22	65,559	21.08
Syrian Arab Republic	1.6	205.16	176,966	18.46
Hungary	0.9	-2.01	45,709	52.13
Sudan	0.9	N/A	66,411	0.00
Namibia	0.6	52.96	17,642	0.00
France	0.6	-2.08	29,404	10.52
Spain	0.4	-2.66	20,346	-8.99
Mali	0.3	0.00	18,000	0.00
United States of America	0.3	-25.27	14,624	-37.22
<i>Canada</i>	<i>0.1</i>	<i>-5.48</i>	<i>6,765</i>	<i>-99.83</i>
World	15.9	-2.74	809,681	4.32

Source: FAOSTAT data, 2006

3.1.6 Consumption

The OECD-FAO Outlook 2005-2014 estimates a fairly steady per capita consumption of sheep meat in OECD countries between 2005 and 2015 (at about 1.8 kg per person), but overall consumption in OECD countries is expected to increase by about 4.6 percent. In non-OECD countries, per capita consumption of sheep meat is expected to increase from 1.6 kg/person to 1.8 kg/person while overall consumption is expected to grow by almost 26 percent from 2005 to 2014. According to Rabobank (2006), consumption levels in developing countries are expected to increase as income levels rise and population numbers increase.

The OECD-FAO Outlook report is substantiated by a report from Meat and Livestock Australia (2006), which indicates that the global demand for sheep meat is rising, but that world consumption of sheep meat remains flat, except in China. In 2005, the global market for Halal food was estimated at U.S. \$150 billion and expected to grow to U.S. \$500 billion (MLA, 2006). As the world Muslim population continues to increase in size and affluence, there is a potential to increase sheep meat consumption in Muslim markets.

Table 3.1.6 shows the per capita consumption of sheep meat in the top ten consuming countries. This table shows that Middle East countries are generally large consumers of sheep meat. In Kuwait, sheep meat consumption is second highest at 17.2 kg/person. The United Arab Emirates, Iran and Saudi Arabia also have fairly high per capita consumptions of sheep meat.

The OECD outlook data (2005) show a growing per capita consumption of all meat in China by 2014. Per capita consumption of meat in China in 2014 is estimated at 47.5 kilograms per person, an increase of almost 15 percent from 2005. As production of sheep in China climbs, the consumption of sheep meat will also increase, and if Chinese production of sheep meat cannot meet this demand, then they become a possible market for sheep meat imports.

Table 3.1.6: Per Capita Consumption of Sheep meat, Top Ten Consuming Countries and Canada, Kilograms per person

Country	Per Capita Sheepmeat Consumption, Kilograms/person
Western Samoa	20
Kuwait	17.2
Cyprus	15.8
Australia	14.6
United Arab Emirates	12.8
Greece	12.4
Fiji	11.9
New Zealand	11.8
Iran	6.6
Saudi Arabia	6.4
Canada	1.0

Source: Meat and Wool New Zealand, 2006

3.1.7 Global Outlook for Sheep

According to a joint report published by the OECD-FAO (FAO, 2005), the future outlook for sheep meat is favourable. While globally the average growth rate of sheep meat production between 1995 and 2004 was 1.7 percent (FAO Stat, 2006), global sheep meat production is expected to grow by 2.1 percent annually over the next ten years (2005-2014).

Though most of the increase in sheep meat production is expected to occur in developing countries, both Australia and New Zealand are expected to continue to expand production too. This will not be to supply domestic markets, where consumption is expected to remain steady; rather for increased export demand, particularly with the resumption of live sheep trade with Saudi Arabia (FAO, 2005).

Trade is also expected to strengthen over the next decade through growing ethnic diversity in developing countries. This will result in higher import demand from North America, Europe and the Middle East (FAO, 2005).

3.2 The Canadian Lamb Industry

3.2.1 Industry Overview

Inventories of sheep and lamb in Canada are up considerably in the 2000's compared to the 1980's and 1990's. The overall inventories of sheep and lamb were highest in 2004, but decreased significantly in 2006; mainly due to changes in provincial lamb inventories, which have proven more volatile than total sheep inventories. Alberta had the largest lamb inventory, though has recently been surpassed by both Quebec and Ontario. As well, in 2006 Quebec boasted the largest inventory of lambs, followed by Ontario and Alberta Table 3.2.1 illustrates annual changes in sheep and lamb versus solely lamb inventories between 1995 and 2006.

Canadian lamb inventories comprise about 32 percent of the total sheep inventory and were highest in 2002. While the overall national lamb inventory has been decreasing in Canada, the inventories of individual provinces have fluctuated markedly. In the early 1990's Alberta had the largest sheep flock. This has since been surpassed by both Ontario and Quebec. In 2006 Quebec had the largest sheep and lamb inventory in Canada, closely followed by Ontario. Figure 3.2.1 illustrates the provincial distribution of total lamb and sheep numbers between 1990 and 2006. Figure 3.2.1 illustrates the provincial distribution for lambs aged one year or less.

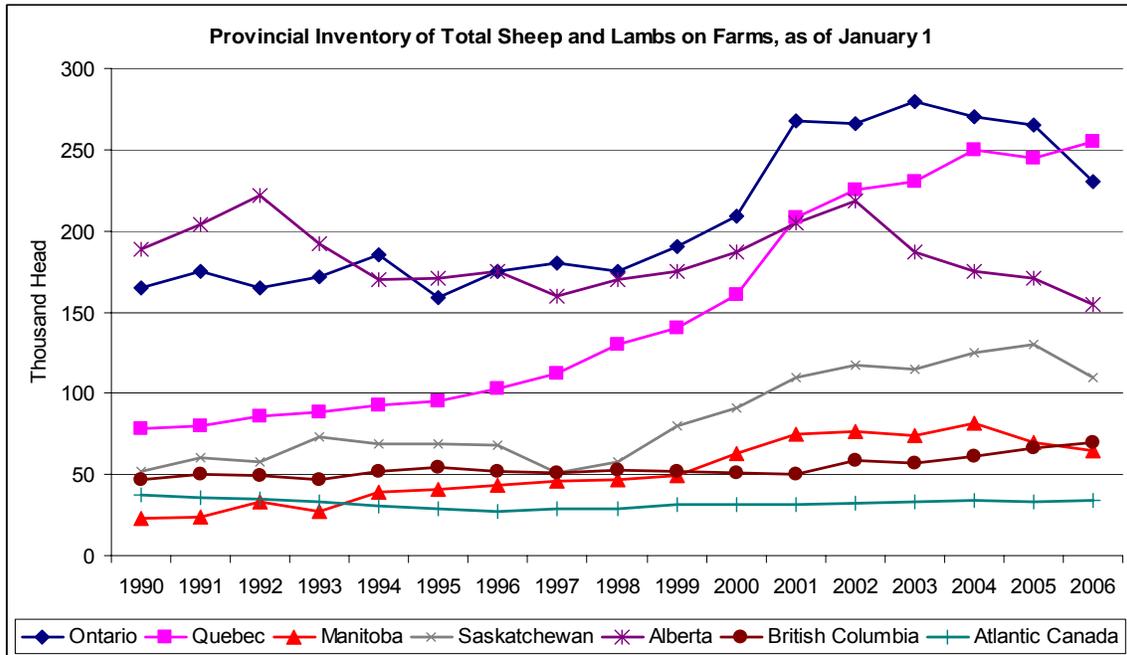
Pasture production constitutes the majority of lamb production. With this method following a cycle of birth and slaughter within a calendar year, tracking stocking rates as of January 1st each year may present an inaccurate picture of production trends or productivity (Firth, 2006). Actual lamb production rates and ratios per volume of breeding stock numbers may well be higher than presented in these figures. Of particular interest from the figures shown is the growth in stocks of lambs aged less than one year on January 1st. This implies that either more lambs are being produced outside of traditional production periods, are being sold over longer periods of the year, and/or are being fed in feedlots so timing is not limited to the availability of pasture.

Table 3.2.1: Inventory of Sheep and Lamb on Canadian Farms, as of January 1, Thousand Head

	Total Sheep and Lamb, '000 Head	Lambs Under 1 Year, '000 Head	Lambs as a Percent of Total
1995	617.3	176.2	29.0
1996	643	186.6	28.7
1997	627.8	180.4	29.8
1998	662	197.2	31.6
1999	717	226.9	31.6
2000	793	250.5	36.1
2001	947.8	342.1	35.1
2002	993.6	349.2	34.2
2003	975.6	334	34.8
2004	997	347.1	34.5
2005	980.3	338.3	33.2
2006	919	304.8	29.0

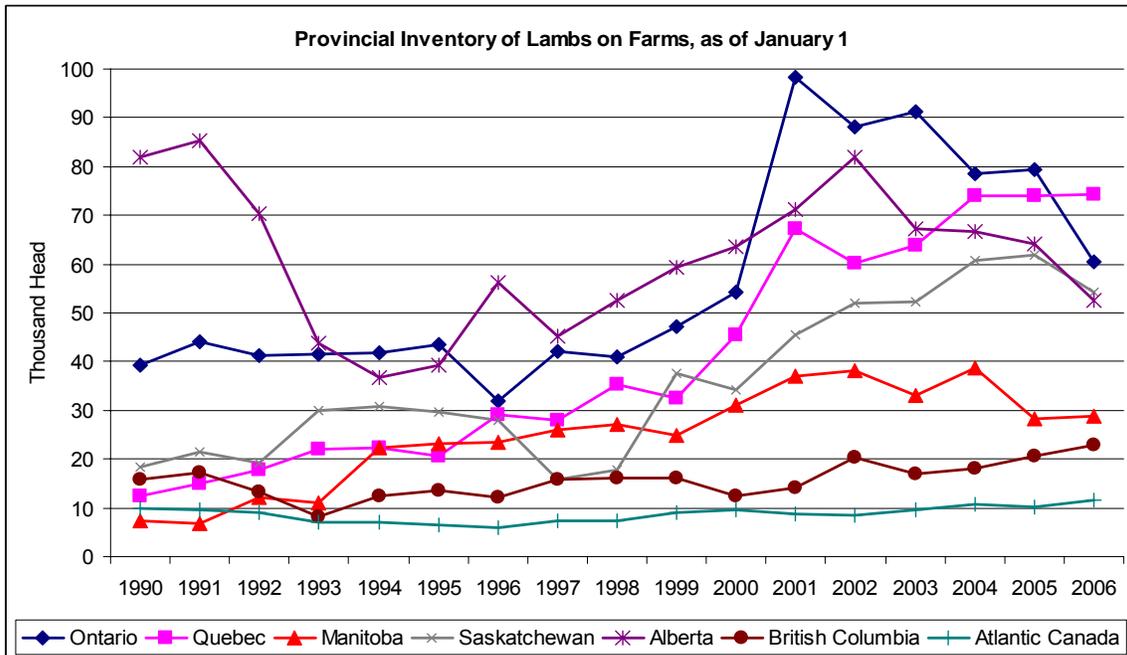
Source: Statistics Canada, Canadian Sheep Statistics

Figure 3.2.1: Provincial Distribution of Total Sheep and Lambs on Farms, as of January 1



Source: Statistics Canada, Canadian Sheep Statistics

Figure 3.2.2: Provincial Distribution of Lambs (Under One Year) on Farms, as of January 1



Source: Statistics Canada, Canadian Sheep Statistics

3.2.2 Industry Structure and Governance

Provincial and national organizations are responsible for developing and promoting the Canadian sheep industry. At the federal level sits the Canadian Sheep Federation. It was established in 1990 and is responsible for setting national policy for the sheep industry. The mission of the Canadian Sheep Federation is “to endeavour to work closely and cooperatively with all levels of government and industry related organizations, both domestic and foreign, to further the viability, expansion and prosperity of the Canadian sheep and wool industry”

(Canadian Sheep Federation, 2006). Membership of the Canadian Sheep Federation is voluntary.

The Canadian Sheep Federation works with industry to deliver programs in the area of promoting animal health, and food safety and quality: specifically the Canadian Sheep Identification Program, and the Canadian On-Farm Food Safety Program. Delivery of the Canadian Sheep Identification Program (CSIP) is the responsibility of the Canadian Sheep Federation. CSIP is governed by the federal *Health of Animals Act* and the *Health of Animals Regulations*, which came into force on January 1, 2004. The program comprises a compliance and enforcement strategy that supports education, information; as well as enforcement actions if required (Canadian Sheep Federation, 2006).

As part of the program, each animal is required to have a national identification ear tag applied before it is removed from the flock of origin. Each ear tag has an identification number. Producers purchase the ear tags from distributors, and the information is reported to a central database maintained by the Canadian Cattle Identification Agency. Sheep producers are required to keep records regarding the movement of animals and identification numbers are tracked to the packing plant and point of carcass inspection.

With the exception of Prince Edward Island, all provincial sheep organizations are (voluntarily) members of the Canadian Sheep Federation. Those organizations include: Alberta Sheep and Wool Commission, B.C. Sheep Federation, Fédération des producteurs d'agneaux et moutons du Québec, Manitoba Sheep Federation, Ontario Sheep Marketing Agency, Saskatchewan Sheep Development Board, Saskatchewan Sheep Breeders Association and Sheep Producers Association of Newfoundland and Labrador.

Check-off payments to their respective provincial associations, at the time of the animal's sale, are a mandatory requirement for all sheep producers. Responsible for market development, promotion, extension education, and producer seminars, provincial associations are producer run and have quite similar mission statements.

Largely due to the confirmation of diseases, including BSE, the Canadian Food Inspection Agency has prohibited certain imports of lamb and mutton and by-products from the United States since a case of BSE was detected in Washington State in 2003. Currently only sheep aged less than 12 months can be imported for immediate slaughter or feeding for slaughter. Imports of processed sheep meat products are only allowed if sourced from animals aged 12 months or less.

3.2.3 Imports

Canadian imports of lamb and mutton for consumption have generally been increasing. Imports in 2004 totaled 18,400 metric tonnes. In comparison, live imports of lamb and mutton for slaughter have decreased considerably in the last decade. In fact, live imports have decreased by almost 100% since 1995 (see Table 3.2.2). This implies that the volume of lamb being processed domestically has increased.

Table 3.2.3 details the 2004 and 2005 imports of dressed lamb and mutton to Canada from the U.S., Australia and New Zealand. In total, the majority of dressed meat imports come from New Zealand. Lamb cuts with the bone in and lamb cuts, boneless, comprise, by far, the greatest amount of imports.

Table 3.2.2: Imports of Lamb and Mutton, for Slaughter and for Consumption, 1995-2004

	Lamb and Mutton for Consumption, 1,000 tonnes	Live Lamb and Mutton for Slaughter, 1,000 head
1995	12.97	25.1
1996	11.26	27.2
1997	12.42	10.4
1998	14.15	14.7
1999	15.04	9.3
2000	16.76	2.8
2001	18.14	1.1
2002	17.51	1.1
2003	18.45	0.4
2004	18.4	0.4

Source: Statistics Canada, CANSIM data 2006

Table 3.2.3: Dressed Meat Imports of Lamb and Mutton, 2004 & 2005, Metric Tonnes

	2004					2005				
	U.S.	Australia	New Zealand	Other	Total	U.S.	Australia	New Zealand	Other	Total
Lamb Carcasses	0	162	143	0	305	5	111	54	0	170
Lamb Cuts Bone-In	30	1449	7631	0	9110	160	2155	7314	0	9629
Lamb Cuts Boneless	2	840	1585	0	2427	37	1406	1775	0	3218
Offals	118	2	14	0	134	107	33	0	0	140
Other	0	0	0	0	0	0	0	0	0	0
Mutton Carcass	0	61	9	0	70	0	30	0	0	30
Mutton Cuts Bone-In	0	1109	327	0	1436	0	911	703	0	1614
Mutton Boneless	0	364	75	0	439	0	395	12	0	407
Total	150	3,987	9,784	0	13,921	309	5,041	9,858	0	15,208

Source: AAFC, Annual Livestock and Meat Report

3.2.4 Exports

Canada is not typically a large exporter of sheep and lamb. In 2004, the export of processed lamb and mutton totaled 0.31 thousand metric tonnes. This was the highest number of lamb and mutton exports in the last decade.

Exports of live lamb and sheep for slaughter vary quite a bit. In 2002, Canada exported over 139,000 head, but in 2004, there were no exports of live lamb and sheep. Table 3.2.4 shows the exports of lamb and mutton for consumption and live lamb and sheep for slaughter.

Table 3.2.4: Exports of Lamb and Mutton/Sheep, for Slaughter and for Consumption, 1995-2004

	Lamb and Mutton for Consumption, 1,000 tonnes	Live Lamb and Sheep for Slaughter, 1,000 head
1995	0.08	39
1996	0.08	44.6
1997	0.23	46.2
1998	0.24	46.1
1999	0.27	52
2000	0.29	51.7
2001	0.3	85.4
2002	0.28	139.3
2003	0.09	68.8
2004	0.31	0

Source: Statistics Canada, CANSIM data 2006

3.2.5 Farm Receipts

Growth in farm cash receipts for sheep and lamb have fluctuated markedly. While between 2003 and 2004 there was a 16 percent decrease in lamb farm cash receipts, between 2004 and 2005 there was a 31 percent increase in lamb farm cash receipts. Farm cash receipts for sheep and lamb in 2005 totaled CAD\$5.6 million and CAD\$106.4 million respectively. At their most profitable in 2005, lamb receipts have grown over 60 percent since 1995. Farm cash receipts for sheep are a small portion of the overall total received from the sheep and lamb industry.

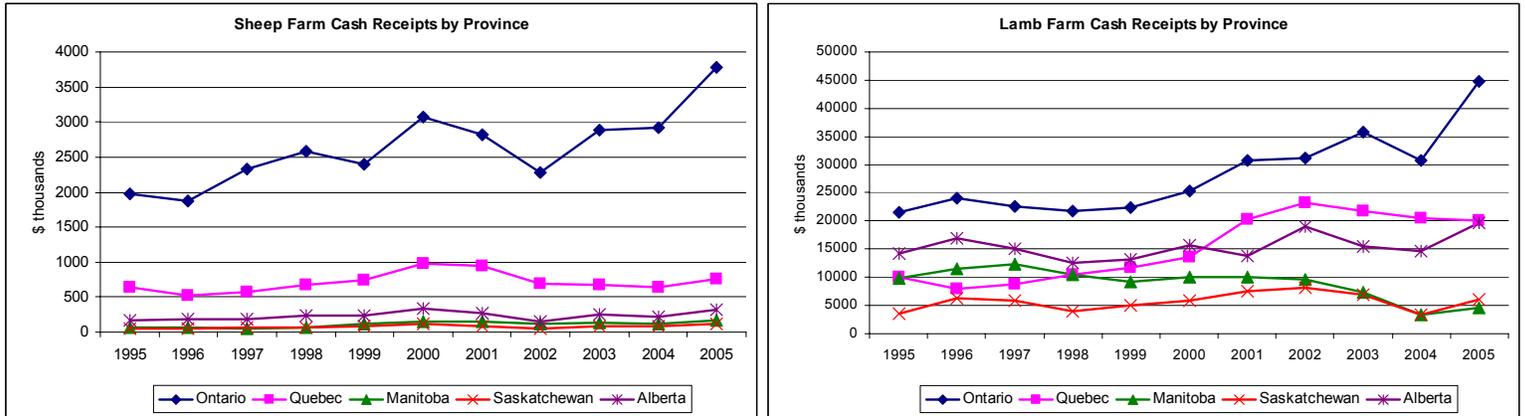
Table 3.2.5: Farm Cash Receipts of Sheep and Lamb, Canada, 1995-2005

	Sheep Farm Cash Receipts \$1,000 CAD	Growth Rate %	Lamb Farm Cash Receipts \$1,000 CAD	Growth Rate %
1995	3,206		66,403	
1996	3,026	-5.6	74,812	12.7
1997	3,494	15.5	71,843	-4.0
1998	4,034	15.5	67,727	-5.7
1999	4,013	-0.5	70,464	4.0
2000	5,214	29.9	81,526	15.7
2001	4,743	-9.0	92,273	13.2
2002	3,568	-24.8	99,486	7.8
2003	4,395	23.2	96,459	-3.0
2004	4,316	-1.8	81,110	-15.9
2005	5,617	30.1	106,389	31.2

Source: Statistics Canada, CANSIM data 2006

Ontario receives the largest proportion of farm cash receipts from lamb and sheep compared to the other provinces. This is followed by Quebec and Alberta. Overall, in 2005, Ontario accounted for over 42 percent of total farm cash receipts for lamb, likely as a result of the amount of slaughtering/processing that occurs in Ontario.

Figure 3.2.3: Distribution of Sheep and Lamb Farm Cash Receipts by Province, 1995-2005



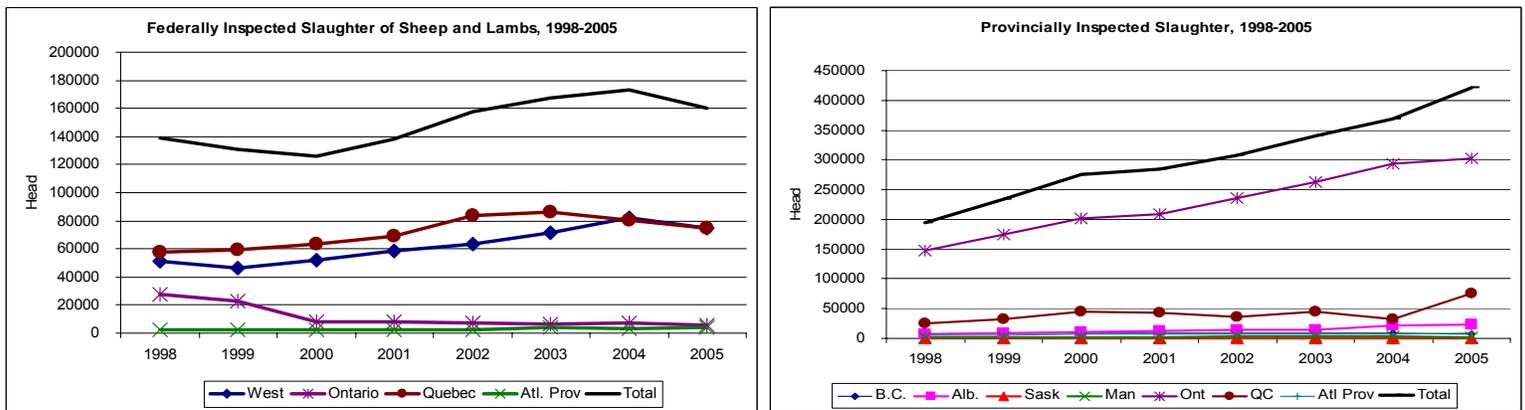
Source: Statistics Canada CANSIM data, 2006

3.2.6 Slaughter

The majority of the slaughter of sheep and lamb in Canada occurs in provincially inspected plants. This figure is growing. In 2005, 72 percent of the slaughter (federal and provincial) occurred in provincially inspected plants. On average, between 1998 and 2005, provincial slaughter accounted for 66.5 percent of total lamb and sheep slaughter.

Ontario slaughters the most sheep and lamb in provincially inspected plants, followed by Quebec and Alberta. However, Quebec and the western provinces slaughter the most head of sheep and lamb in federally inspected plants. Ontario, therefore, appears to have a greater propensity to slaughter sheep and lamb in provincially inspected plants than any other province.

Figure 3.2.4: Sheep Slaughter in Federally and Provincially Inspected Plants, 1998-2005



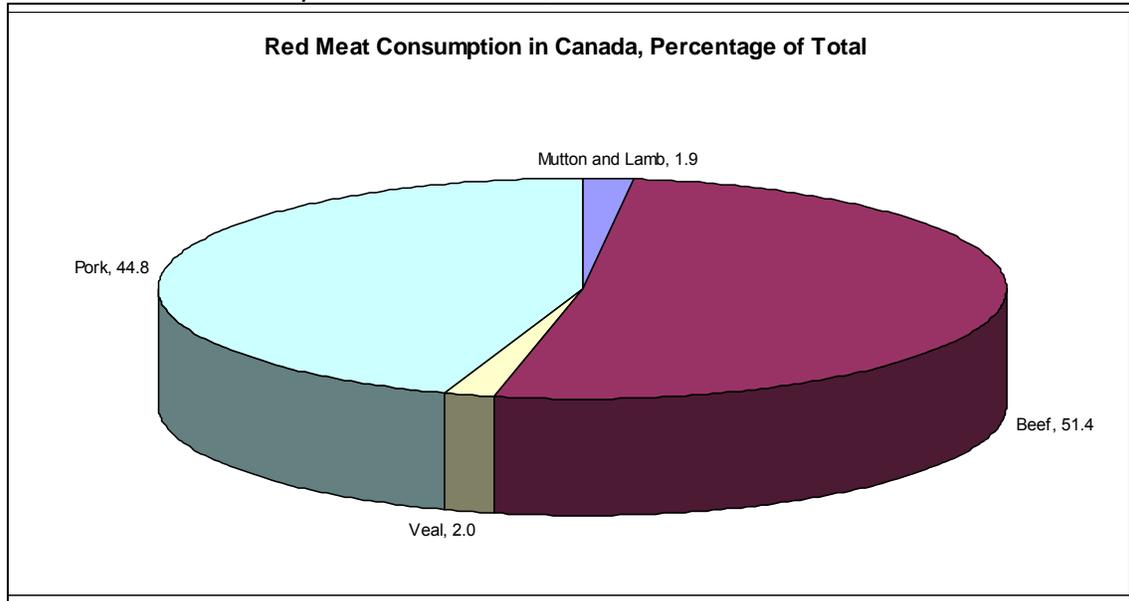
Source: AAFC, Annual Livestock and Meat Report

While slaughter in provincially inspected plants is increasing at a fairly steady rate (averaging 11.8 percent per year between 1998 and 2005), the same is not true for federally inspected plants. Federally inspected slaughter grew on average by only 2.3 percent per year between 1998 and 2005, and had declines in sheep and lamb slaughter in 1999, 2000 and 2005.

3.2.7 Lamb Consumption

While per capita consumption lamb and mutton consumption is increasing in Canada, 1.11 kilograms per person in 2004 compared to 0.83 kilograms per person (carcass weight) in 1990, beef remains the most popular in terms of red meat consumption. Between 1990 and 2004, approximately 51.7 percent of total red meat consumption in Canada was beef, compared to 44.6 percent for pork, 2.2 percent for veal and 1.5 percent for lamb and mutton. However, consumption of lamb and mutton in Canada has been increasing. Figure 3.2.5 illustrates the comparative percentages in consumption for each of the named red meats.

Figure 3.2.5: Red Meat Disposition in Canada, 2004



Source: Statistics Canada CANSIM data, 2006

Between 1990 and 2004 total consumption of lamb in Canada increased by over 54 percent. As per capita consumption during this period has not grown by the same factor (34 percent), part of the overall increase in lamb consumption is attributed to population growth: see Figure 3.2.6.

Little research has been done in Canada relating to the market profile of lamb consumers. A report by Christopherson (2005) provides two explanations for increased lamb consumption in Canada, as determined by a review of the existing literature and discussions with stakeholders in the sheep industry. They are:

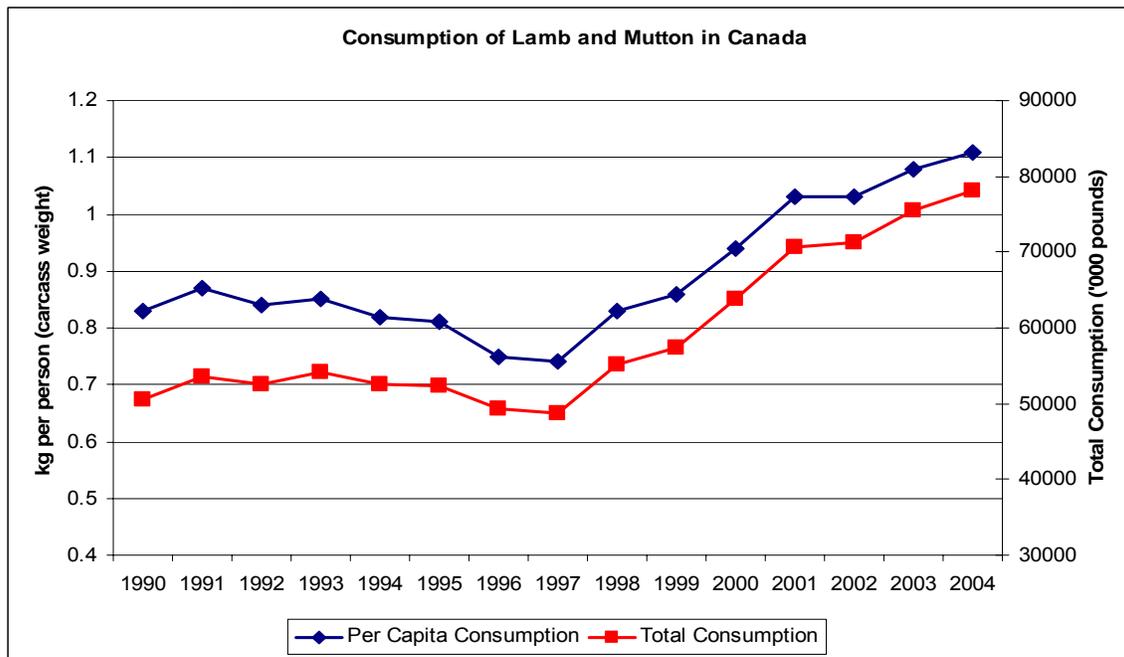
- Lamb consumption has increased due to an increase in immigration. Immigrants consume more lamb per capita than non-immigrant Canadians due to cultural and religious reasons.
- Canadian baby-boomers are seeking a new dining experience.

Most of the Canadian-Arab population, which traditionally exhibit some of the highest per capita consumption rates for lamb and mutton in the world, resides in Ontario (~82,000) and Quebec (~78,000). However, Alberta also has a significant Arab population (~15,500). In addition to immigration, the multicultural environment and a greater access to travel have resulted in international cuisine becoming increasingly popular. Consumption trends resulting from these demographic influences have increased the overall demand for lamb. They also provide opportunities for suppliers to increase Canadian production and consumption further.

No precise studies have been undertaken to measure the consumption of lamb amongst the immigrant population in Canada. The closest appears to be Alberta Agriculture, Food and Rural Development, who in 2005 looked at the Canadian halal meat market. The study identified 600,000 Muslims in Canada, as determined by the 2001 Census, and found that the average Canadian Muslim household consumes 5.6 meat servings per day (AAFRD, 2005). Halal beef and chicken are the most widely consumed, and this is followed closely by lamb and goat.

Suggestions have also been made that changes in income may also lead to a higher demand for mutton and lamb products (Christopherson, 2005).

Figure 3.2.6: Consumption of Lamb and Mutton in Canada, 1990-2004



Source: Statistics Canada CANSIM data, 2006

Specialty Markets

A number of opportunities exist to increase per capita and overall lamb consumption through developing products targeted meet specific segments in the consumer market. Opportunities include developing products related to meeting religious observances (i.e. Kosher and Halal products); meeting consumers growing interest in products differentiated by production method (i.e. organic), or place of production (i.e. regional and/or local); or through value-adding.

Religious Influences

Traditional religious holidays and ceremonies have a significant implication for the successful marketing of lamb. Lamb holds a significant meaning in the observances of many major religions, and lamb and mutton are dietary staples in many countries. According to the 2001 census data, a large portion of Ontario’s population increase since 1996 is due to immigration. As ethnic diversity increases, the traditional patterns of supply and demand for lamb in Ontario may change. As such, there is substantial advantage in marketing to the type of lambs preferred for these markets (Ontario Sheep Marketing Agency, 2006).

Table 3.2.6: Religious Affiliations of Canadians, 2001 Statistics Canada Census

Religious affiliation of Canadians according to 2001 Statistics Canada census data	Canada	Quebec	Ontario	West (MB,SK,AB,BC)	Atlantic (NB,NS,PE,NF)
Catholic & Protestant	22,372,205	6,332,055	8,149,440	5,768,985	2,050,865
Christian Orthodox	479,620	100,375	264,055	110,055	4,825
Muslim	579,640	108,620	352,530	112,585	5,645
Jewish	329,995	89,915	190,795	46,220	2,985
Buddhist	300,345	41,380	128,320	127,745	2,600
Hindu	297,200	24,525	217,555	52,885	2,145
Sikh	278,410	8,225	104,785	164,765	495
Other	101,525	7,295	36,765	53,175	3,290
No religious affiliation	4,900,090	413,190	1,841,290	2,440,460	185,885
Total	29,639,030	7,125,580	11,285,535	8,876,875	2,258,735

Source: Ontario Sheep Marketing Agency, 2006

Kosher foods represent a growing niche market in Canada. The Canadian Kosher market has increased from \$480 million in 2000 to \$575 million in 2001 according to a USDA Foreign Agriculture Services Study (Faye Clack Marketing & Communications, Inc., 2002; Reynolds-Zayak, 2004; McDonald, 2004). Furthermore, as stated by McDonald (2004) kosher consumers are not only Jewish. Interested is growing in kosher products for health and religious reasons.

According to Reynolds-Zayak (2004), kosher products follow Jewish dietary laws stating which food can be eaten together and how they should be prepared. Ruminant animals, such as sheep, are considered kosher. Although Jewish consumers are the main consumers of kosher products (45 percent), over 50 percent of kosher products are consumed by non-Jewish consumers. These include consumers who believe kosher products are safer and better (25 percent), Muslims (20 percent), and consumers who buy for philosophical, health or religious reasons (10 percent).

Currently, the Canadian Jewish community has a population of about 330,000. Approximately 90% of these individuals reside in four cities: Toronto (50 percent); Montreal (27 percent); Vancouver (5 percent) and Winnipeg (4 percent) (Reynolds-Zayak, 2004). This distribution in population is reflected in kosher products being more readily available in Toronto and Montreal than in any other major Canadian city, including Vancouver, Winnipeg, Calgary and Edmonton.

Halal meat is another type of meat produced according to religious edict. Halal describes food that Muslims are allowed to eat. In the case of meat, it refers to meat from a permitted species that was slaughtered according to Islamic rites or Zabihah. With an undersupply of halal meat in Canada, Muslims have become a major consumer of kosher products (McDonald, 2004).

Though Muslims will often purchase kosher if halal lamb is unavailable, there are important difference between kosher and halal meat (McDonald, 2004). All relate to different religious rites surrounding the slaughter of kosher and halal meat. For halal, a need exists to pronounce the name of Allah over animals while slaughtering them facing Mecca. Both halal and kosher meat must come from animals slaughtered by men skilled in slaying and blessing the animals that they slaughter. Neither Muslims nor Jews will usually consume 'standard' lamb.

A project by Alberta Agriculture, Food and Rural Development (2005), *The Halal Project*, found that while there is currently an inadequate supply of lamb and goats for the Canadian Muslim community, many of the challenges associated with supplying halal lamb are associated with infrastructure. Most of the challenges related to issues of seasonal supply and a lack of steady distribution system in the marketplace. As well, a lack of federally registered halal kill facilities and the need for a supportive supply chain for both retail and foodservice limit the productivity of the Canadian sheep industry (AAFRD, 2005).

Organic

The organic market is growing rapidly. With specialty retailers such as Wholefoods Market growing at unprecedented rates, and discount retailers (i.e. Wal-Mart) looking to increase their range of organic products too, organics can no longer be considered “just a niche market” in Canada. Organic products are available at most food retailers, including national supermarket chains. Canada’s organic market is estimated at between \$700 million and \$1 billion at the retail /food service level, which includes processed and non-processed products (Drouin, 2003). Even if this organic market represents only 1-2 percent of the whole food industry the average annual sales growth is estimated at 15-20 % since the late 1990’s and the industry has as a goal to increase its market share to 10 per cent of the Canadian retail market by 2010 (Drouin, 2003).

Christopherson (2005) estimates that organic meat occupies just one percent of the whole organic market: it therefore represents an enormous opportunity for growth. There appears to be a small, but rapidly growing, market for organic products and organic products are found in major Canadian retail chains such as Loblaws, Metro (A&P), Overwaitea (Save On Foods), Safeway and Sobeys. Loblaws has even developed its own Presidents Choice line that is branded Presidents Choice Organic. Natural meat sales account for approximately four percent of the overall Canadian red meat market.

Further market analysis could determine the potential business opportunities for organic and natural lamb in Canada. Even though consumer interest in organic products is expanding, limits exist for growing market share: with price potentially having the greatest limitation on organic lamb consumption. Regular lamb is already more expensive than some beef, pork and chicken. Therefore, if consumers’ traditionally high elasticity of demand according to price translates into their purchasing organic lamb, the price premium at which organic lamb could secure a reasonably sized market may be lower than that associated with most organic foods and meat. For a segment of the market however, price is not a limiting factor. The National Farmers Union (2004), cite Ontario farmers who produce and sell certified organic lamb killed at local abattoirs and marketed through Toronto wholesalers and receive premiums of \$30 to \$40 per lamb.

Local and Regional Foods

Local and regional are interchangeable terms. For the sake of this review and as their success depends upon similar factors, from a marketing standpoint they are considered as overlapping and the main differentiation made between the two terms is distance of purchase from the point of production. From a logistics perspective, *local* usually means produced within 100 miles (160km) of purchase and consumption; *regional* can be produced on a different continent to where they are purchased and/or consumed. Production and consumption of lamb differentiated by locality or region of production is growing.

The purchase of local and regional food is on the increase in many countries, including United Kingdom, Canada, United States, France, Denmark and New Zealand (Gooch, 2006; Gooch & Moore, 2006). Research shows that up to 70 per cent of consumers would prefer to purchase regional and/or local food products, and significant opportunities exist for regional marketing

initiatives to capture the interest of consumers seeking a consumption experience. The largest single limitation to 63 per cent of consumers' purchasing local and regional food is a perception that it is too expensive (IGD, 2006). 41% believe that regional and local food is generally too expensive; a further 22% think that it is often more expensive than similar alternatives.

Local

While consumers deem suitable places of purchase for local (and regional) products include convenience stores, supermarkets, and tourist destinations, critical to the effectiveness of regional marketing initiatives is the clear identification of market opportunities (Hayes, 2002; 2005). So is determining the optimum methods for differentiating a particular region's products, and developing the most effective methods to supply target markets with products desired by customers and consumers. Suppliers need to clearly understand what the market wants and the best way to produce, then deliver, suitable products to the market (Gooch, 2005).

The Institute of Grocery Distributors (IGD, 2006), research the factors which motivate consumers' to buy local foods; which therefore can be used to effectively market such products. Freshness was the overwhelming reason given why consumers buy local food. As well, consumers in the UK also cited the following reasons as being important purchase drivers:

- To support local producers and retailers (social responsibility)
- Product is more natural
- Good for the environment because it has not traveled as far
- Are more aware of how/where the product was produced
- Good value for the money; and
- It keeps jobs in the area

The Food Processing Center, Institute of Agriculture and Natural Resources, was commissioned to do a study with the purpose of estimating the current market potential for locally grown food (2001). A survey was undertaken across households in Nebraska, Iowa, Wisconsin and Missouri. In the survey, consumers were asked to rate the importance of different food attributes when purchasing food. Not surprisingly, taste was the number one factor in determining food choice, however, thirty-six percent of respondents reported that supporting local farmers was an extremely important consideration when buying food and 35% said it was very important. Similarly, 29% of those surveyed said that locally grown/produced food was an important factor for their purchases and 40% said it was a very important factor.

Similar to the IGD study, households were asked what attributes influenced their purchase of locally grown or produced food. Freshness was the number one answer, followed by taste, supporting local farmers, availability of product, to help the local economy, and knowledge of how and where the food was grown. These results are similar to those in the IGD study.

A study by Stephenson and Lev (2004) looked at the support for local agriculture in two different communities in Oregon, with different socio economic and political characteristics. The study explored the potential to expand local market opportunities for farmers, and identify the segment of the general population that is interested in purchasing local farm products.

The study found that consumers purchase local agricultural products for a variety of social, economic and food quality reasons. Those surveyed revealed that keeping farmers in the area was the most important reason for buying local food, followed by supporting the local economy, better quality, confidence in the local product, and they enjoy the buying experience.

Similar to the report by the Food Processing Center, the majority of those surveyed purchased their food from a supermarket (94%), followed by farmers' market, roadside stands, and U-pick farms. As well, over 58% of those surveyed indicated that they shop weekly at outlets which feature local food.

The survey also identified some barriers to buying local food. The number one reason was that the products were not available where they shop. As well, the food not being readily available when the consumers was looking for it and the price being too high were other barriers that were cited in the report.

Based on the studies reviewed above, there is a common trend among the reasons why people local food. In each of the studies, freshness, supporting the local economy, and knowing how and where the food was produced were important factors in the decision to buy locally. As well, supermarkets are the number one outlet for purchasing local foods.

Regional

Not being confined to selling products in a specific location lends regional marketing initiatives to the potential of capturing greater economic value compared to many initiatives that are defined as 'local'. Regional marketing initiatives often take the form of agreements between specific producers of a common region to market a product that is deemed specific to a region.

Regions are increasingly used as a marketing feature to differentiate products from the industry average. Common practice in Europe, where specific labels have been created to certify and protect the use of a regional product name, is the use of certifying products as originating from a particular region where it has been produced, and defending such through legal channels if necessary. The European Union identifies two types of food quality names based on their geographical origin: the protected geographical indication (PGI) and the protected designation of origin (PDO). Once these names are registered, they are protected against the sale of any other competing imitation product seeking to use the reputation of the name of origin.

Currently, there is no such recognized label in Canada. However, a group of sheep producers of Charlevoix, in Quebec called *Regroupement des producteurs d'agneau de Charlevoix* have been working for the last ten years on the development of a protected geographical indication (PGI) for lamb labeled as "Agneau de Charlevoix". The 1996 initiative resulted from a 60 per cent decline in farm numbers in the Charlevoix region between 1980 and 1995. Its objective is to halt further declines in farm numbers by enabling greater value to be captured from the market: thereby increasing producers' returns. The idea to develop a PGI for the "Agneau de Charlevoix" was inspired by the European model of geographical certification that has helped some rural regions to revitalize specific agricultural production.

The *Regroupement des producteurs d'agneau de Charlevoix* is currently awaiting PGI certification from the Quebec Ministry of Agriculture, Food and Fisheries (MAPAQ). While this would be the first PGI certification awarded in North America, the producers already market their lamb under the name of "Agneau de Charlevoix". While the label has relatively strong notoriety in Quebec compared to other regional lamb labels, PGI certification would enable the group to strengthen its competitiveness through allowing them to legally defend the brand against counterfeits. For instance, restaurants that are not business partners of the producers' group were featuring lamb on their menu as "Agneau de Charlevoix" even though it was not produced in "Agneau de Charlevoix". Having the option to legally defend a brand (in the same way as if possessing a regular trademark) is a major benefit of attaining PGI certification.

While the regional marketing initiative has been successful for the *Regroupement des producteurs d'agneau de Charlevoix*, it took more than five years and a lot of commitment to develop the notoriety surrounding the product. After 10 years they are still working to get a protected geographical indication (PGI) in Canada. Regardless, this producers' initiative is certainly the most successful example of regional marketing in terms of Canadian lamb.

Value-Adding

Today's consumers spend less time preparing and cooking meals than in the past. They increasingly seek value-added products or ready to cook meals in order to lessen effort in preparation and/or cooking time (Hughes, 1999; 2004). Value added products command a higher price for two main reasons. Firstly, they are costlier to prepare. Secondly, they offer greater value through saving consumers' time in preparation and/or offering greater consistency and a pleasurable eating experience. A third reason is better presentation and perceived added value to a potential consumer. According to McDonald (2004) the chicken industry has been a leader/trend setter in value-adding meat. There are many value-added chicken products available that are heat and serve, including marinated breasts or breaded chicken fingers. Other commodities such as beef and pork have been relatively slower to develop these types of products. One consequence of that is losing market share to the poultry industry.

Value-added products from lamb are a relatively underdeveloped business segment. The growing demand for further processed meat products, such as pre-marinated meat and pre-cooked dinners is increasing and could benefit the lamb processing industry. To date, a market analysis to measure the potential economic benefit of developing value-added lamb products has not been undertaken in Canada. That the opportunity exists however is shown by Canadian Prairie Lamb, a company that developed the value added lamb products segment in Canada.

Based in Saskatoon, Canadian Prairie Lamb was formed in 2001 through progressive development within the Sheep Producers of Saskatchewan. The goals set forth by Saskatchewan lamb producers were to develop a company that would aggressively develop lamb based value-added products for the retail marketplace throughout the world. The company includes 200 sheep producers located throughout Saskatchewan.

The company focuses its business on innovation, quality and customer service. To assist in developing value added products, both in raw and precooked retail packages, Canadian Prairie Lamb has developed an alliance with the Saskatchewan Food Development Centre which is a federally inspected facility (Canadian Prairie Lamb, 2006)

The company markets heat-and-serve products, including the following: Fully Cooked Seasoned Lamb Kabobs, Seasoned Lamb Kabobs, Greek Style Precooked Lamb Meatballs, Parmesan Precooked Lamb Meatballs, Fully Cooked Lamb in Moroccan Orange Sauce, Tunisian Lamb Cocktail Sausages and Roasted Garlic & Peppers Lamb Sausage. According to McDonald (2004) these products have been successfully sold to Costco, Butcher Boy of Regina and Emco Finer Foods. Costco (east) is selling the individually wrapped, marinated and pre-cooked lamb kabobs, and the lamb appetizer meatball with feta and parmesan cheese and dipping sauce.

3.2.8 Marketing Channels

Promotion and marketing

Different marketing channels and promotional efforts are currently employed for lamb and sheep meat products in Canada. In particular this section looks at how lamb and mutton are promoted, including any difference in grades and standards, processors revenue stream, as well as alternative channels for marketing lamb and mutton, and if benefits could be gained from

marketing mutton and lamb differently. It also looks briefly at regional marketing initiatives, value-added meat products, and which outlets Canadian lamb is sold through. While little appears to have been written about how lamb and mutton are promoted differently in Canada, international cases exist of where mutton and lamb are promoted separately. In the UK, the promotional and advertising activities of Mutton Renaissance put a lot of emphasis on the quality and taste of mutton. In New Zealand and Australia, mutton is promoted for intuitional catering and for further processing in developed and developing countries (McDonald, 2004).

Although it appears that there is little difference in the way lamb and mutton is promoted in Canada, evidence indicates that it should be marketed differently. For example, McDonald (2004) states that maturity should be part of the grading or classification system to differentiate lamb from mutton in order to meet consumer preference. McDonald also identified a study by the University of Nevada showing that lamb promotion has a positive effect on mutton sales.

Conducted in a local grocery chain, the University of Nevada study found that special price features and advertising sell more lamb, even after the price has returned to normal. The study resulted from researchers noticing that lamb had poor availability (i.e. not available at all stores or often out of stock) and was not being featured in promotional material for a local grocery chain. This led to the researchers deciding to test promotional techniques such as logo stickers, aggressive pricing, and print advertisements to increase lamb sales.

The lamb retail cuts were priced at a level that was comparable to similar beef cuts and it was observed that five to ten times of the typical volume of lamb were being sold by the retail chain due to the lower prices and promotional efforts. After prices returned to normal the volume of lamb being sold continued to be four or five times higher than the regular volume sold at the start of the trial. It was also observed that, not only did the promotional techniques used increase lamb sales, they also helped increase sales of processed mutton products. This study provides insights about the marketing potential of lamb, and how lamb promotion can lead to increased sales of processed mutton products. It suggests that there is a potential synergy between lamb promotion sales and processed mutton sales.

Grading

Canadian legislation surrounding grades and standards related to lamb and mutton production are contained in the *Regulations Amending the Livestock and Poultry Carcass Grading Regulations*. Grades and standards defined in the *Regulations Amending the Livestock and Poultry Carcass Grading Regulations* are mandatory to the marketing of ovine meat in Canada.

The *Canada Agricultural Products Act* provides the authority for the Governor in Council to make regulations establishing grades and standards for agricultural products. Pursuant to this Act, the *Livestock and Poultry Carcass Grading Regulations* specify the national grade standards for livestock and poultry carcasses graded in Canada. The Canadian Food Inspection Agency is responsible for the *Livestock and Poultry Carcass Grading Regulations*.

The lamb and mutton grading program used in Canada was modified in 1999 to facilitate trade and marketing by establishing a basis for product quality and pricing (Canada Gazette, 1999). Since 1999 the Canadian Sheep Federation has been accredited by the Canadian Food Inspection Agency to provide the grading service subject to federal monitoring on a cost recovery basis. The new lamb grading system still allows producers and packers to value lamb carcasses, however, the grading standards are also used to market lamb products on the basis of grading information. There are two types of grades used to classify lamb: quality and yield.

Current quality grades are Canada AAA, Canada C1 and Canada C2. Canada AAA graded lamb must then be classified into one of four yield grades. These four yield grades are Canada 1 to Canada 4. The yield grades are based on the GR measurement, which is the muscle conformation and body wall thickness in millimetres. For example, a minimum GR of 4 mm is required for a carcass to qualify Canada AAA grade. Furthermore, the carcass has to indicate a minimum muscle conformation score and a minimum of trace fat streaks in the flank muscles. These criteria are established to eliminate under-finished or poor quality carcasses.

Youthful carcasses which meet all the quality factors for the Canada AAA grade but which lack muscling or are under-finished would be graded Canada C1. Carcasses with dark colour meat or yellow fat would be graded Canada C2. Fat and meat colour are measured objectively using a Pantone colour fan and processors are allowed to stamp the quality and yield grades on the carcass. A summary of the grading system can be found in Table 3.2.7. The Canadian grading system also allows for qualifying the carcass as a lamb or mutton, and mutton and lamb are classified into two different grades level by the Canadian grading system.

Maturity characteristics for lamb require the following (Canada Gazette, 1999):

- Fewer than two permanent incisors.
- Two break joints, or, in the case of a carcass with one break joint and one spool joint, the break joint has four intact well-defined ridges with at least a slightly red and damp surface.
- Ribs that are no more than slightly wide, tend to be rounded rather than flat and are reddish in colour

In contrast, maturity characteristics for mutton require the following (Canada Gazette, 1999):

- Two or more permanent incisors.
- Two spool joints, or, in the case of a carcass with one break joint and one spool joint, the break joint has a dry and mainly white surface.
- Ribs are wide, flat and white.

Table 3.2.7: Livestock and Poultry Carcass Grading Standards

Quality Grade	Maturity	Fat/ Muscling	Yield Grade
Canada AAA	·less than 2 incisors; or 2 break joints; or 1 break joint with rounded ribs and a pink to red colour	·GR \geq 4 mm ·individual muscle score \geq 2.0 and average muscle score \geq 2.6 ·trace fat streaking ·firm	·Y1 if GR (13 mm; ·Y2 if GR \geq 13 and (19 mm; ·Y3 if GR \geq 19 and (25 mm; ·Y4 if GR \geq 25 mm
Canada C1	·same as Canada AAA	·GR (4 mm ·individual muscle score \geq 1.0 and average muscle score (2.6	·none
Canada C2	·same as Canada AAA	·yellow fat ·dark red meat	·none
Canada D1	·2 or more incisors; or 2 spool joints; or 1 spool joint with flat ribs and dark red coloured meat	·GR < 13 mm	·none
Canada D4	·same as Canada D1	·GR \geq 13 mm	·none

Source: Canada Gazette, 1999.

McDonald (2004) states that lamb grading and packaging practices can confuse consumers. In particular, when Canadian grade labels (AAA, C1, C2, D1, and D2) are applied to fresh lamb packages, the level of quality is not clearly indicated. This is largely because the AAA category is broad and consumers generally expect to see the AA and A categories graded in a distinct fashion, as occurs for beef. The potential for negatively impacting consumers' perception of lamb quality due to inconsistency in quality ranking approaches compared to beef, and their lack of awareness in differences between beef and lamb grading practices, could be significant.

Another concern identified by McDonald (2004) is that the average muscle score to qualify for any of the AAA categories is 2.6 (overall) and 2 (individually). With the majority of Canadian lambs scoring between 2 and 4 anyway, it could easily be argued that the Canadian lamb grading system does provide sufficient differentiation between grades, or consistency within a grade, to inspire consumer confidence. Furthermore, while characteristics such as tenderness, flavour, leanness, and eye appeal, are often more important to the consumer than grade, they are not addressed directly in the Canadian grading system.

Revenue Streams

It is difficult to ascertain processors revenue stream in Canada. In the United States, the Market News Services of the USDA publish a weekly cutout report entitled the USDA Estimated National Lamb Carcass Cutout. This report features average price cuts, price changes from the previous week, cut percentage of the carcass, and average weight of the cut. It is a useful tool for depicting demand or at least price level trends for specific cuts, as well as the yield of each cut. As well, the report allows for a comparison of price performance of each cut against the price performance of the overall carcass. The information is obtained from companies that voluntarily participate in the USDA Livestock Mandatory Reporting practice.

Currently, Canada does not have a similar detailed lamb market report. The closest comparable service is provincial marketing agencies publishing of information on volumes and prices of lamb in Canada. For example, the Ontario Sheep Marketing Agency and *La Federation des Producteurs d'Agneaux et de Moutons du Quebec* publish a weekly report featuring volume and prices. Prices are published for 6 and 5 different carcass and weight categories, respectively. However, in Canada, no information is published by lamb processors or the ovine processing industries. With access to dissimilar levels of market information from primary and secondary processing operations, Canadian producers are at a disadvantage compared to US producers. Without doubt, national carcass cutout reports about yields and prices for each cut of meat would provide better market information to producers. It would also benefit both producers and the marketing boards to have greater information on the volume of sheep meat processed. A possible option for overcoming the current lack of information, and providing significant benefits to industry in the process, would be to use the mandatory ear-tag traceability system to record carcass performance at the individual producer level (proprietary information), and general grade / volume performance at the industry level (generic information).

Although USDA Estimated National Lamb Carcass Cutout report provides information related to processing and market trends it is important to take into account specific particularities of the US industry. The USDA report uses an average carcass weight of 72-75 lbs. According to Sean Firth, a livestock specialist with AgraPoint, Nova Scotia, this carcass would be heavy for Canada, where average carcass weight would in the 40-50 lbs range. This means that the yield of cuts in the US is likely to be different than in Canada and the information from the U.S. is not directly transferable to Canadian producers and processors.

Market Growth

Canadian sales of lamb at the retail and foodservice level are difficult to obtain. However, AC Nielsen MarketTrack does collect data on fresh lamb sales at the retail level. Table 3.2.8 illustrates this data and year-over-year sales growth for 2002, 2003 and 2004.

Table 3.2.8: ACNielsen Fresh Lamb Sales, Retail Level

	Fresh Lamb Sales, Millions	Growth Rate Percent
2002	\$47.6	
2003	\$49.7	4.3
2004	\$53.1	6.9

Source: ACNielsen Market Track Data

Retail sales of lamb in the fresh meat category from 2003 and 2004 grew by 6.0 % and 4.6 % respectively. The fresh meat category comprised sales of beef, pork, poultry, lamb and other fresh meats (non-specified). Taken over the years cited above, the overall sale of fresh meat through retail grew faster than the rate of sales growth in fresh lamb alone. Separated by year, the growth rate of the fresh lamb through retail was under the category growth for 2003, but above the category growth for 2004. It is important to remember however that through 2002-2004 sales of fresh lamb sales in supermarket only represents one percent of the fresh meat category: and did not fluctuate during this period.

Between 2002 and 2004, overall average lamb sales (retail and foodservice) grew by 5.6 per cent, compared to 5.4 % for the overall fresh meat category. This indicates that the lamb sales are growing slightly faster than the overall fresh meat category sales. Surprisingly, the ‘other fresh meat’ category grew by 19.4 % and 25.6 % for 2003 and 2004. As a share of the whole fresh meat category they increased from 5.9 % to 8.0 % during this same period.

The outstanding growth performance and category share gain for ‘other fresh meat’ (which includes bison, elk, etc.) could be viewed as an indication of the readiness of consumers to buy new types of meat and could thus be perceived as potential market opportunities for lamb and mutton products. As the AC Nielsen dataset does not allow desegregating the category sales into sub-categories to identify the products that have led to the strong growth of the other fresh meat category, further market analysis would be required to estimate exact drivers of the other fresh meat category growth.

McDonald (2004) had identified and summarized from Ringkob (2001) the reasons why researchers feel lamb sales have not performed to their potential at the retail level. These reasons include:

- Lamb is often out of stock, because it is usually the last meat processed, preventing sales.
- Many meat managers believed that lamb would sell only in wealthy neighborhoods.
- Lamb was not included in chain-wide weekly promotions because it was not available in all stores.

All of these factors provide a barrier to the marketing of lamb at the retail level in Canada.

3.2.9 Summary

Without doubt, opportunities appear to exist for expanding the market share and value of lamb produced in Canada. Consumption is steadily increasing on both a per capita and overall basis, and many consumers appear open to trying new red meats and meat products, particularly if offering added value through innovation in terms of convenience and/or eating experience.

However, a review of the literature highlights a number of factors that, if substantiated, appear likely to limit the industry's ability to take advantage of long-term market opportunities: particularly compared to the major red meats of beef, chicken and pork.

The largest single factor restricting the industry from developing opportunities to market lamb according to changing consumer behaviour may be the high percentage of Canadian lamb slaughtered in provincially inspected facilities. With a significant percentage of lamb sold through supermarkets and other retail outlets, many of whom source only federally inspected products for reasons relating to food quality and safety, supplying the majority of lamb through provincially inspected plants is likely to limit the potential range and value of market opportunities. For similar reasons, the same rules and restrictions apply to supplying much of the foodservice sector too: further limiting market opportunities for Canadian lamb.

Furthermore, it is possible that many provincially inspected processors lack resources required to utilize technology, etc., to improve the quality, consistency, and cost effectiveness of producing lamb products compared to federally-inspected processors. If so, this would be another factor impacting the ability of Canadian lamb to capture market opportunities.

Other issues that appear likely to negatively impact the potential size and value of the market for Canadian lamb are issues surrounding quality, consistency, marketing and merchandizing. Regarding quality and consistency in particular, current grading standards do not appear to have been developed according to market demand. Current grading categories allow for inconsistencies in quality to occur, are potentially confusing to consumers – including in comparison to other red meats, and do not reflect factors that can have greater influence on consumption than the aesthetic determinants around which most grades have been developed.

In terms of encouraging improvements in the production of Canadian lamb in line with market demands, the current lack of detailed information of prices, volumes, and yields available to industry participants is a concern: particularly given the level of information currently available to (arguably) the comparatively more advanced operations and capabilities of the Canadian beef, chicken and pork industries. Providing market analysis information would increase the level of transparency occurring within the overall industry and potentially stimulate more effective market-focused innovation. Simultaneously, such information could increase the level of collaboration and innovation occurring between businesses operating throughout the industry.

Merchandizing of Canadian lamb is another issue impacting the Canadian lamb industry. Inconsistencies in availability, the lack of well coordinated and professionally delivered point-of-sale promotions, as well as poorly managed in-store displays, detract consumers' attention from purchasing and consuming Canadian lamb. So is a lack of products that meet changing consumer demographics, including Muslim, Jewish and other ethnic groups.

Given gaps between described Canadian lamb industry activities and consumer demands, it is perhaps not surprising that imports from highly sophisticated economically efficient lamb producing are increasing. The next section assesses the lamb industries of the largest importers of lamb in to Canada: New Zealand and Australia. An analysis is also provided of Canada's closest lamb producing competitor and trading partner: the United States.

3.3 The New Zealand Lamb Industry

3.3.1 Industry Overview

Since the abolition of income support for producers and the deregulation of much of its agricultural industry during the 1980's, the New Zealand sheep industry has changed radically. In two decades, fewer sheep are producing a similar number of lambs to before, and meat rather than wool is producers' primary source of income (Sheep & Wool New Zealand, 2006). Improvements in genetics and flock management have improved productivity per ewe, and consistency in terms of quality, value and yield of meat per lamb (Travis, 2006).

These improvements, combined with greater coordination between processors and producers, and innovations processing, packing and transportation practices, and the adoption of new business models, have seen the viability of New Zealand's sheep and lamb industry increase markedly over the last decade (Nelson, 1996). One example of developments in processing is the widely used practice of using innovative technology to accurately grade meat against specifications that reflect known market requirements. The result: improvements in the quality, consistency and value of lamb produced by New Zealand; and the ability to collect and share information with suppliers in order to improve flock management and breeding activities.

Sheep production occurs throughout most of New Zealand, with the largest inventories in Canterbury and Manawatu-Wanganui. New Zealand's 2005 sheep stock of almost 40 million head accounted for 3.7 percent of total global sheep stock. This is a decrease of 18 percent from 1995, when New Zealand's sheep flock totalled 48.8 million head (Statistics New Zealand). Compared to most countries, the ratio of lambs to its overall sheep flock is relatively high. This infers that New Zealand's productivity per ewe is amongst the highest of any lamb producing nation. Data from Statistics New Zealand puts the lamb flock at 33.1 million head in 2005. Table 3.3.1 has a breakdown of the sheep and lamb flocks by region for 2003 and 2004.

Table 3.3.1: Sheep and Lamb Inventory in New Zealand by Region, 2003 and 2004, Thousand Head

	Sheep '000		Lamb '000	
	2003	2004	2003	2004
Northland	530	494	362	373
Auckland	361	325	..S	222
Waikato	2,409	2,457	2,017	2,058
Bay of Plenty	356	409	311	336
Gisborne	1,870	1,848	1,465	1,400
Hawke's Bay	3,923	4,306	3,020	3,080
Taranaki	665	687	519	527
Manawatu-Wanganui	6,517	6,264	5,576	4,994
Wellington	1,780	1,943	1,545	1,474
Tasman	403	342	301	260
Nelson	..S	14	..S	13
Marlborough	741	675	496	417
West Coast	84	82	74	77
Canterbury	7,970	7,528	6,202	5,726
Otago	5,945	5,841	5,046	4,884
Southland	5,855	5,982	5,997	5,982
Total New Zealand	39,552	39,255	33,247	31,854

Source: Statistics New Zealand, Agricultural Production Statistics

There are approximately 15,000 commercial sheep farms in New Zealand today. The total production of sheep and lamb in 2004 was over 518 thousand tonnes. At over 411 thousand tonnes in 2004, lamb accounts for the majority of the production (New Zealand Ministry of Agriculture, 2005). Slaughter in 2004 was over 24 million head: 4.4 million head of sheep and 23.8 million head of lamb. Table 3.3.2 shows production and slaughter of sheep and lamb in New Zealand from 2001 to 2004.

Table 3.3.2 – New Zealand Production and Slaughter of Sheep and Lamb, 2001-2004, Thousands

	Production – metric tonnes		Slaughter – head	
	Sheep	Lamb	Sheep	Lamb
2001	129	433	5,507	26,256
2002	107	414	4,654	24,711
2003	113	433	4,880	25,693
2004	107	411	4,446	23,833

Source: New Zealand Ministry of Agriculture, Slaughter Statistics

3.3.2 Industry Structure and Governance

New Zealand has been proactive in establishing organizations to co-ordinate and organize meat production. In 1921, the New Zealand Board of Control was created with the aim of regulating the New Zealand industry and cooperatively marketing the products and negotiating prices and freight (Clemens and Babcock, 2004). The following year, the Meat Export Control Act created the New Zealand Producers Board and in 1923, the New Zealand Meat rosette was introduced to identify New Zealand meat products, and is still used today (Clemens and Babcock, 2004).

In the 1960's and 1970's, New Zealand sheep producers were highly subsidized by the government and by 1984, New Zealand's sheep flock totaled 69.7 million animals and government support accounted for 40 percent of sheep producers income (Barnard, 2003). However, in 1984, all government subsidies were eliminated, and restructuring of the agricultural industry began. This loss of government support was a turning point in changing producer dependence on subsidy-driven volume-based production, to an industry structure that emphasized production efficiencies and product quality based on identified market demands.

Following a producer referendum, on July 1, 2004, the New Zealand Meat Board and Sheep Incorporated were restructured under the *Commodities Levies Act* to form Meat and Wool New Zealand (Champion, 2006). Meat and Wool New Zealand is a voluntary organization funded by livestock producers through levies on all beef, goats and sheep slaughtered, and wool sold. Levies can be spent for the following purposes related to the meat and/or wool industries:

- Trade policy
- Market development of red meat
- Research
- Protection and improvement of animal health and welfare
- Information collection
- Representing livestock farmers
- Industry services
- Supply of technical advice to users of New Zealand wool
- Administration of the company.

(Meat and Wool New Zealand, 2006)

The future of Meat and Wool New Zealand will be decided every five years through a producer referendum (Champion, 2006). If not satisfied with its performance, producers have the ability to seek the establishment of an alternative organization for assisting the sheep and wool to take advantage of market opportunities.

Meat and Wool New Zealand actively works to encourage collaboration between producers and processors. In addition to its mandated work of market research and facilitation, and policy development, producers and processors sit on the Meat Promotion Group that advises Meat and Wool New Zealand on the development of marketing and promotional plans relative to supply. Joint Venture funding is also offered to processors looking to establish differentiated markets that are outside Meat and Wool New Zealand's usual operations.

While minimal in relation to exports, importation of lamb into New Zealand is allowed so long as they meet certain standards and regulations. Legislation regarding the importation of lamb falls under the *Import Health Standard*. Importations of lamb for human consumption must obtain biosecurity clearance (Biosecurity New Zealand, 2006). Private consignments of sheep meat can be given clearance provided that certain requirements are met; including: country of origin should be easily discernible from the packaging; the product is commercially packaged; and, the product is sealed within its original packaging upon arrival (Biosecurity New Zealand, 2006).

The Animal Identification and Traceability Working Group (AITWG) was established in August 2004 to consider domestic and international trends in animal identification and traceability, and propose a way forward to enhance New Zealand's existing systems (New Zealand Ministry of Agriculture and Forestry, 2006). Meat and Wool New Zealand is a member of the Working Group.

In July 2005, the AITWG distributed a report for industry consultation which proposed an enhanced animal identification and traceability system (with an initial focus on cattle and deer). Major changes would include: migration of existing animal identification for cattle and deer onto a single unified framework that can be used for a range of agreed purposes recording of all movements of cattle and deer to enable trace forward and trace back of individual animals establishment of a core database which connects individual animals with properties and people (Ministry of Agriculture and Forestry, 2006).

The AITWG proposed initial uptake on a voluntary basis, with the new system mandatory by October 2007. While the focus is on cattle and deer (which already have compulsory animal identification for the national bovine tuberculosis pest management strategy), the aim is to provide an infrastructure suitable for other livestock industries to consider and adopt as appropriate (Ministry of Agriculture and Forestry, 2006).

3.3.3 Exports

New Zealand is the largest exporter of sheep and mutton in the world. In 2004, exports of New Zealand sheep and mutton accounted for 40 percent of global exports (FAOSTAT data 2006). Of these exports, approximately 80 percent are lamb, which amounts for about 85 percent of New Zealand's total lamb production.

Much has been written about how New Zealand is the world's leader in the export marketing of premium quality lamb products. New Zealand's strong brand positioning in the global market can be attributed to many factors including:

- New Zealand's dominance of more than half of the traded sheep meat market and 75 percent of traded lamb, exporting over 90 percent of domestic production;

- Development of the generic New Zealand lamb brand in premium markets;
- A strategy to increase export value through chilled and value added cuts, especially lamb;
- Productivity gains achieved by New Zealand farmers, that has enabled maintenance of production levels, despite the reduction in the flock size;
- EU quota access through historical links with the United Kingdom.

(Rabobank, 2006)

The United Kingdom is New Zealand's most important export market. New Zealand has been exporting meat to the United Kingdom since 1882 and exports of frozen lamb to the United States began in 1926 (Clemens and Babcock, 2004). New Zealand has become a leading force in world lamb imports because of a combination of favourable production conditions, focuses on continually improving production and processing efficiencies, improving meat quality through extensive genetic-focused breeding trials and flock management, and developing a business model that provides the ability to respond to international consumer demand (Clemens and Babcock, 2004).

The value of New Zealand lamb and sheep exports has been increasing. In 2004, the value of lamb exports was over \$2.0 billion NZ dollars (\$1.7 billion CAD¹) and the value of mutton and hogget (culled ewe) exports was \$252.4 million NZ dollars (\$218 million CAD).

There are two main, but significantly different, product streams for sheep and lamb exports. High quality lean lamb meat, often shipped as boneless chilled cuts, is destined for wealthier consumer markets in the EU, North America and Japan. Lower value mutton or bone-in carcass cuts are destined for developing countries such as China, Mexico, Saudi Arabia and the Pacific nations (Rabobank, 2006). The source of the sheep meat cuts has an impact on the value of exports. In 2005, New Zealand exported 26,000 tonnes of sheep meat to China, compared to only 14,000 tonnes of exported meat to Japan. However, the value of the exports to Japan was nearly double that of the exports to China (Rabobank, 2006). The main market for New Zealand lamb is the European Union (EU), which takes 51% of New Zealand's export volume, generates 62% of its export value and is subject to a tariff-free quota of 227,600 tonnes carcass weight equivalent (cwe) (Meat and Livestock Australia, 2006).

New Zealand's historical links with the United Kingdom have made it an important destination for New Zealand sheep meat. The UK is the single largest market for New Zealand sheep meat and accounts for over 64 percent of the value of New Zealand exports (Rabobank, 2006).

The manner and approach taken in exporting lamb has changed radically. In 1999, carcasses made up approximately 17 percent of exports, but in 2004 carcasses comprised only five percent of total exports by product weight. In comparison, chilled products comprised 19 percent of total exports by product weight in 2004, compared to 12 percent in 1999 (Ministry of Agriculture and Food New Zealand, 2005). There appears to be a shift away from carcasses toward chilled products. Frozen bone-in lamb cuts are now the largest product exported; followed by chilled bone-in lamb; total boneless mutton; and frozen boneless lamb.

3.3.4 Farm Receipts

Substantial productivity gains in New Zealand's sheep industry have led to increased profits. As the largest agricultural sector in the 1980's, the sheep industry was hard hit by the domestic policy and market reforms that were introduced in the mid-1980's (Rabobank, 2006). But, as can be observed from table 3.3.4, the tough conditions experienced by farmers, and the

¹ Based on Bank of Canada average annual exchange rate for 2004 between Canada and New Zealand.
\$1CAD = \$0.8636 NZ

resulting reduction in the national sheep flock resulted in changes in farming practices and increased efficiency.

Table 3.3.4: New Zealand Industry Productivity, 1983/84 and 2004/05

	1983/84	2004/05	Change (%)
Lambing percentage	103%	123%	+19%
Average lambweight (kg)	136	175	+29%
Total sheep flock (million head)	69.7	40.1	-42%
Total sheep meat production (tonnes)	644,000	517,000	-20%
Total lamb production (tonnes)	472,000	438,000	-7%

Source: Rabobank, 2006

According to the Ministry of Agriculture and Forestry New Zealand, the outlook for the lamb sector to March 2009 is positive. Slaughter numbers are expected to increase to over 26 million head as lambing percentages continue to rise. Improving genetic selection, pregnancy scanning and better flock management will contribute to increasing the lambing percentage, while sheep numbers are expected to remain stable over the outlook period. As well, the farm gate price is expected to increase from an estimated CAD\$3.31/kg cwe in 2005 to CAD\$3.48kg/cwe in 2009². Table 3.3.5 shows the outlook for sheep meat.

Table 3.3.5: Sheep Meat Situation and Outlook

	Units	2003	2004	2005e	2006f	2007f	2008f
Livestock numbers							
Mated ewes and hoggets	mil	29.1	29.4	29.4	29	29	29.4
Total sheep	mil	39.5	39.6	39.3	39.3	39.4	39.8
Production							
Lamb kill	mil hd	25.7	23.8	24.9	24.3	24.9	25.6
Average lamb weight	kg/hd	16.9	17.3	17	17.2	17.3	17.4
Lamb production	000 t	434	411	424	418	431	446
Mutton production	000 t	113	107	112	111	116	120
Export volumes							
Lamb	000 t	359	358	377	365	377	391
Mutton	000 t	88.6	84.2	88.2	86.7	91.6	95.4
Export Prices							
NZ FOB (lamb) ²	CADc/kg	472	470	497	472	480	496
Lamb schedule price ²	CADc/kg	323	318	339	328	340	354
Lamb: all grades average price ²	CAD\$/hd	54.7	55.2	57.6	56.3	58.9	61.8
Mutton schedule price ²	CADc/kg	170	159	170	162	158	170
Mutton: all grades average price ²	CAD\$/hd	40	39	42	40	39	42

Source: New Zealand Ministry of Agriculture and Forestry, 2005

² Based on Bank of Canada average annual exchange rate for 2005 between Canada and New Zealand.
 \$1CAD = \$0.8542 NZ

3.3.4 Marketing Channels

Innovation in relation to the production, processing and marketing of New Zealand lamb is a result of the elimination of agricultural subsidies (New Zealand Lamb Company Ltd., 2006). The emphasis of New Zealand's marketing approach is one of working tirelessly to maintain a strong and positive image for their product in order to stay on the same level as subsidized lamb. New Zealand lamb is differentiated from other lamb on many different levels, including quality, tenderness, and traceability standards.

Four companies dominate the New Zealand lamb processing industry (NZ Ministry of Agriculture and Forestry, 2006). The largest is PPCS Limited, followed by Alliance Group Limited, AFCO Holdings Limited, and ANZCO Foods Limited. Around 55 meat export slaughterhouses were registered in October 2004, together with seven local market abattoirs. Of the 55 meat export slaughterhouses, 39 handled sheep. In early 2005, new single-chain export-standard sheep slaughtering and processing plants built near Invercargill, Rakaia and Marton became operational.

The industry has excess sheep and beef slaughtering and processing capacity and procurement of livestock from producers is very competitive. Processors increasingly work closely with producers to source consistently high quality animals. Communications between the two levels of industry largely occur at meetings held in regional centres at the beginning and end of each season (Reid, 2006). Of increasing occurrence is the production of lamb through genetic bases, bred for supplying meat to specific market requirements.

The development of higher value markets has also been part of the successful transformation of the New Zealand sheep meat industry. Some of these arrangements involve producer groups, formed to supply sole processors on a dedicated supply basis. Instead of shipping frozen sheep carcasses which reduced opportunities to capture premiums through the supply of high value or value-adding practices, technological developments have enabled chilled boneless product to be exported to far flung nations. The promotion and merchandizing of such are supported through sophisticated marketing strategies (Rabobank, 2006).

New Zealand lamb producers are also beginning to work with lamb industries of other nations to supply international markets with consistent quality lamb on a year-round basis. One of the first examples of this is an initiative between New Zealand and UK producers and processors for supplying Marks and Spencer, a differentiated retailer based in the UK (Nelson, 2006).

The brand image of New Zealand is particularly strong. Early development of country-of-origin branding for New Zealand lamb has provided a point of differentiation in the market and has led to premiums for New Zealand over other brands in the export market. As well, producers of New Zealand lamb and sheep heavily promote the quality of their product, which is based on strong health and safety standards. New Zealand has a Geographical BSE Rating of Level 1, and adheres to Hazard Analysis Critical Control Point (HACCP) standards.

Significant emphasis is placed on maintaining hygienic and quality practices. Beginning on the farm, these practices are used for both phytosanitary and marketing purposes. While not mandatory, an increasing number of processors and exporters require producers to adhere to HACCP principles in their own operations. The aim is to help ensure that a clean, safe and consistently high quality product is being produced; and to minimize the risk of losing market share due to food safety or quality related incidents. At the processor level, the Meat Classification Authority Lamb Classification System is responsible for describing how every lamb is processed at the plant, what it weighs, and how lean it is. Many New Zealand meat

processors hold an International Standards Organization (ISO 9002) accreditation. As such they are subject to third party audit for the compliance management of all their quality standards.

A process is currently used in New Zealand that involves measuring the meat tenderness. This process is known as “Accelerate Conditioning and Aging”, and it speeds up the natural aging process which takes place in meat following slaughter. This positively affects the tenderness of all cuts of lamb, and is one example of a value-added lamb product available in New Zealand. Other marketing and quality related innovations developed in New Zealand include the use of pH measurement to identify high quality cuts and carcasses, and improve both handling and production practices.

3.3.5 Summary

New Zealand is, without doubt, an extremely successful and innovative producer of sheep meat products, particularly lamb. Changes in the legislative and policy climate resulted in industry leaders being stimulated, and free, to innovate according to market demands. This has become a strategic advantage of New Zealand’s sheep industry.

Significant emphasis has been placed on improving genetics, management practices and processing techniques to produce lambs that consistently meet specifications set by the target market. Consistently meeting market specifications is one way that New Zealand’s lamb industry has successfully improve industry profitability; as has the use of technology to grade sheep cuts in a highly regimented fashion.

Emphasis has also been placed on producing lamb rather than wool, increasing lambing rates to maintain production efficiencies, and improving producers’ business management capabilities through communication with each other and the rest of the chain.

With excess processing facilities, processors are aware that maintaining a viable business and sustaining their own competitiveness increasingly relies on working with leading producers to supply lambs that meet specific market demands. Relationships are strengthening throughout the chain, often resulting in dedicated supply arrangements and more effective price grids. New Zealand lamb producers and processors are also beginning to share their capabilities with other nations in order to supply international markets with consistent quality lamb year-round.

3.4 The Australian Lamb Industry

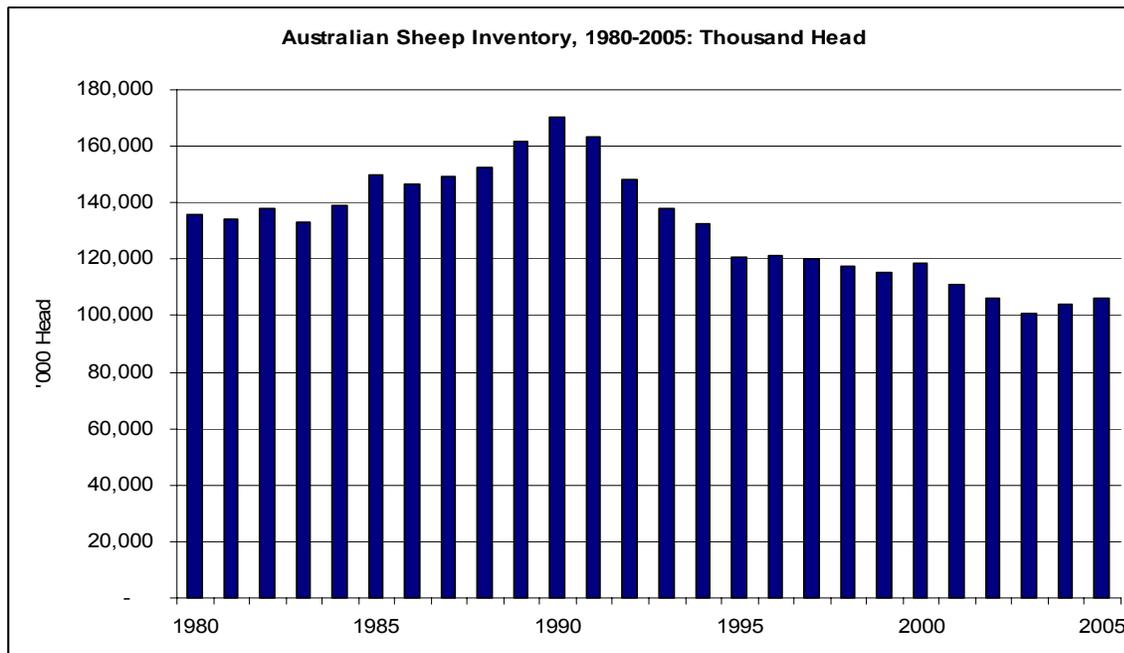
3.4.1 Industry Overview

The development of the Australian sheep industry has historically been dominated by the wool markets, with its profitability impacted by issues related to a once historically sound business model that has more recent been severely impacted by a rapidly changing natural fibre industry (Meat and Livestock Australia, 2004). With these industry changes, meat production is becoming an increasingly significant driver of developments in the Australian sheep industry. A decline in raw wool demand and low returns for wool relative to returns from sheep meat has helped encourage this shift in production and led to producers focusing more resources on meat production than has historically been the case.

In 2002, an estimated 18,900 farms were involved in prime lamb production in Australia. Of these, around 7,900 derived more than 20 per cent of farm receipts from the sale of prime lambs. A further 20,400 Australian farms carried more than 200 sheep and produced wool, sheep and lambs for sale, but did not produce prime lambs (MLA, 2004b).

Australian sheep flock numbers peaked in 1990 and have been decreasing ever since. In 2005, there were over 73.3 million head of sheep on Australian farms and 29.3 million head of lamb. The majority of the flock is located in New South Wales, West Australia and Victoria. New South Wales has the largest proportion of establishments with sheep, along with the highest percentage of the total sheep and lamb flock (~34 percent). Figure 3.4.1 illustrates the changes in overall Australian sheep numbers between 1980 and 2005. The two most significant reasons for a downturn in sheep numbers during the 1990's and early 2000's were drought and a reduction in wool producing farms.

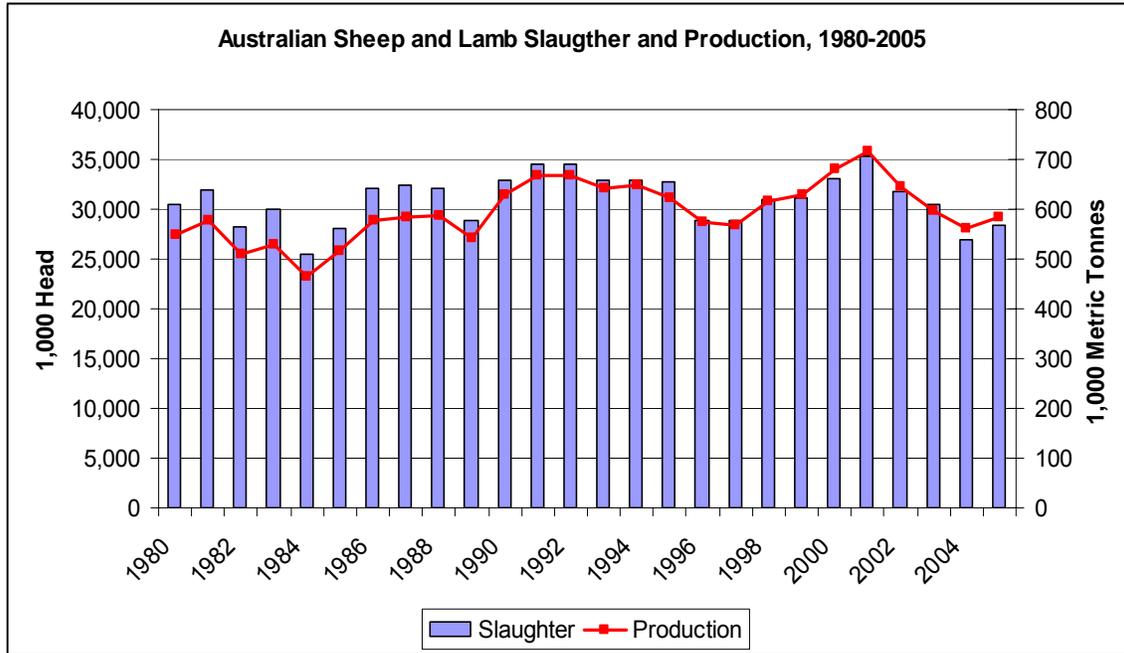
Figure 3.4.1: Australian Sheep Inventory, 1980-2005, Thousand Head



Source: FAOSTAT data, 2006

The production and slaughter of Australian lamb and sheep was fairly high during the early 1990's, but dipped off in the late 1990's. This reflects a decrease in the sheep inventory during that period. Production and slaughter began to pick up again in the early 2000's, but has been declining again since 2001. In 2005, lambs accounted for approximately 60 percent of the total slaughter and production.

Figure 3.4.2: Australian Sheep and Lamb Slaughter and Production, 1980-2005



Source: FAOSTAT data, 2006

3.4.2 Industry Structure and Governance

The interests of sheep meat producers in Australia are represented through Meat and Livestock Australia and the Sheep meat Council of Australia.

The Sheep meat Council of Australia is a national body which represents the interests of sheep meat producers. It is voluntary and is funded by memberships paid by state farming organizations and through activities performed on behalf of the Red Meat Council. The Sheep meat Council is responsible for making recommendations about the rate of levy to apply and for establishing objectives to be pursued by the levy funded organizations, such as Meat and Livestock Australia.

Meat and Livestock Australia (MLA) is a voluntary, producer-owned company that provides services to livestock producers, processors, exporters, foodservice operators and retailers. Membership is free to all producers of cattle, sheep, lamb or goats who pay livestock transaction levies. MLA is funded partially through levies and partially through government support.

Meat and Livestock Australia provides support for a variety of Industry Programs that deal with on-farm food safety and traceability and meat standards. These include: Livestock Quality Systems and the National Livestock Identification System.

The Livestock Quality System in Australia is comprised of certification programs which protect and monitor the quality of the livestock in Australia. These certification programs include: Livestock Production Assurance; National Vendor Declarations; Livestock Fodder Declarations; and Livestock Identity.

MLA's Livestock Production Assurance program is an on-farm food safety certification program that was introduced to ensure consumers that the food they buy is safe, and to maintain Australia's reputation and competitive advantage for selling safe red meat and livestock both domestically and internationally (MLA, 2006a). This program provides a set of guidelines to producers regarding basic animal production and record keeping requirements and the program is subject to independent audits.

The National Vendor Declaration is used by producers to declare information about the food safety status of the livestock being sold. It is part of the Livestock Production Assurance program and is managed by SAFEMEAT, which is an industry and government partnership responsible for managing meat safety and hygiene issues. The National Vendor Declaration acts as a 'travel document' and must accompany livestock movements. The Livestock Fodder Identification is a declaration from the vendor which indicates what chemicals that product has been exposed to.

Livestock Identity occurs through the National Livestock Identification System. This system is an enhanced identification and tracing system which allows for the accurate tracing of animals back to property at birth. Its implementation began in July 2005. This system is used by producers, feedlots, processors and sale yards.

The historical economic importance of Australia's sheep industry has led to the investment of significant resources by the Federal Australian Government into developing methods the sheep producers and the wider industry can utilize to capture added value from market opportunities. The Sheep Cooperative Research Center (Sheep CRC), which commenced in 2002 with an initial lifespan of seven years, is an example of such an initiative (Sheep CRC, 2006a).

A joint venture between many of Australia's leading sheep research, education, and commercial organizations stretching from production and slaughter through to marketing, the mandate of CRC is to ensure that the Australian sheep industry has the technology, business and management capabilities to profitably produce and deliver products desired by its customers and consumers. CRC's operations are focused on improving the viability of producing all products associated with sheep production, not only lamb, through supporting the development of innovative scientific, production, marketing, business and education based initiatives for the commercial gain of Australia's sheep industry (Sheep CRC, 2006).

3.4.3 Exports

While the proportion of lamb exported by Australia has more than doubled since the early 1990's, the domestic market still accounts for approximately 65 percent of Australia's lamb production (MLA, 2004b). Growth in lamb exports, particularly to the United States markets, has been an important factor in the more recent expansion of the Australian prime lamb industry. Although only 35 percent of lamb production is exported, the value of the export market to Australia is important to the industry's overall viability. According to Meat and Livestock Australia (2004b), between 40 and 50 percent of the total value of lamb production was derived from exports during the 2000's.

Table 3.4.1 details Australian lamb and mutton exports by the volume exported. The United States is the largest export market for lamb. It accounted for 27 percent of exported production in 2004. The EU, Middle East, Japan and China are other significant markets. As well, around 70 percent of Australian mutton production is exported (MLA, 2004b).

The principal markets for Australian mutton are Saudi Arabia, the United States, South Africa, Chinese Taipei, Japan, Malaysia, and the EU.

Table 3.4.1: Australian Lamb and Mutton Exports, Thousand Metric Tonnes

	Mutton			Lamb		
	1993	1998	2004	1993	1998	2004
United States	11.1	15.8	31.9	5.0	18.2	14.6
EU-15	6.0	9.2	14.5	8.5	10.7	8.3
Japan	8.1	4.0	7.7	25.4	13.0	9.0
United Arab Emirates	6.9	5.7	5.8	5.3	6.6	4.4
Saudi Arabia	3.8	2.0	3.6	25.2	18.0	19.5
Chinese Taipei	0.2	1.0	1.6	11.7	12.3	13.1
China		0.2	9.5			1.7
Other	19.0	39.2	43.9	85.3	84.9	68.6
Total	55.1	77.1	118.5	166.4	163.7	139.2

Source: *Meat and Livestock Australia, 2005*

Australia also exports live sheep. Between 2002-2003 and 2004-2005, live exports accounted for around 15 percent of total sheep turnoff (MLA, 2004b). While the marketing of Australian live sheep have historically been dominated by the Middle East, factors that include appreciation of the Australian dollar and suspension of trade with Saudi Arabia, have resulted in a substantial decrease in live sheep exports (MLA, 2004b). The market to Saudi Arabia has since reopened, and Table 3.4.2 details the destinations of live Australian sheep exports for 2004 and 2005.

Table 3.4.2: Australian Live Sheep Exports (Head), 2004 and 2005

Destination	2004	2005
Bahrain	490,210	521,455
Saudi Arabia	-	1,072,089
Israel	32,189	5,000
Jordan	930,343	884,886
Kuwait	1,259,904	890,563
Malaysia	21,167	19,705
Oman	289,170	358,972
Qatar	137,406	179,885
Singapore	8,948	15,530
United Arab Emirates	196,095	230,775
Other	31,708	6,078
Total	3,397,140	4,184,938

Source: *Meat and Livestock Australia, Live Export Markets*

3.4.4 Farm Receipts

The switch to placing greater focus on lamb and mutton production has influenced the selling methods used by producers. In 1990-91, over 50 per cent of all sheep and lambs were sold in the paddock and almost all the remainder were sold at auction. During the late 1990s, there was a steady decline in paddock sales. Sales have increasingly taken place over the hooks, with around 31 per cent of all sheep and lamb sold over the hooks in 2003-2004 (MLA, 2004b). As a result, paddock sales have declined to approximately 18 per cent of sales. Sales through auctions account for around half of sheep and lamb sales, their relative importance to Australia's sheep industry increasing over the last decade (MLA, 2004b).

During the 1990s, increased competition between the meat processors, combined with low profitability for sheep producers, resulted in the sheep industry readjusting from a production driven system to a more market focused system, driven by consumer demand (MLA, 2004b). As a result, processors and manufacturers place greater emphasis on purchasing products that meet their precise specifications, with demand increasing for larger leaner lambs (MLA, 2004b).

Such an approach favours 'over the hooks' sales where the sale price varies in accordance with how well the animal meets specifications. Buyers can more accurately determine whether products meet specifications such as for weight and fat cover. If the product falls outside of specifications, the price is discounted accordingly. This approach provides feedback to producers and encourages many to modify production systems to meet buyers' requirements. It has also offered producers the opportunity to increase incomes.

3.4.5 Marketing Channels

To market the finished product to consumers, Australia has developed extensive marketing campaigns, focused on both domestic and international markets. The domestic market is largest for Australian sheepmeat, thus it is a core focus of Meat and Livestock Australia's marketing activities. Also, with Meat and Livestock Australia promoting the consumption of beef as well as lamb, direct correlation exists between the approaches used to support the development of both industries from a promotional and marketing viewpoint.

While MLA focuses the majority of their marketing activities on consumers, they also promote the nutritional attributes of lamb toward, and work with, retail and foodservice operators. The major lamb consumer campaign is entitled "We Love Our Lamb". It was launched in 1999 and employs a 'tongue-in cheek' manner to create an impact (MLA, 2006b). The "We Love Our Lamb" commercials have won a variety of advertising awards, such as the Trophy for Best Food TV Commercial, Trophy for Best Use of Humour, and have been Highly Commended for Best Australian TV Commercial.

On top of the "We Love Our Lamb" campaign, MLA employs nutrition programs to educate consumers of the health benefits of eating lean red meats and as well, they conduct research to support these claims. The nutrition program is promoted through consumer communication (promoting the benefits of eating red meat to consumers), nutrition research, and through health professionals' communication.

MLA works with retail and foodservice staff to encourage and support the evolution in red meat and retailing and restaurant policies. MLA works with retailers to raise industry standards in presentation, range, quality, promotion and customer service. In particular, MLA's state-based Business Development Managers provide ongoing assistance to independent retailers across Australia, while National Account Managers for Woolworths, Coles and IGA provide category management support for the major supermarkets. Because foodservices represent 30 percent

of domestic red meat consumption, MLA also works together with foodservices to promote red meat consumption (MLA, 2006b). MLA produces a number of publications for foodservice establishments, which highlight menu ideas, food trends and food safety issues.

On the international marketing front, Australia has red meat campaigns marketed specifically at consumers in the Japanese, Korean (beef) and South East Asian markets. These campaigns focus on developing a brand recognition for Australian red meat, to ensure Australian red meat products are known as high quality, premium products, and to enforce their image as a 'clean, green', supplier of safe food (MLA, 2006b).

In Japan, Australia promotes the sale of Australian lamb through the following programs:

- Christmas promotion
- Aussie lamb cutting seminar – attended by chefs and industry representatives
- Father's Day promotions
- Black Box Cooking Competition – attended by Japanese chefs
- Retail promotion with a famed Japanese chef
- Cooking events at cooking schools
- Lamb tasting dinners.

Australian lamb is also promoted in South East Asia through a variety of means. A key method is through attending trade shows, where potential meat importers can be accessed and educated on Australian lamb.

At the retail level, representatives of MLA visit supermarkets in South East Asia regularly to liaise with retail executives, merchandise product, and to ensure that point of sales material are in stock (MLA, 2006b). To reach consumers, MLA sponsors media from overseas and communicates with nutritional professionals.

3.4.6 Summary

The Australian sheep industry is becoming increasingly focused on producing consistently high quality lamb that meets the demands of its target markets and provides a pleasurable eating experience. Industry structure and practices have changed radically over the last decade. As in New Zealand, the Australian federal government invests considerable resources in initiatives such as Meat and Livestock Australia to encourage producers, processors, foodservice and retailers to work together for mutual benefit.

To encourage industry to continually improve their business model by sharing results of international market research, foster constructive communication across the entire the industry, and work together strategically for mutual benefit, the federal Australian government funds R&D activities on a matching basis with funds provided by industry through individual investments and check-off levies (MLA, 2006c). Investments are targeted at improving operations and activities at all levels of the chain, from on-farm production through to processing and marketing (MLA, 2006b). MLA's emphasis on encouraging industry to continually improve business models is considered a highly effective method for stimulating the Australian sheep industry to continually evolve in a coordinated fashion and work strategically to capture a greater share of the international lamb market.

Australia continues to move away from the production of wool as its main source of income. It is also moving away from auction based trading practices. The primary focus is on developing a well coordinated network of businesses spanning the entire industry – from breeders and input

suppliers through to marketers and merchandisers – focused on developing the capabilities necessary to supply customer and consumer demands.

The marketing of Australian lamb is primarily the responsibility of Meat and Livestock Australia. As is the marketing and promotion of beef, Australia's largest agri-food export. Supported by a production regime focused on understanding and meeting market requirements, and ensuring quality and provenance through quality assurance measures, Australia will likely be able to capture significant market opportunities at a fairly rapid pace.

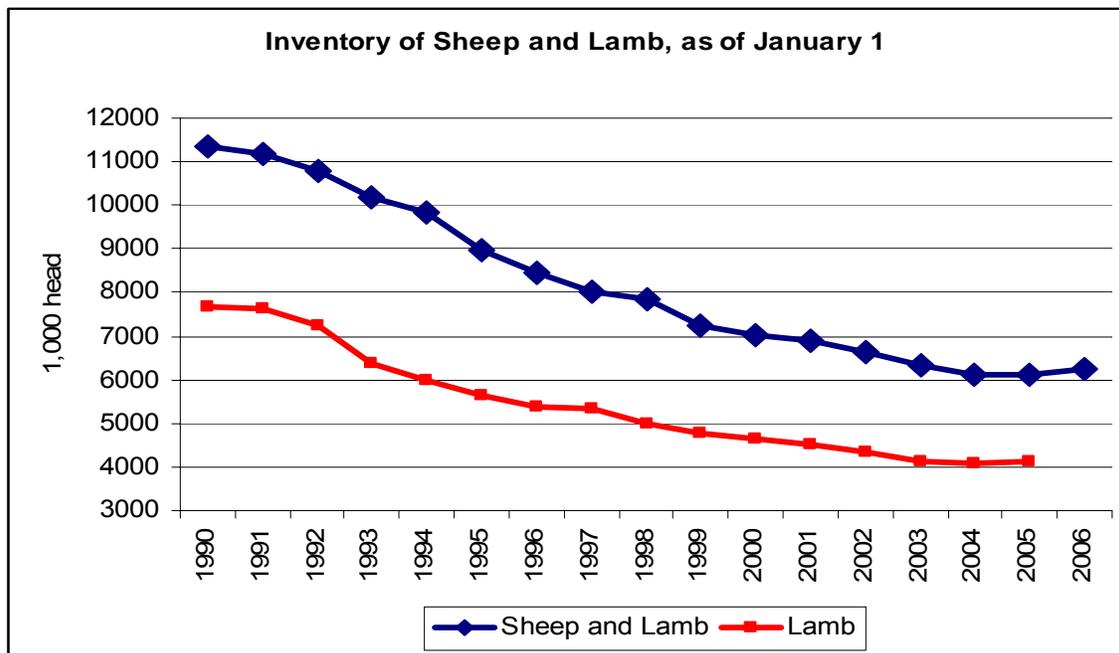
3.5 The United States Lamb Industry

3.5.1 Industry Overview

In 2005, there were 68,280 sheep farms and ranches in the United States (USDA, NASS, 2006). Sheep production in the United States is geared toward both meat and wool production. As well, some sheep are raised for producing milk, which is turned into cheese. Texas has the largest number of sheep operations, 6,900; followed by Iowa, Pennsylvania, Ohio, Oregon and Minnesota. The highest sheep producing states are located west of the Mississippi River, where larger sheep ranches tend to reside. The eastern part of the country supports a greater number of smaller operations (American Sheep Industry Association, 2006a).

On average, lambs make up around 65 percent of the total United States sheep flock, which has decreased in number by 45 percent between 1990 and 2006 (see Figure 3.5.1). Pasture production constitutes the majority of lamb production, which follows a cycle of birth and slaughter within a calendar year. Tracking annual stocking rates on January 1st may present an inaccurate picture of production trends or productivity (Firth, 2006), with actual lamb production rates and ratios per volume of breeding stock numbers therefore higher than presented.

Figure 3.5.1: Inventory of Sheep and Lamb in the U.S., as of January 1



Source: USDA NASS, 2006(a)

Of the over 6.2 million head of sheep and lamb in the United States in 2006, 1.5 million were market lambs and 76 thousand were market sheep. Table 3.5.1 shows the number of market lambs and sheep, beginning in 1995.

While the production of sheep and lamb and the number of marketings has been decreasing in the last decade, the value of production and the cash receipts received from those marketings and the sale of animals for slaughter have been increasing since 1998. In 2005, the total production of sheep and lamb was 216 thousand tonnes; marketings totaled over 259 thousand tonnes. The value of production for sheep and lamb in 2005 was over 456 million dollars; cash receipts were almost 570 million dollars. Table 3.5.2 outlines these trends since 1995.

Table 3.5.1: Market Lambs and Sheep in the United States, 1995-2006, Thousand Head: As of January 1

	Total Market Lambs '000 Head	Total Market Sheep '000 Head	Total Inventory of Sheep and Lambs ' 000 Head
1995	2,374.7	96.8	8,989.3
1996	2,161.6	77.4	8,464.6
1997	2,019.6	85.1	8,023.7
1998	2,123.1	90.8	7,825.1
1999	1,858.5	82.5	7,247.0
2000	1,789.0	80.0	7,036.0
2001	1,877.0	79.0	6,908.0
2002	1,679.4	72.6	6,623.0
2003	1,583.2	67.8	6,321.0
2004	1,540.4	65.6	6,105.0
2005	1,527.9	74.1	6,135.0
2006	1,515.0	76.0	6,230.0

Source: USDA NASS, 2006

Table 3.5.2: Production and Income of Sheep and Lamb, 1995-2005

	Production	Marketings	Value of Production	Cash Receipts
	<i>1,000 tonnes</i>		<i>\$1,000 US</i>	
1995	272	362	409,900	558,848
1996	257	355	434,998	612,477
1997	273	354	489,564	635,451
1998	252	338	354,437	484,515
1999	242	313	348,742	469,066
2000	231	294	361,231	470,176
2001	226	291	299,998	397,585
2002	220	295	313,946	429,125
2003	213	277	391,765	507,890
2004	210	259	411,278	518,847
2005	216	259	456,026	569,921

Source: USDA NASS, Meat Animals: Production, Disposition and Income

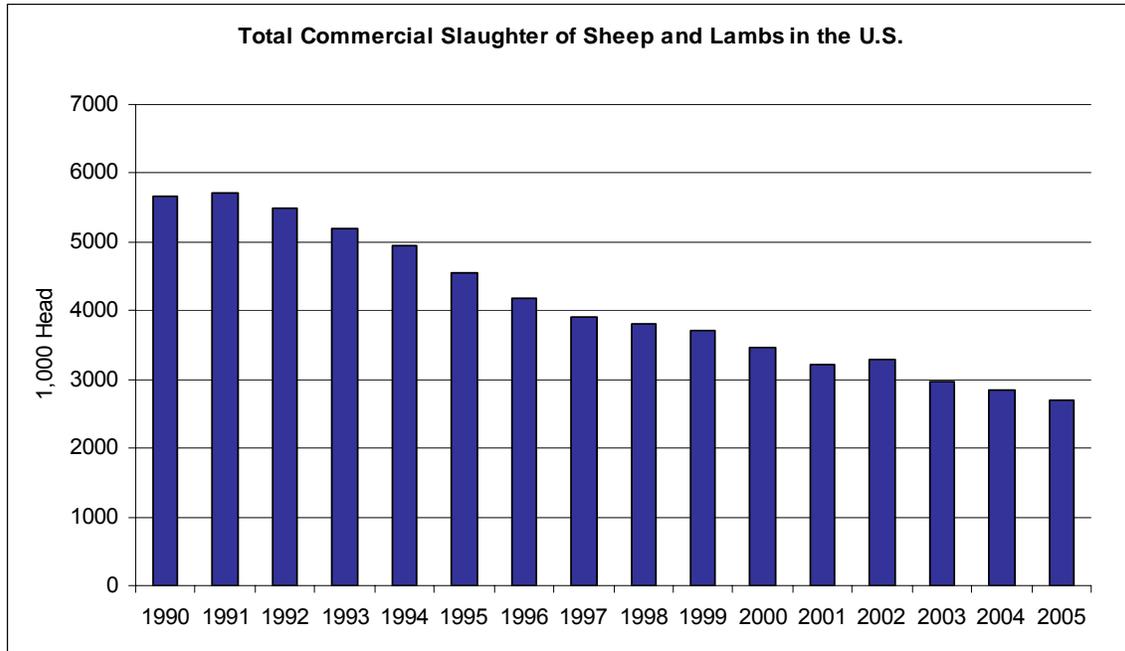
As the amount of production and marketings has decreased, so too has the volume for slaughter. 2.7 million head of sheep and lambs were slaughtered in 2007, compared to over 5.6 million head in 1990. In the last five years, approximately 95 percent of the slaughter has occurred at federally inspected plants. The average live weight per head for commercial slaughter (in the last five years) is 136 pounds. Figure 3.5.2 shows the commercial slaughter in the United States from 1990 to 2005.

3.5.2 International Trade

The United States imports lamb, predominantly from New Zealand and Australia. Figure 3.5.3 shows historical U.S. imports and exports of lamb and mutton. The figure shows that imports have been steadily increasing. In 2004 imports were over 63 million metric tonnes greater than in 1990. Exports have not shown the same growth as imports. U.S. exports were highest in this period in 1994; they then declined to a low of 2.2 million tonnes in 2000, and have since been slowly increasing.

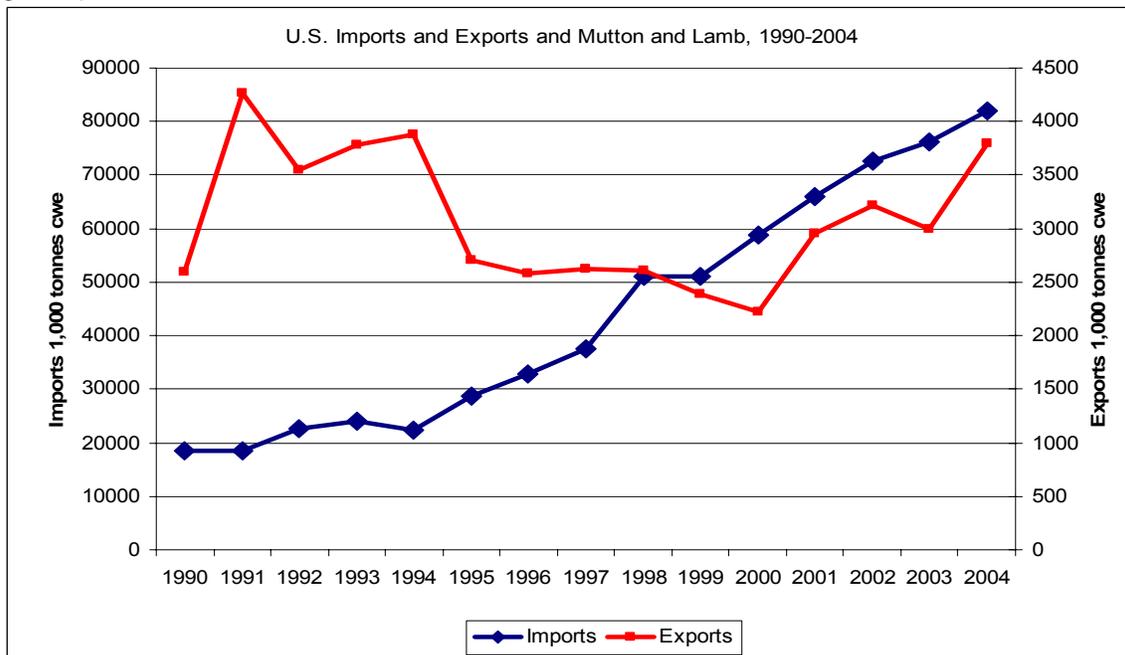
The United States also trade live sheep. Imports primarily come from Canada, exports primarily go to Mexico. Because the U.S. has a greater demand for lamb than for mutton, they import live lamb from Canada and export live culled ewes to Mexico (USDA ERS Briefing Room, 2004).

Figure 3.5.2: Commercial Slaughter of Sheep and Lambs in the U.S., 1,000 Head: 1990-2005



Source: USDA Red Meat Yearbook

Figure 3.5.3: U.S. Exports and Imports of Lamb and Mutton, 1990-2004, 1,000 Tonnes Carcass Weight Equivalent



Source: USDA, Red Meat Yearbook

3.5.3 Industry Structure and Governance

The American Lamb Board (ALB) was created by the U.S. Secretary of Agriculture to administer the Lamb Promotion, Research and Information Order. The key activity undertaken by the ALB is to strengthen the domestic lamb industry's position in the marketplace through advertising, public relations, culinary education, and retail promotions. The Board is voluntary. There are currently 13 members on the Board representing all sectors of the lamb industry, including producers, feeders, seedstock producers and first handlers.

The Board is funded through mandatory levies applied to sales of all ovine animals. Currently the fee is one-half cent for all ovine animals sold by producers, seedstock producers, feeders and exporters. As well, 30 cents per head is paid by first handlers. The majority of the funds received by the American Lamb Board are spent on promotions (roughly 75 percent); much of the remainder is spent on industry communications (Source: American Lamb Board, 2005).

With growing concerns surrounding biological diseases and the increasing need for traceability systems to meet requirements for guaranteeing safe food, in 2004 the USDA initiated the implementation of the National Animal Identification System (NAIS). NAIS is a cooperative State-Federal-industry partnership introduced to standardize and expand animal identification programs and practices to all livestock species and poultry. NAIS is being developed through the integration of three components—premises identification, animal identification, and animal tracking. The long-term goal of the NAIS is to provide animal health officials with the capability to identify all livestock and premises that have had direct contact with a disease of concern within 48 hours after discovery. (American Sheep Industry Association, 2006b)

NAIS is currently a voluntary program and implementation is being phased in across the various industries. Although the draft strategic plan for NAIS references its mandatory requirement by 2008 and beyond, to date no actions have been initiated by USDA to develop regulations to require participation in NAIS (American Sheep Industry Association, 2006b).

For phytosanitary purposes the United States has implemented import restrictions on live ruminants. These include a USDA Import Permit, a 30-day quarantine at a USDA Animal Import Center (with the exception of Canada and Mexico), an Official Health Certificate, a 60-day quarantine before entering the United States and negative test results. Test results must be negative for *Brucella abortus*, tuberculosis, and specific diseases of concern that are endemic to the region of export (USDA website, 2006).

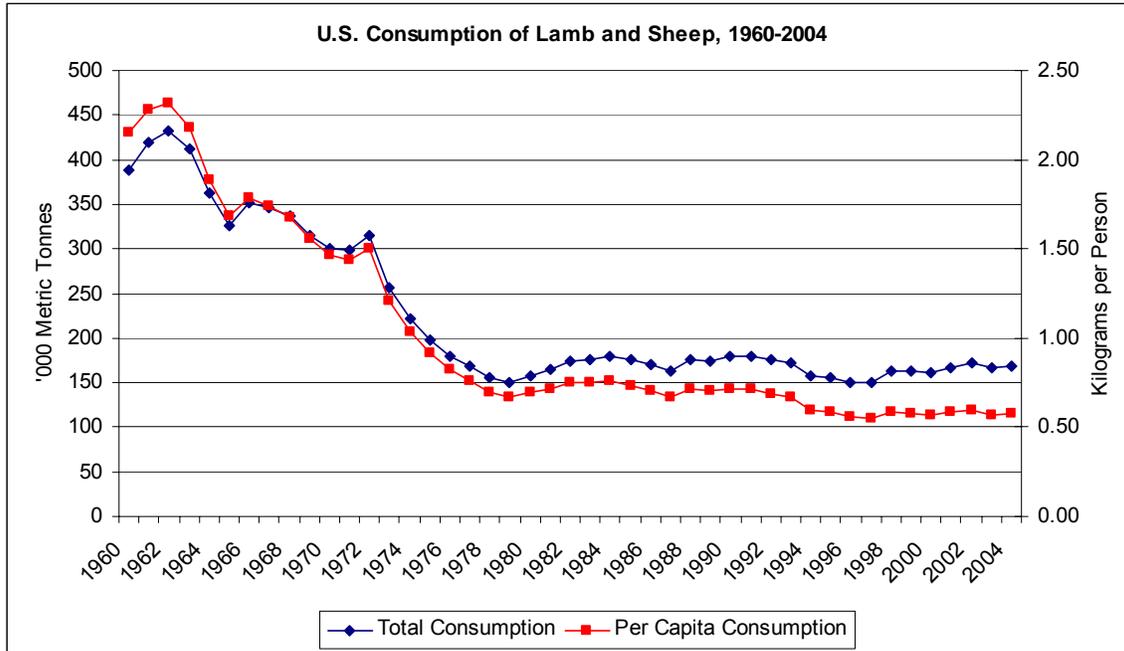
3.5.4 Lamb Consumption

Per capita lamb and mutton consumption in the United States has been fairly stable over last decade or so; ranging from 0.55 kilograms to 0.76 kilograms per person. Imports are therefore required to offset declines in domestic production. The majority of lamb and mutton imports, which account for around one-third of U.S. consumption, are from Australia (60 percent) and New Zealand (40 percent) (USDA ERS Briefing Room, 2004).

While recent consumption rates have remained fairly stable, the longer term U.S. market for lamb and mutton has weakened considerably. In the early 1960's, per capita consumption of lamb and mutton was just over 2.3 kilograms per person. By 2004 it had dropped to 0.57 kilograms per person (USDA ERS Food Consumption Data System, 2006). Total consumption of lamb and mutton has also decreased, from 388 thousand tonnes in 1960 to only 168.7 thousand tonnes in 2004.

Since hitting a low of 150.5 thousand tonnes in the mid-1990's, total lamb consumption has been slowly increasing. This may be partly due to factors surrounding immigration. The Northeast U.S. has a high concentration of Middle Eastern, Caribbean and African consumers, and is a major market for lamb products (USDA ERS Briefing Room, 2004). Figure 3.5.4 shows the long term trends in lamb and mutton consumption.

Figure 3.5.4: Historical Consumption of Lamb and Mutton in the U.S.



Source: USDA ERS Food Consumption Data System, 2006

3.5.5 Marketing Channels

Promotion and Marketing

A survey by the Economic Research Services of the USDA (2004b) indicates that there lacks a broad consumer base for sheep products in the United States and that little success has been achieved in promoting and differentiating U.S. lamb from other meats. There have also been many attempts in the U.S. to differentiate lamb meat from other meat, all with little success. As mentioned earlier, typical consumers of lamb in the U.S. are older, relatively well established, ethnic individuals who live in a metropolitan area (USDA, ERS Briefing Room, 2004).

According to the Economic Research Service at the USDA, the typical lamb consumer is an older, relatively well-established ethnic individual who lives in a metropolitan area like New York, Boston or Philadelphia in the Northeast, or San Francisco or Los Angeles on the West Coast. As well, these individuals generally eat only certain lamb cuts.

Most sheep meat in the United States is sold as lamb, and comes from animals aged under 14 months. U.S. lamb consumers prefer high-quality cuts such as legs and loins. The U.S. sheep industry typically focuses on supplying high-valued cuts to the domestic market, concentrated mainly in the Northeast and Western States because of their large immigrant populations. As such it has not capitalized on market segmentation nor developed export markets.

Most of the lower quality low-valued sheep and lamb meat is rendered or made into pet food or is exported (USDA ERS Briefing Room, 2004). The volume that is exported goes mainly to Mexico, in the form of whole mutton carcasses (USDA, 2004b). In contrast, beef, pork, and poultry markets are geographically dispersed with organized export markets and have a wide variety of consumers from all ages and backgrounds who buy a wider variety of cuts.

In an attempt to better promote American Lamb, the American Lamb Board administers programs relating to marketing and industry communications. The marketing objectives of the Board are to:

- Increase awareness of and demand for fresh American lamb among the consumer and food service segments
- Drive belief in the American lamb difference
- Minimize the volatility of seasonal product sales and promote the availability and versatility of cuts.

(Source: American Lamb Board, 2005)

The Board promotes American lamb through three different promotional venues: Consumer advertising, retail promotions and public relations. Consumer advertising mainly consists of television ads aimed at sending the message that American lamb is a “simple, pure and high quality food and distinct from imported lamb” (American Lamb Board, 2005).

As well, the Board is putting effort into partnering with retailers and suppliers in key markets to promote lamb at the retail level. This initiative is still in the developmental stages. In terms of public relations, ALB promotes American lamb to consumers and chefs as being versatile, easy to prepare and available year round – “Four Seasons – Endless Reason” (American Lamb Board, 2005).

ALB has an Industry Communications Program to increase industry awareness, understanding and support for ALB programs. The objective of this program is to communicate to the industry the responsibilities of the Board, the programs administered by the Board, and about the process and procedures of the Board.

In 1992-93, the American Sheep Industry Association conducted an audit on all stages of lamb production from farm, to processor, to consumer. The Sheep Safety and Quality Assurance (SSQA) program was a result of this audit. The program provides education, assistance and implements production objectives and procedures with the goal of ensuring a safe and high quality lamb product for consumers (Colorado State University, 2006). Producers must go through three levels to become SSQA Verified (Colorado State University, 2006): Education; Development of Site Specific Plans; and, Verification by Third party.

Grading

In the U.S., all lamb must be inspected. It is inspected for wholesomeness and disease by the USDA or by state systems. However, while inspection is mandatory, grading is not. It is a voluntary practice and plants must pay in order to have their meat graded (USDA, FSIS, 2006). Lamb graded by the USDA is sold as either Prime, Choice or Select at the retail level and lower grades, such as Utility and Cull, are mainly ground or used in processed meat products.

The ovine carcasses are classified as sheep, yearling mutton, or mutton depending on evidences of maturity, which is indicated by the development of the muscular and skeletal systems. The carcasses are then graded based on quality and yield, whereas quality mainly refers to the palatability-indicating characteristics and yield refers to the “estimated percent of

closely trimmed semi-boneless and boneless, major retail cuts to be derived from the carcass” (USDA, AMS, 1992). A yield grade is based on amount of external fat present.

Lamb carcasses can have grades for quality as prime, choice, good and utility, with prime being the highest grade. Mutton carcasses can have quality grades of choice, good and utility and cull. All of the carcasses are graded on yields the same, and are given a grade between 1 and 5, with a Yield Grade 1 having the least amount of adjusted fat thickness.

Specialty Markets and Value-Adding

Boland, Bosse and Brester (2005) described the Mountain States Lamb Cooperative (MSLC) as a cooperative that has been successful in implementing value added techniques. MSLC was formed in 2001 and has members from Wyoming, Montana, Colorado, California, Oregon, Utah, Idaho, Arizona, Nevada and South Dakota. The cooperative has developed a value based marketing program for purchasing their member’s lamb and our industry leaders in creating new and innovative consumer friendly products for retail foodservice and deli applications (Boland, Bosse & Brester, 2005). These products include EZ-Cut Loins, Four-Bone frenched racks, butterflied legs and deli and prepared food items.

Producers with MSLC receive a premium or a discount based on meat quality. Table 3.5.3 outlines these premiums and the associated yield grade. Additionally, a discount of \$0.05 U.S. is placed on all carcasses weighing over 85 pounds.

Table 3.5.3: Mountain States Lamb Cooperative Premiums/Discounts for Lamb

Premium/Discount	Yield Grade
\$0.00	1
\$0.08	2
\$0.05	3
\$0.08	4
\$0.30	5

Source: Boland, Bosse & Brester, 2005

Boland, Bosse & Brester (2005) outlined many of the errors of past value added techniques which had unsuccessfully attempted to create high quality, domestic lamb products. According to the authors, most cooperatives are unsuccessful with value added techniques because of the following reasons:

- Poor business plans
- Unrealistic marketing projections
- Too much focus on administrative issues
- Poor product and service quality
- Reliance on single source buyers and sellers
- Large fixed expenses
- An inability to market lower-value cuts
- Lack of consistent volumes
- Inadequate equity financing.

3.5.6 Summary

While per capita and overall consumption of lamb and mutton was relatively high historically in the United States, consumption rates have declined over the last four decades; albeit with a slight increase in recent years. It appears likely that there are a number of possible reasons for this. These include the lack of viable business models adopted by lamb producers, inconsistent quality and supply, failure to achieve carcass balance through the development of value-added

products or markets for lesser value and underutilized cuts. Evidence also appears to point toward the suboptimal merchandizing and marketing of lamb and mutton, particularly that which is produced in the United States. Certainly, development in production and supply arrangements for lamb appear not to have kept pace with changes in consumption behaviour; particularly in relation to developments and innovations occurring in the supply and marketing of other meats: particularly beef, chicken and pork.

In terms of production and value creation, United States stocking ratios and import/export figures paint an interesting scenario. For sometime exports (largely live sheep to Mexico for mutton production) were historically higher in volume than imports. More recently, imports comprising live lambs from Canada and processed lamb from Australia and New Zealand have increased substantially compared to changes in export volumes. While no figures are shown for relative differences in the value of this trade, it can be construed that the value of imports has increased even further compared to volume.

Another factor impacting the United States sheep and lamb industry is that, while the majority of sheep meat sold in retail is from lambs aged fourteen months or less, and the majority of lamb is processed in federally inspected facilities, seasonal fluctuation in supply and quality may alienate consumers away from locally produced product. The most concerted marketing and production initiative described – Mountain States Lamb – illustrates that, like Canada, significant opportunities exist for marketing locally produced lamb differentiated by quality rather than solely region of production: a factor with which consumers are more likely to empathize.

3.6 Conclusion

A literature of the review pertaining to the sheep and lamb industries of Canada, New Zealand, Australia and the United States, identified significant gaps between their relative capabilities and available resources. Furthermore, the speed at which the gaps are expanding appears to be increasing. Particularly when comparing the Canadian and New Zealand sheep industries. Of the four sheep industries analyzed during this review, New Zealand appears the most market-focused and innovative. Improvements in productivity, meat quality, processing, transport, and promotional capabilities have occurred quicker in New Zealand than any other country researched. This includes in comparison to their closest competitor, Australia.

Particular areas of difference between the Canadian lamb industry compared to the lamb industries of New Zealand, Australia and, where appropriate, the United States, are detailed below. As all the factors are important, and often interrelated, they are not listed in any specific order.

3.6.1 Consistency

Consumers increasingly seek consistency; particularly in terms of look, taste and texture of the food they choose to consume (Hughes, 1999). Compared to New Zealand and Australia in particular, the review found evidence of gaps in the current capabilities of the Canadian lamb for producing, marketing and merchandizing lamb. Canadian lamb also appears to lag behind achievements in marketing made by the other major red meats industries sold in Canada. Closing these gaps will require greater coordination in terms of the production and supply of lamb primal and value-added products. It will also require the ability to accurately produce and grade lamb according to known market demands. This leads to increased efficiencies, reduced costs, greater customer and consumer loyalty, and expanding market opportunities.

3.6.2 Market Focus

Compared to the most significant importers of lamb into Canada, New Zealand and Australia, the literature review suggests that the Canadian lamb industry does not focus the same resources on understanding market demands, and develop resources required for the wider industry take advantage of the identified opportunities. Neither does the United States. While market opportunities for Canadian lamb clearly exist, current supply activities appear not to allow the industry to take full advantage the value proposition that market dynamics offer the domestic industry. This is reflected in many of the operational and governance structures currently followed in Canada compared to its major importing competitors. An example of this is the current methods used for grading Canadian lamb, which appear to lag behind those of leading lamb producing nations and do not reflect a number of important determinants that form the drivers of consumer choice in the red meat category.

3.6.3 Production

Canadian lamb production appears not to be as well developed, or as well defined, in terms of how operations along the entire chain can be coordinated in order to create and capture value generating opportunities or reduce costs. An example is that relatively little effort is invested in price discovery practices and influencing the adoption of business models that encourage the exchange of market signals and information between producers, processors and marketers. Out of the four researched nations, New Zealand and Australia are undoubtedly leaders in this area. Economic analysis is used to guide the development of breeding stock suited to consistently producing carcasses offering high yields of quality meat. Similarly, price discovery and value chain analysis methods are used to encourage the adoption of business models that enable the effective exchange of market signals and information between producers, processors and input

suppliers. Development of an efficient, effective, and successful industry is dependent on far more than the lowest cost of production.

3.6.4 Processing

The literature review highlighted a number of factors that appear to limit the ability of Canada's sheep and lamb industry to capture long-term market opportunities due to comparative gaps in processing capabilities compared to both lamb importers and the locally produced major red meats of beef, chicken and pork against which lamb competes against in the Canadian market. This includes the relatively small amount of lamb processed by federally inspected plants and the comparatively low level of technology used to process and grade lamb. The result impedes access to larger markets (such as multiple retailers and foodservice chains) and the ability to supply targeted products to certain markets; such as through accurately controlling portions, which is a requirement for supplying many restaurants and hotels, and accurately graded pre-packaged cuts, which is a requirement of many retailers. Many of these products translate into value-added opportunities that are currently often missed by the Canadian lamb industry.

3.6.5 Industry Coordination

With the exception of initiatives such as Sunterra and Sask Prairie Lamb, the literature found little existence of proactive coordination occurring between producers, processors, marketers and retailers or foodservice operators handling Canadian produced lamb. A number of initiatives, such as Canterbury Meat Packers (New Zealand), Tenderplus (Australia), Mountain States Lamb Cooperative (United States), and Livestock Marketing Ltd (UK) provide ample examples of the benefit of coordinating operations throughout the lamb value chain. This includes the ability to attain superior economic success and capture sustainable competitive advantage. With research showing that proactive business relationships provide far higher levels of commercially significant innovation than the application of scientific technology alone (Tether and Swann, 2003), the economic benefits that could be derived from encouraging greater coordination across the Canadian lamb industry appear infinite: particularly when the level of coordination currently occurring across Canada's lamb industry appears to be far less than its two major competitors, New Zealand and Australia.

3.6.6 Market Research

The literature review identified a general lack of knowledge about drivers of consumer choice, overall consumer behaviour, and demographic factors related to lamb consumption in Canada. Compared to leading importers, Canada and North America have to date undertaken little research to identify ways to increase the consumption and value proposition of domestically produced lamb. The research suggests that the purpose of this project, and the consumer research that it encompasses, is clearly warranted in order to enable the capturing of market opportunities that clearly exist. The undertaking of extensive consumer research appears to be particularly important given lost market opportunities: many of which stem from changes occurring in Canada's population due to immigration, affluence, travel and education.

3.6.7 Promotion

Lamb promotion and marketing activities appear to be most advanced in New Zealand and Australia. Lamb has secured a larger share of the overall red meat market in those countries, even though, much like Canada, beef, chicken and pork also attract considerable consumer loyalty. That domestic lamb consumption is increasing, seemingly without the existence of a concerted promotional effort, would appear to bode well for future opportunities: particularly if current weaknesses surrounding the merchandizing and availability of Canadian lamb can be successfully addressed over the long-term. Given similarities between Canada and other nations' cultural make-up, the domestic industry may well be able to learn from the success of

promotional activities undertaken in other countries, even to the extent of adapting original material to suit the Canadian situation.

3.6.8 Imports

The volume of lamb imports into Canada is on the rise. So is the value of those imports. In line with consumer demands for higher quality products, more pleasurable eating experiences, and seeking of healthier food choices, mutton is being replaced by lamb. Primal cuts are being replaced with value-added cuts, de-boned before leaving the country of production. Without stepping foot outside home soil, the Canadian lamb industry is increasingly operating in an international marketplace. Much of the expansion occurring in the Canadian lamb market, including the high value opportunities, are being captured by international suppliers. If current trends continue, the greatest opportunities that stem from expanding market opportunities could be captured by importers, not the domestic lamb industry.

3.6.9 Strategic alliances

Strategic alliances between companies operating at different levels of the lamb industry, whether located in the country (or even continent) to each other, appear to be increasing. An example of this is the strategic alliance being formed between Rissington Breedlines (NZ) and a group of UK producers to supply the British retailer Marks & Spencer with 12 month supply of consistent high quality lamb from the same genetic base. With the exception of Sunterra, including their association with Sask Prairie Lamb, strategic alliances do not appear to be occurring as frequently in the Canadian lamb industry compared to a number of international suppliers. Strategic alliances, between industry-level institutions and individual businesses, could lead to greater opportunities for the Canadian lamb industry to compete more effectively (in terms of volume and value) against increasingly capable importers.

4.0 Phase 1b: Consumer Research

Section 4.0 is a summary of insights into national consumer behaviour towards and perceptions of domestic and imported lamb purchased in Canadian retail stores and through foodservice outlets. The research was conducted using Ipsos-Reid's I-Say online consumer panel. This allowed detailed information on consumer attitudes towards fresh and value-added lamb to be collected and quantified. Results were demographically segmented by age, income bracket, geographic location, cultural background, age, socio-economic status, products consumed, place of purchase and/or consumption.

A copy of the questionnaire used for the research process forms Appendix A. Detailed insights into consumer behaviour towards and perceptions of Canadian gained through the research process forms Appendix B.

Section 4.1 provides a description of the justification behind the research; Section 4.2 describes the research objectives in detail; Section 4.3 provides an overview of the methodology used to research the Canadian consumer market; Section 4.4 provides an overview of the consumer research results; Section 4.5 provides a summary of what the overall research findings could mean in terms of the Canadian lamb industry successfully increasing the volume and value of the domestic lamb market. Section 4.0 concludes by briefly contrasting results gained from the literature review and consumer research (Section 4.6).

4.1 Research Justification

Justification for the consumer research undertaken is that, with domestic markets for food maturing, growth in volumes of generic food products is limited. Also, given changing market demands, greater opportunities for growth will result from lamb products that are differentiated to meet specific market segments and consumer demands (Hughes, 2006). Located further from consumer markets, lamb producers and processors find it difficult to obtain sufficiently accurate and relevant information to produce products to better meet consumers' wants. By identifying specific marketing segments and opportunities, lamb producers and processors can identify ways to meet these needs, thereby placing themselves in a position where they are able to create higher value propositions and capture increased returns.

4.2 Research Objectives

The objectives lying behind the research were as follows:

- Identify and measure current usage patterns of lamb:
 - *Duration since last consumption*
 - *Frequency of consumption*
 - *Cuts and types used*
 - *Rationale for not using some cuts*
 - *Consumption by members of the household*
 - *Seasonality of use*
- Identify channels of purchase and consumer perceptions of each:
 - *Proportion of total purchases across various channels (grocery stores, discount grocery stores, specialized meat shops, butchers, direct farm sales, restaurants, fast food)*
 - *Reasons for purchasing from primary channel*

- Identify the attitudinal aspects of consumer behaviour in relation to purchasing and consumption patterns across retail and foodservice sectors:
 - *Ranking important factors when determining whether or not to purchase lamb*
 - *Price*
 - *Cuts*
 - *Specials vs. Regular price*
 - *Occasion (Special vs. Everyday)*
 - *Prepared or pre-marinated vs. whole cuts*
 - *Time required for preparation*
 - *Convenience*
 - *Taste*
 - *Quality*
- Determine consumers' attitudes towards the category:
 - *Rate lamb on key factors pertaining to food, health, lifestyle, etc. using a series of agree/disagree statements*
 - *Rate lamb relative to other types of meat (Chicken, Beef, Pork, Fish, Seafood, etc.)*
- Determine the rationale for some consumers not eating lamb:
 - *Whether or not they have ever eaten lamb*
 - *Reasons for not eating lamb*

4.3 Research Methodology

Ipsos-Reid's I-Say Panel was used for the purposes of data collection. With more than 140,000 members, the panel is the largest of its kind in Canada. The panel is continually refreshed with new panelists and is purged of non-responders with contact information being updated on a weekly basis and staging demographic information updated annually. The only omission to the research sample gained through this process is that it does not equally reflect national consumer demographics in terms of recent immigrants. This is solely because they do not generally participate in on-line panels.

An online methodology was used for the research. Experience shows that it is a superior method for detailed gaining consumer insights than through conducting a straight-telephone methodology. An online study will allow respondents to answer questions in greater detail and also allow the respondent more time to consider their responses than if answering questions over a telephone: ultimately providing more considered and accurate responses. The panel also enabled the researchers to accurately target panellists that are more likely to be lamb consumers, and, as such reduce the time and costs involved with surveying this segment compared to the costs associated with an alternative research method.

The survey commenced with Ipsos-Reid emailing an invitation containing a web link and PIN to members of the I-Say panel to participate in a 20 minute survey. Technical assistance was available to all respondents via the Ipsos-Reid helpline (phone or online) if required while completing the survey. An incentive of 5 draws for \$100 was used to assist in recruiting the email participants. The survey was conducted in both French and English.

The survey was targeted at a minimum of 400 consumers who had consumed lamb at least once in the past 12 months. As well, the survey targeted at least 300 non-lamb consumers in order to assess reasons for not consuming lamb. The anticipated results were expected to

provide an understanding of the latter group's perceptions of lamb and why they do not consume it.

The draft questionnaire used for the research was developed by Ipsos Reid. It was then assessed by Martin Gooch and Terri-Lyn Moore from the George Morris Centre and Jennifer Fleming (Executive Director, Canadian Sheep Federation). A second draft of the survey questionnaire, containing a number of relatively minor revisions, was then forwarded to the Canadian Sheep Federation's Board of Directors to suggest any further changes before providing final approval. The final survey questionnaire, containing a total of 23 questions and which forms Appendix A, was then developed into a format suitable for completing on line and able to automatically feed results into a central database.

During the last week of April the survey questionnaire was posted on line; at which time invitations were emailed to the targeted I-Say Panel members. In an effort to capture the number of respondents needed to ensure the accuracy of results, the survey questionnaire remained on line for two weeks. All completed Responses were received between April 26 and May 1, 2006.

4.4 Research Results

All the completed responses were received between April 26 and May 1, 2006. The average response took 18 minutes to complete. The initial target of collecting responses from 400 lamb consumers and 300 non-lamb consumers was greatly exceeded: the final number totaling 981 and 2472 respectively. Out of the total number of responses (3,453), approximately 40 percent of respondents had consumed lamb at least once in the previous twelve months.

The following summary highlights the main points from the research in order to assist digestion of the results. The summary is not meant to replicate detailed results contained in Appendix B.

4.4.1 Consumption Patterns

- 40 percent of respondents considered themselves regular consumers of lamb.
 - Of those, only 28 percent said that they considered lamb to be an important part of their overall diet compared to chicken, beef, or pork.
- For 75 percent of lamb consumers, lamb is not a core component of their diet.
 - Consuming it a maximum of six times per year.
- 40 percent of households contain at least one person that does not eat lamb.
 - This reduces the availability of lamb consumers and regularity of consumption as it requires preparation of alternative food for those family members.
- Lamb is not considered a seasonal product, nor does consumption follow a particularly seasonal pattern.
 - While 30 percent more lamb is consumed in spring than the average for other months (presumably due to the Easter tradition of consuming lamb), consumption is reasonably stable during the full year.
- 75 percent of lamb is eaten only at weekends or for special occasions.
 - Only 25 percent of lamb is eaten as a standard meal during the week.

4.4.2 Purchasing Channels

- Retail is by far the most important supply channel for lamb, both in terms of volume and regularity of purchase.
 - 90 percent of consumers consume lamb at home at least once during the year.
 - 63 percent of sales occurring through grocery stores (i.e. Loblaws).
 - 42 percent of consumers consume lamb at least once a year in a restaurant.
 - 33 percent of those experiences occur in fine dining establishments.
- 38 percent of purchases are made through grocery retailer because it is convenient to purchase, is considered part of the overall shopping trip, and due to lower prices.
 - A very large majority of lamb purchases do not occur from a special shopping trip.
 - For many lamb customers, the convenience of availability is a greater driver of choice than the product itself.
- 67 percent of lamb purchasers say that they buy through grocers because low price is the biggest driver influencing their decision to purchase lamb.
 - 50 percent of consumers say however that quality is the (or one of the) biggest drivers influencing their decision to purchase lamb.
- 13 percent of consumers purchase lamb through specialty butchers.
 - Better selection and choice is the biggest driver for purchasing through butchers.
 - Price is factor for 8 percent of consumers' decision to purchase through butchers.
- 11 percent of consumers purchase most or all of their lamb at fine dining restaurants.
 - 53 percent of respondents said this is because of the better preparation
 - Reasonable segment of lamb consumers (~29 percent) choose lamb at a fine dining restaurant because it is a special occasion or treat.
 - Points to a gap between consumers' enjoyment of lamb and home consumption
 - Discouraged from consuming lamb at home due to lack of confidence in their ability to cook and prepare a tasty high quality lamb meal.
- Premium lamb cuts (i.e. chops, legs, ribs) are most popular for home consumption.
 - Majority of value-added products (i.e. gyros or kebabs) eaten in restaurants.
 - Far less eaten at home than through foodservice.
 - Points to retail opportunity for kebabs, gyros, and other value-added products.
- Education and awareness will be a significant factor in driving an increase in lamb sales.
 - Lack of awareness about home preparation.
 - Seen as specialty meat, not a convenient 'anytime' meal item.
- 80 percent of lamb purchased through retail.
 - Effective supply and merchandizing operations critical to success.
 - Effective partnerships required to promote and drive lamb sales.
- 20 percent of lamb purchase through restaurants and foodservice
 - 43 percent of consumers that eat lamb in restaurants come from families where less than half the household consume lamb.
 - Restaurant only chance to consume lamb.
 - Seeing lamb as a special occasion meal is a consumption driver

4.4.3 Consumer Segments

- 50 percent of lamb consumers eat lamb at any time.
 - 29 percent of lamb consumers eat lamb at weekends.
 - 22 percent of lamb consumers only eat lamb on special occasions.
- 78 percent of lamb consumers purchase the majority of lamb from retail stores and consume at home.
 - 8 percent buy at retail for home consumption and at restaurants.
 - 14 percent buy primarily at restaurants.
 - Perhaps due to non-lamb eaters in household discouraging lamb consumption.
 - Perhaps due to a lack of knowledge regarding home preparation.
- Anytime lamb eaters consume significantly more lamb than either weekend or only special occasion consumers.
 - Promoting lamb as an 'anytime' meal can likely increase consumption the most.
 - Home consumption drives overall sales volumes and regularity.
 - 'Anytime eaters' come from households where all members eat lamb.
- Influence of age on consumption
 - Consumers aged 35+ are highest consumers of lamb.
 - Will eat more lamb at home and restaurant than 34 years and under.
 - Consumers aged 55+ more likely to eat lamb anytime.
 - May be influenced by factors surrounding historical consumption of lamb.
 - Perhaps influenced by having more time and knowledge of preparation.
- Influence of household income on consumption
 - Under 25k per year income households consume least amount of lamb.
 - Similar level of home and foodservice consumption.
 - 25k-60k per year income households consume greatest amount of lamb.
 - Higher percent of lamb consumed at home
 - 60k+ per year income households eat moderately less lamb than 25-60K range
 - Of the lamb eaten, the slight majority is only eaten in restaurants

4.4.4 Consumer Satisfaction

- Majority of consumers are satisfied with lamb purchased
 - 65 percent of consumers are completely satisfied with quality of lamb purchased
 - 32 percent of consumers are mostly satisfied with quality of lamb purchased
 - 50 percent of voiced dissatisfaction comes from the fattiness of lamb purchased and its inconsistency in terms of fat content / leanness
- Drivers of choice for all meat not just lamb
 - 87 percent of consumers say that taste is the most important factor when choosing meat
 - 80 percent of consumers say that consistently high quality is an important factor when choosing meat
 - 68 percent of consumers say that value for money (not low cost) is an important factor when choosing meat
 - 61 percent of consumers say that it being a healthy option is an important factor when choosing meat

- 59 percent of consumers say that the whole family eats it is an important factor when choosing meat
- 59 percent of consumers say that ease of preparing in a variety of ways is an important factor when choosing meat
- Consumers' perception of lamb is equal to, or better than, beef, pork and chicken when rated on the top two factors stated above. These are:
 - Tastes great:
 - Rating supported by approximately 80 percent of lamb consumers
 - Consistently high quality:
 - Rating supported by approximately 70 percent of lamb consumers
- While overall consumer satisfaction with lamb is generally very high, in relation to beef, pork and chicken (CBP), it lags behind when rated on the most of other factors stated above, particularly:
 - Good value for money:
 - Less than 50 percent of consumers, versus 60-70 percent for CBP
 - Convenience and ease of preparation for weekdays:
 - 40 percent of consumers, versus 60-75 percent for CBP
 - Whole family will eat it:
 - 50 percent of consumers, versus 75-80 percent for CBP
- In terms of lamb being a healthy option, it compares favourably with beef and pork (~60 percent) though lower compared to chicken (60 versus 80 percent respectively).
- Critical gaps in comparison to other meats therefore include:
 - Lamb is not seen as good value money
 - Whole family often won't eat lamb
 - Lamb cannot be prepared easily
 - Lamb is not convenient for preparing as a midweek meal
- Overall, consumers who eat lamb primarily at home have a more positive impression of lamb than those only eating lamb in restaurants.
 - Education and awareness of the versatility of lamb as an 'at home anytime' meal solution is therefore critical to successfully driving increased sales.

4.4.5 Drivers of Non-Consumption

- 72 percent of all non-lamb consumers have eaten lamb at some point in their life
 - 43 percent of non-lamb eaters have not eaten lamb for 4+ years
- Taste is the biggest factor discouraging consumption (35 percent)
 - Followed by price (14 percent)
- Negative perception towards lamb appears to be the biggest single factor discouraging consumption. Possible ways to address this include:
 - Address price through value-adding or creation of greater supply efficiencies
 - Including carcass balance, genetics, production/processing factors
 - Raise awareness of convenience factors through education and promotion
 - Promotion of lamb as a lean healthy alternative

4.4.6 Brand Awareness

- Consumers' level of brand awareness of lamb is relatively low
 - 75 percent of consumers are unable to identify the source of much of the lamb they consume
- Many consumers (63 percent) consider Canadian lamb equal in quality to New Zealand lamb.
 - Fewer consumers consider the quality of Australian lamb to be equal to Canadian or New Zealand lamb (32 percent).
 - This is largely due to large of brand awareness for Australian lamb, not because they perceive Australian lamb to actually be poorer in quality.
- Consumers' comparison of Canadian lamb versus both New Zealand and Australian lamb rates Canadian lamb higher on a number of critical factors, including:
 - Freshness
 - Taste
 - Tenderness
 - Consistency of quality
 - Colour
 - Cut size
 - Value for money and price
 - Even though Canadian lamb often costs more than imported lamb
- Consumers' comparison of Canadian lamb versus both New Zealand lamb rates Canadian lamb lower on two critical factors, these are:
 - Reputation
 - New Zealand has brand equity
 - Availability
 - Merchandizing and supply issues
- While consumers rate Canadian lamb comparatively higher than Australian lamb, this is more because of lack of knowledge and awareness, not because of poor quality.
 - Australian lamb will become a source of greater competitiveness.

4.5 Summary

The consumer research resulted in a number of crucial findings. They include that lamb is not considered by the vast majority of consumers (*including those regularly consuming lamb*) to be an 'everyday' red meat; that the majority of lamb consumers only eat lamb an average of five to six times per year and often only on special occasions; that 80 percent of lamb is purchased through retail outlets (*predominantly grocery retailers*); that many consumers (*including regular consumers of lamb*) feel ill-equipped to prepare it successfully with ease at home; that perceptions rather than realities drive the majority of consumer behaviour towards lamb; that, while slightly more lamb is consumed during the spring, lamb is not considered a seasonal product by the majority of consumers; that a lack of value-added products leads to missed market opportunities; that brand awareness is relatively low in the lamb category; and that the largest consumers of lamb are over 35 years of age and middle income earners.

Of particular note is the high regard and value that consumers feel towards Canadian lamb, even though it often retails for a higher price than lamb imported from New Zealand and Australia. This implies that if the Canadian lamb industry is able to successfully address issues

surrounding the merchandizing and availability of domestically-produced lamb, as well as shortfalls in consumer satisfaction towards lamb, significant opportunities exist to improve the overall size and value of the overall Canadian lamb market. The lamb market is not in danger of demise; in fact consumer research points to lamb having a healthy future. Furthermore, the Canadian lamb industry undoubtedly has an opportunity to build upon the extraordinarily level of satisfaction that virtually all lamb consumers have for domestically-produced lamb compared to other foodstuffs. Significant opportunities also exist to encourage consumption amongst traditional non-lamb eaters.

Beyond improving the merchandizing and availability of lamb, the research suggests that profitably growing the market for domestic lamb will also depend upon encouraging increased consumption of lesser known cuts. This could be achieved through communicating recipe options that can assist in repositioning lamb as a versatile, value for money, everyday, healthy alternative to chicken; or value-adding and offering processed lamb products. Consumer insights suggest that this approach, conducted as part of a unified branding strategy, could well lead to a significant expansion in commercial opportunities for the Canadian lamb industry and increase consumption levels across segments of the market which currently consumes comparatively less lamb. Segments that should be of particular interest to the Canadian lamb industry if seeking to expand consumption across the wider population should include consumers aged 35 years and under, the more affluent, and households where one or more members do not currently consume lamb.

5.0 Conclusion of Phase 1

Phase 1 concludes with a brief description of major findings from the literature review and consumer research. Particularly where they appear to match in terms of market opportunities and performance gaps compared to leading competitors. Reference was given to these factors when developing the survey questionnaire used during the Consultative Process. The ultimate objective is to combine information gained to date with further insight into operations currently performed with the Canadian lamb industry in order to develop a series of recommendations for how the Canadian lamb industry can achieve long-term competitive advantage through developing the technical and business capabilities required to meet identified market opportunities; along with supporting factors that could hasten achievement of such efforts.

The conclusion is framed around three areas: Market Opportunities, Production and Promotion.

5.1 Market Opportunities

In line with consumer interest in healthy differentiated products and an increasingly segmented lamb market, demand appears to be developing fastest in the premium end of the market. The same change is occurring in other areas of the agri-food market; bread for example. The changes stem from the influence that more discerning and educated consumers appear to be having upon the lamb industry. The literature review illustrated the benefit that New Zealand suppliers have achieved through encouraging greater collaboration throughout individual chains supplying specific markets. New Zealand's sheep industry in particular appears to have been successful at developing processes and procedures that have enabled it to improve the supply, marketing and merchandizing of higher value items in line with identified market opportunities. Similar initiatives have also proven successful in Australia, the United Kingdom (Food Chain Centre, 2004) and, to some extent, the United States.

The research findings suggest that much of the Canadian lamb industry currently follows practices that limit its ability to take full advantage of market developments and opportunities, particularly compared to international competitors such as New Zealand. If the expected increase in competition from the Australian lamb industry materializes, the future competitiveness of Canada's lamb industry may rely more than ever on developing the ability to produce and supply consistently high quality lamb graded according to tightly controlled specifications that reflect specific changing market demands. More than ever, one size will not fit all markets. Succeeding from this change in a profitable and sustainable manner will require much of the Canadian lamb industry to adopt more sophisticated production, processing and marketing techniques than is currently the case.

5.2 Production

The research suggests that what consumers see as limited availability, unappealing merchandizing and the resulting dissatisfaction with Canadian lamb, and which often leads to them purchasing imported alternatives, is mostly caused by a lack of coordination and market focus along the supply chain. Moreover, initial evidence points to a lack of awareness at the industry and commercial level that improved coordination is necessary to take advantage of market opportunities. This result in an infrastructure that is underdeveloped compared to the capabilities and supporting arrangements adopted and developed by competing nations. The literature review suggested that the main causes of these problems include that the majority of Canadian lamb is processed through provincially inspected facilities (limiting suppliers' access to the main sales channel for lamb – grocery stores); as well a reluctance to adopt production

methods suited to efficiently producing consistently high quality meat, particularly in comparison to the level of quality and consistency attained by major international competitors.

The sheep industries of New Zealand and Australia continue to invest significant resources in improving the effectiveness and efficiency of their lamb production, processing, transportation, and marketing activities. That this process results in the ability of individual chains to produce products suited to specific target markets stems from the extensive market research undertaken by organizations such as Meat & Wool New Zealand (MWNZ) and Meat and Livestock Australia (MLA). Consumer information is then shared with stakeholders operating at all levels of the industry in order to guide the development of well coordinated and innovative practices that enable individual supply chains to improve their competitiveness. This process is aided by MWNZ and MLA representing the interests of the sheep and beef industries, in-turn allowing for greater investment to be made in innovative practices that improve meat quality and consistency. It also provides an opportunity for ideas and lessons learnt to be cross-pollinating between industries; in both cases this is lamb and beef in particular.

The effectiveness of MWNZ and MLA is further enabled by their role, as well as that of other industry initiatives, in encouraging the development of market-focused strategic alliances that are able to share and act upon market information ahead of international competitors. MWNZ and MLA work directly with both retailers and foodservice operators, providing expert support to assist in the development of innovative marketing initiatives and merchandizing arrangements. Insights gained from interaction with retailers and foodservice operators are then shared with processors and producers, and visa versa. The resulting level of understanding, facilitated by experts who are aware of terms and concepts required to communicate effectively with the different links in the chain, trickles down to a state of more harmonious relationships and appreciation of the overall industry at each stage of a commercial chain operating within the wider industry. It may also lead to more commercially minded innovation than might otherwise occur.

5.3 Promotion

For consumers, perception is reality. Findings from both the literature review and consumer research suggest that Canadian consumers' negative perceptions of lamb, including lamb's perceived fattiness and comparative difficulty of preparation will prevent it from becoming considered as an 'anytime meal solution' by a large percentage of the population. This severely limits the market opportunities for Canadian produced lamb. Lamb is not promoted, marketed or graded in a similar fashion to other red meats. Neither are consumers sufficiently educated of its ease of preparation and recipe options. Partly for these reasons Canadian lamb appears unable to compete for market share on a similar footing against other domestically-produced red meats: particularly beef, pork and chicken.

Even for many consumers that consider themselves regular lamb eaters, lamb remains an occasional meal that they perceive is best suited to special occasions and out-of-home consumption. Countering this perception will require long-term concerted promotional efforts that encompass both industry-level generic promotions and targeted marketing by individual businesses. Lack of brand awareness likely also leads to lost market opportunities for Canadian lamb. New Zealand and Australia have developed highly effective promotion initiatives which the Canadian industry may be able to emulate in order to develop a sizeable domestic market for lamb. The literature review highlighted successes achieved by marketing lamb and mutton through both generic and in-store promotions.

6.0 Phase 3: Consultative Process

Section 6.0 of the study contains an overview of the consultative process that the George Morris Centre undertook to evaluate, at a reasonably high level, factors affecting the production and marketing of Canadian lamb. While unmet market opportunities for Canadian lamb clearly appeared to exist amongst consumers, confirming the extent to which it occurred in reality and whether suppliers were aware of its existence required insights that could only be acquired through consultation with organizations involved in supplying domestically produced lamb to the Canadian market.

Section 6.1 describes survey methods employed; Section 6.2 summarizes the results of interviews with retailer, foodservice and processors levels of the Canadian lamb industry; Section 6.3 summarizes interviews with lamb producers. Section 6.4 then summarizes challenges and opportunities extrapolated from the overall research results before Section 6.5 summarizes the overall Consultative Interview results.

First understanding, then having the ability to meet stakeholder and consumer needs, is paramount to profitably capturing and retaining market opportunities over the long term (Hughes, 2004; 2006). The objective of the consultation process was therefore to identify factors that resulted in these missed opportunities; assess industry's knowledge of consumer behaviour and beliefs regarding the quality and consumption of domestically produced lamb compared to New Zealand and Australia imports; identify how closely Canadian lamb production meets the needs of stakeholder customers involved in supplying lamb to consumers; and attempt to identify what this meant for the Canadian lamb industry as a whole. It was also anticipated that research results would enable the researchers to assess the overall effectiveness of practices of Canada's lamb industry in comparison to its international competitors (particularly Australia and New Zealand) in order to verify the accuracy of results gained through the literature review. To help develop a clear picture of overall industry capabilities and identify challenges along the entire chain, consultations were also undertaken with lamb producers located across Canada.

The consultative process was approached as a necessary step to developing an objective assessment of the effectiveness of the current structure and nature of the Canadian lamb industry. The process would provide the opportunity to assess the relative value of current resources and capabilities for taking advantage of market opportunities. It will also allow identification to be made of capability gaps that need to be filled in order to enable added economic value to be gained from identified market opportunities; as well as insights into methods that customers of Canadian lamb suggest current gaps can be addressed. For the purpose of the research, customers include primary and secondary processors, distributors, retailers, and foodservice operators. Provincial sheep associations and contacts advised the researchers on which producers should be approached in order to gain an informed perspective of issues and dynamics from the primary production end of the Canadian lamb industry.

6.1 Survey methods

The survey method used for this project was a questionnaire that enabled data to be gathered from chosen respondents through the means of a semi-structured interview format. Given the extent of industry issues that the research needed to cover in order to acquire a detailed perspective of challenges and opportunities facing the Canadian sheep industry, the chosen methodology involved using two similar though distinct survey questionnaires. A letter of introduction preceded the questions. Tailored to suit the two stakeholder groups, the letter explained the purpose of the research activity and the type of information sought. To encourage

open and frank discussion, the letter also highlighted the confidentiality of the process. The overall target was to complete 45-50 interviews.

This decision was largely taken because it was felt that the production and processing / marketing levels of the Canadian lamb industry might have differing views of factors affecting market opportunities for domestically produced lamb. Similarly, it was felt that the production and processing / marketing levels of the Canadian lamb industry might have different views of the challenges that must be overcome to enhance the effectiveness and efficiency of current operations in relation to market demands; including how the results of current domestic practices compare to New Zealand and Australian lamb imported into Canada.

With this in mind, the questionnaires were developed with two stated aims. The first was to provide a reasonably in-depth analysis of chosen respondents' perspective on market opportunities for Canadian lamb and the effectiveness of current practices for taking advantage of those opportunities. With representative consumers already surveyed, the second aim was to provide an opportunity to compare reactions and perspectives from the two remaining areas of the industry that, historically, have tended to differ in their views surrounding causes and affects the most: processors and marketers versus producers. The overall results were also expected to provide an insight into major challenges that industry stakeholders believe to be associated with capturing any identified opportunities.

The questionnaires were developed from information resulting from the literature review and consumer survey. It was felt that this approach would assist in gauging the accuracy of information collected throughout the initial research phase of the project. It was also expected to provide insights into stakeholders' views surrounding the strengths, weaknesses, opportunities and threats affecting the future international competitiveness of Canada's lamb industry. An understanding of the needs and challenges of stakeholders, as well as the nature of relationships that existed between players operating at each level of the industry, was expected to be critical to positioning the final recommendations in a way that could encourage stakeholder buy-in, thereby maximizing the project's long-term value to the Canadian lamb industry. As were insights into how respondents viewed the current and future value, demand, challenges and opportunities for lamb compared to other red meats.

To ensure that a detailed synopsis could be developed of industry practices in relation to how closely they reflected end market demands, which is ultimately effects competitiveness – particular for businesses suited away from the end market, the consultation process was constructed along lines reflecting the value chain analysis technique. That is working up the chain, beginning with stakeholders operating closest to consumers and situated in the higher volume channels. To enhance the relevance of the findings to the wider industry, the research did not encompass direct marketing. In an effort to gain a detailed understanding of market drivers affecting each of the major levels of the overall lamb supply/value chain, research efforts than moved to primary and secondary processors; then finally producers.

The respondents were chosen through consultations with industry associations, including the Canadian Sheep Federation and provincial sheep agencies, acknowledged experts that together traversed the entire lamb industry, publicly available listings of primary and secondary processors, as well as recommendations from previous industry peers. From these sources, a list of suggested respondents was drawn up. In an effort to maximize the eventual value of the resulting information to industry through ensuring the validity and national perspective of the research, potential respondents were then prioritized according to specific size of the operations and geographic location.

6.1.1 Processing and Forward

The final list of potential processor, distributor, foodservice and retail respondents totaled 62 individuals and corporations. From experience of previous surveys of this type, a buffer of almost 50 percent was deemed sufficient to ensure that the minimum target number of 32 responses could be attained. The questionnaire was developed using the methodology described above and, in the majority of cases, emailed or faxed to respondents at least one day ahead of the interview. All but two interviews were conducted by telephone. The two exceptions saw the questionnaire completed by the respondent, which they then faxed to the George Morris Centre. All respondents were informed of the objectives underlying the consultation process, the confidentiality of their responses, and the method by which the research results would be processed and analyzed prior to sharing with industry. A copy of the survey questionnaire used for the interviews with primary and secondary processors, food service operators and distributors, and retailers, is contained in Appendix C.

Although the majority of telephone interviews lasted between 20 and 40 minutes, a small number lasted over one hour. This gave the interviewees time to reflect on their answers as they worked through the questionnaire. This process also provided an opportunity for them to relate a specific answer to another part of the questionnaire; usually as a way of underlining the importance of an issue or a point they had raised regarding the issue in question. The interviewer took great care not to solicit a particular response or voice their own opinion during any part of the research. With general commentary or feedback by the interviewer kept strictly to the very end of interview session, all responses are therefore the interviewees' personal thoughts and opinions. At the end of each interview respondents were encouraged to follow up with additional responses at any time if they desired.

The type of information sought during the consultation process included:

- Location, production capacity, major suppliers, major customers, inspection status;
- Total and comparative percentage of lamb compared to other meats purchased or sold;
- Marketing opportunities facing the Canadian lamb industry: now and anticipated;
- Perceptions of the current condition, including weaknesses and strengths, of the Canadian lamb industry;
- Challenges that the industry will likely have to address to increase market share;
- How pricing, quality, consistency of supply, packaging, and distribution impact competitiveness compared to lamb importers – particularly New Zealand and Australia;
- Differences between how the Canadian meets the needs/demands of retailers and foodservice operators compared to lamb importers – particularly New Zealand and Australia;
- Perceived drivers of customer and consumer demands, and expected future trends;
- Product, promotional, merchandising, or other marketing initiatives not currently available from domestic suppliers, though desired by customer / consumer market(s);
- Hindrances and barriers to sourcing or marketing higher volumes of Canadian lamb;
- Value-added opportunities not met by present supply and/or marketing arrangements;
- Extent of the information shared by customers / suppliers about their intended strategies, operational challenges, and market opportunities;
- Commercial drivers of sourcing from Canadian versus international suppliers.

A summary of final respondents, including geographic location, are listed below. A detailed assessment of the research results are featured in Section 6.2. A concise bullet-point style description of responses is contained in Appendix D.

6.1.2 Producers

The final list of potential producer respondents totaled 35. They ranged from small operations producing 50 lambs or less per year, to large operations producing in excess of 10,000 or more lambs annually. Operations polled included weaned lamb, finished lamb, breeder, and feedlots, or a combination of two or more. From experience of previous surveys of this type and, given that the majority of potential respondents were approached by provincial associations prior to their names being forwarded to GMC, a buffer of almost 30 percent was deemed sufficient to ensure that a minimum target number of 20 responses could be attained.

The draft questionnaire was developed using the methodology described in Section 6.1. It was then revised to increase its relevance to factors surrounding, and impacting, Canadian lamb production. This was accomplished by using outcomes of the processor / retailer / foodservice consultations to ensure that the consultations would provide insights into producers' perspectives surrounding challenges associated with issues raised by stakeholders operating at levels of the industry; and, most importantly, situated between producers and the main lamb markets. It was anticipated that the consultations would also provide an opportunity to assess the relative effectiveness of current domestic operations compared to those of leading international suppliers, as well as the type of relationships that existed between producers and the wider industry; and whether specific relationships typified certain supply arrangements.

In the majority of cases the questionnaire was emailed or faxed to respondents at least one day ahead of the interview. All but one interview was conducted by telephone. The exception saw the questionnaire completed by the respondent, then faxed to the George Morris Centre. All respondents were informed of the objectives underlying the consultation process, the confidentiality of their responses, and the method by which the research results would be processed and analyzed prior to sharing with industry. A copy of the survey questionnaire utilized for the interviews with producers is contained in Appendix E.

Though the majority of telephone interviews lasted between 20 and 40 minutes, a number lasted almost one and a half hours. This gave the interviewees time to reflect on their answers as they worked through the questionnaire. This process also provided an opportunity for them to relate a specific answer to another part of the questionnaire; usually as a way of underlining the importance of an issue or a point they had raised regarding the issue in question – and how that related to their specific operations. The interviewer took great care not to solicit a particular response or voice their own opinion during any part of the research. With general commentary or feedback by the interviewer kept strictly to the very end of interview session, all responses are therefore the interviewees' personal thoughts and opinions.

At the end of each phone interview respondents were thanked for their time and invited to submit further comments by email or phone should they wish. As none of the respondents took advantage of this opportunity, it is fair to say that the interview process gave each respondent adequate opportunity to voice their opinions.

The type of information sought during the consultation process included:

- Type of operation, location, production capacity, supply and marketing channels;
- Business methods used to manage purchase / marketing risks;
- Extent of the information shared by customers about their intended strategies, operational challenges, and market opportunities;
- Extent and value of information shared by customers about the end market, and how their lambs perform to demands set by customers and the end market;

- Information that producers are currently unable to access, though would like to acquire in an effort to improve the management of their operations;
- Perceptions of the current condition, including weaknesses and strengths, of the Canadian lamb industry – including in comparison to New Zealand and Australian lamb suppliers;
- Pricing, quality, grading and settlement arrangements used by markets supplied;
- Comparison of the perceived effectiveness of pricing, quality (inc. promotion), and supply models used by Canadian versus New Zealand and Australia lamb industry / suppliers;
- Level of awareness surrounding Canadian lamb and mutton grading standards, and their effectiveness in directing carcasses to suitable markets;
- Significant marketing opportunities for Canadian lamb: now and anticipated;
- Hindrances or barriers to increasing the volume and/or quality of Canadian lamb compared to largest international competitors, and how to address such for competitive advantage;
- The perceived effectiveness of activities performed in the Canadian lamb industry compared to those adopted by the other major red meats (beef, pork, chicken).

A summary of final respondents, including geographic location, are listed below. A detailed assessment of the research results features in Section 6.3. A concise bullet-point style description of responses is contained in Appendix F.

6.1.3 List of Respondents

To help ensure that the information gained from the research process was accurate, open and valuable for assessing the current state of the domestic lamb industry (particularly in terms of strengths, weaknesses, opportunities and threats facing each major level of industry as well as overall) all of the respondents were assured that their exact names and individual responses would remain confidential. A brief description of the respondents, arranged by operation type and location, is provided below.

	Retail	Food Service	Primary Processor	Secondary Processor	Total
Eastern	-	1	1	-	2
Quebec	1	-	-	3	4
Ontario	4	6	4	1	15
Prairie	1	2	3	1	7
British Columbia	2	-	2	-	4
Total	8	9	10	5	32

	Feedlot	Lamb Finishing	Breeding Stock	Combination**	Total
Eastern	-	3	-	-	3
Quebec	-	2	-	3	5
Ontario	1	3	2	1	7
Prairie	3	-	-	4	7
British Columbia	-	-	-	4	4
Total	4	8	2	12	26

*A number of producers categorized themselves as more than one of the available choices

6.2 Summary of Interview Results at the Processing and Retail Level

This section looks at the results from the first set of interviews that were performed with stakeholders at the processing, retailer and foodservice level. In total, there were 32 respondents from across the country. Of the 32 respondents, 31% were primary processors, 25% were retail, 28% were foodservice, and 16% were secondary processors.

Geographically, the respondents were spread out across Canada. The greatest representation was from Ontario (47%), followed by the Prairies (22%), Quebec and BC (12.5% each) and the East Coast (6%). Ontario features the highest percentile of respondents; partly because that is where a number of multi-provincial and national businesses are headquartered. The results provide a good representation across the provinces and the sector. It should also be noted that Ontario has the highest share of farm cash receipts from sheep and lamb sales and is the largest market for Canadian lamb.

6.2.1 Respondent Background

There were 12 respondents who classified themselves as part of the retail sector. These 12 respondents were located across the country – from Quebec to British Columbia – and present a diversified representation of Ontario retailers. The respondents from the retail sector serve consumers ranging from those seeking high end quality products through to budget-priced 'boxed' items. The businesses represent large national grocery chains and smaller regional grocers. They all regularly handle Canadian lamb. The majority also handle imported lamb.

The respondents in the foodservice sector, 9 in total, were also diversified and represented businesses from Eastern Canada, Ontario and the Prairies. The foodservice results represent many areas of food service: from chefs through to catering, and food distribution through to education establishments that also operate commercial outlets. The foodservice respondents supply or operate all areas of the foodservice sector: hotels, restaurants, residential, corporate, and chef training facilities.

Processors, both secondary and primary, represent the largest number of total respondents. In total, there were 10 primary processors from across the country and 5 secondary processors. Four of 10 primary processors had the capacity to, or were producing, more than 500 head of lamb per week. Six of the ten respondents were smaller sized enterprises, and were producing less than 500 head of lamb a week. Customers for the primary processors were also varied: including butcher shops, grocery stores, custom kills, and Halal consumers.

6.2.2 Lamb Market

This section looks at where the respondents sourced their lamb, in what form the lamb was sourced and what percentage of sales their sales come from lamb and lamb products. As well, it highlights lamb supply and demand sourcing issues.

Respondents in the retail sector source their lamb locally (Canadian) and from New Zealand. Overall, only 25% of respondents' source solely from Canada, while 37.5% sourced at least 95% their lamb from New Zealand, and 37.5% of respondents sourced their lamb from both Canada and New Zealand. While it is difficult to make inferences regarding the exact form of lamb that retailers were purchasing because this question was generally not fully answered, most retailers specified that they were buying the product in the fresh, frozen or chilled state.

However, two respondents did indicate that they buy lamb products in the half or full-carcass and the primal form (both box and tray packed).

While most retailers were reluctant to state categorically the extent to which that generally experience shortages in lamb supply, from the processor responses cited later on it is obvious that many do experience shortages or have access to less Canadian lamb than they would wish. Only one respondent answered the question precisely. This respondent indicated that they had been in business for almost 20 years and had never experienced supply shortages. As a result they have remained loyal to their suppliers.

Foodservice respondents sourced their lamb supplies from Canada, New Zealand, Australia and the U.S. In particular, the following bullet points outline where food service respondents sourced their lamb:

- 22% indicated that at least 90% of lamb was Canadian; though also purchased small quantities of U.S., New Zealand or Australian lamb.
- 33% indicated at least 90% of lamb was from New Zealand; though also purchased small quantities of U.S, Australian or Canadian lamb.
- 22% used a mixture of Canadian and New Zealand lamb; only purchasing Canadian lamb for special functions of mainly small groups and because of taste attributes.
- 22% used a mixture of Canadian, New Zealand, Australian or U.S. lamb.

Respondents were also asked in what form they purchased the lamb. Most survey respondents purchased lamb in many different forms, and no specific pattern of lamb cut purchases emerges from this question. However, it was indicated that lamb was predominantly purchased in the following forms:

- Legs
- Shanks
- Rack
- Loin and Striploin
- Further processed
- Value-added
- Primal – boxed

While time did not allow the researchers to precisely ascertain the exact value and volume of overall lamb purchases each of these cuts represent, three respondents indicated that lamb racks represented over 60% of the total value and volume of lamb purchases. Legs and loins comprised the remaining value and volume.

Two food service respondents answered that they have not changed their geographic supply source for lamb. Although lamb was available from other sources, they were satisfied with the current quality and consistency of lamb that they were receiving. Both of these respondents were using Canadian suppliers to some degree. It is also interesting to note, that only one respondent (of three who answered the question) have experienced shortages in NZ lamb, mainly due to seasonal issues and weather issues such as drought in New Zealand.

Primary processors generally sourced their lamb supply from local sources, and in all cases but one, the lamb supply was Canadian. One respondent indicated that it was necessary to source from the United States in 2006 because of shortages in the Canadian supply. As well, there is a mixture of lamb purchases from stockyards/auctions, local producers directly and on-farm sources. The form of lamb purchased in all cases was live. Thus, the value and volume of purchases is 100% from live animals.

Three respondents indicated that they have changed their geographical source of supply over the last five years. Interestingly enough, one respondent has started sourcing out of province because there was not enough in-province supply (in Eastern Canada), while another processor (from Ontario) has stopped sourcing out of the province and now sources almost 100% from Ontario producers. This processor stated that the capacity of Ontario has grown, and that the consistency of quality has improved: particularly since they had began taking greater care from which producers they sourced their lamb.

Overall lamb sales as a percent of total red meat sales (in value and volume) varies greatly among primary processors. It ranges from as low as seven percent to as high as 100 percent. The two most common percentile ranges of lamb sales range in terms of volume and value of total red meat sales range between 7 and 20 percent or 50-100% of total red meat sales. At least three processors had considered opening a dedicated lamb facility though had decided against it because of lack of guaranteed supply.

Seventy percent of primary processors surveyed indicated that they had experienced shortage supplies at least once a year. The majority indicated that they had difficulties sourcing lamb in spring, while others indicated that they had difficulty sourcing lamb either once a year due to border closings or during major holidays such as Christmas and Easter. The remaining respondents (30%) indicated that they rarely, if never, had a problem sourcing lamb. These respondents generally sourced lamb locally and had close relationships with producers; or solely processed their own lamb – with occasional custom kills.

Primary processors sold their (processed) lamb in a variety of forms: half or full carcass, primal boxed, primal tray packed, value added, semi-prepared, partially cooked, fully cooked and cut and wrapped. While the responses were quite varied, and many processors indicated that they sold their (processed) lamb in more than one form, there were two forms of lamb that stood out among the responses: half or full carcass and fully packed. Sixty percent of the processors sold their products in at least one of these two forms.

While three primary processors indicated that they never have a problem supplying the demand for lamb and lamb products, five primary processors responded that they have experienced problems in meeting demand. Often regularly and, in two cases, to the extreme compared to potential supply contracts. Reasons for these shortages included lack of dependable supply – including producers breaking supply agreements, that lamb was too expensive, or that supply is simply not large enough to meet demand (predominantly during the Muslim feast and Easter and Christmas).

Two processors mentioned that they had either had to decline or curtail supplying medium to large retailers because of supply shortages. One cited that they could not supply a major retailer who wished to commence a Canada 'brand' for lamb.

6.2.3 International Comparison

Survey participants were asked to compare the differences between Canadian and Australian and New Zealand lamb on a variety of attributes, including: supply, quality, price, merchandising support and overall trading relationships. They were also asked to identify if any of these attributes had changed over the last five years. This section summarizes the responses from all participants surveyed, with the exception of producers.

Not surprisingly, over 50 percent of the respondents indicated that there were problems with the supply of lamb in Canada, particularly when compared to New Zealand. The main problem that was identified was the lack of consistent supply. New Zealand was reported as having a consistent year round supply, whereas Canadian lamb is not available year round and is particularly hard to source in the winter. It should be noted that 28 percent did not answer this question. The remaining respondents provided overall comments such as lamb should not be imported at all into Canada and that New Zealand lamb is not really a competitor to Canadian lamb, and is therefore hard to compare.

Survey participants appeared to prefer Canadian lamb when it comes to quality factors. In all, 50% of those surveyed indicated that they preferred the quality of Canadian lamb to New Zealand and Australia. However 38% chose not to answer this question. Some of the reasons given for the preference for Canadian lamb over New Zealand – in relation to quality – include: grain fed lamb (Canada) produces a better tasting product than grass fed lamb (New Zealand and Australia); customers prefer a local product; and, Canadian lamb is fresher and of a larger portion size. Those respondents who preferred the quality of New Zealand lamb over Canadian lamb indicated simply that the quality of New Zealand was more consistent.

Forty percent of those surveyed responded that they found Canadian lamb to be priced higher than New Zealand and/or Australian lamb. One person indicated that while the prices of fresh lamb were comparable, New Zealand frozen lamb was much cheaper. While the price of Canadian lamb in comparison to New Zealand and Australian lamb was identified as being an issue, it should also be noted that 44 percent of those surveyed did not answer this question.

The question comparing the role of merchandising support in Canadian lamb versus New Zealand and Australian lamb also had a very high non-response rate – at 44 percent. That such a high percentage considered the question not worth answering could be construed in a number of ways. 25 percent clearly indicated that merchandising support in Canada is poor. It was pointed out that New Zealand has much better brand equity, i.e. in terms of recipe cards and stickers, and that there is little to no advertising and promotion of Canadian lamb in Canada. While this question did not have a high response rate, it should be noted that the comments regarding lack of merchandising report, in particular in relation to advertising and promotion, were brought up repeatedly throughout the rest of the survey. Lack of advertising and promotion of Canadian lamb to customers appears therefore to be a significant problem within the industry. This will be discussed further in the challenges and opportunities summary.

Participants were also asked how they felt Canada compared to New Zealand and Australia in terms of overall trading relationships and willingness to share information. This question was only answered by 13 percent of the respondents. Responses were varied. Some of the comments that were shared by the respondents include:

- New Zealand is definitely supportive in creating new markets;
- New Zealand distributors have open relationships with their customers, and they undertake extensive analysis with each customer;
- New Zealand suppliers have a greater passion about filling markets; in Canada there is also insufficient attention paid towards supplying the markets for wool and skin products;
- There is little information sharing in Canada, but it is possible to view/track sales;

It appears from the comments that New Zealand suppliers have a better trading relationship with their customers and are more willing to work directly with their customers over the long-term and share strategically important information. While the 77 percent non-response rate should be taken into consideration when evaluating these comments, if representative of

customers over all, this is a significant issue in terms of service capabilities of Canadian lamb suppliers.

Finally, respondents were asked to reflect on whether or not they felt any of the factors mentioned above (supply, quality, price, etc.), had changed over the last five years, and what might be influencing these changes. 15.6 percent of those surveyed indicated that they had observed changes in the last five years. The following are some of the comments offered up by the respondents:

- New Zealand lamb, while always consistent in quality, has increased in availability and volume.
- BSE has led to significant market opportunities as smaller producers are leaving the industry and this void is not being replaced by other farmers – thus there is room to grow.
- Canadian farmers are producing a more tender lamb, with less fat.
- Prices for fresh Canadian and New Zealand lamb have become more comparable.

Overall, inconsistency in Canadian lamb was often cited as a problem by the respondents: primarily volume, though also in terms of quality. Regarding volume and availability, it was quite often stated throughout the survey that Canadian lamb supply was extremely inconsistent: particularly in comparison to New Zealand. Whereas New Zealand has a year round supply, Canadian lamb supply is generally seasonal. Beyond supply variances, little communication is usually given ahead of time for when changes in supply will occur.

Regarding quality, the inconsistency of Canadian lamb quality was also in comparison to New Zealand lamb. Respondents deemed NZ lamb as being very consistent in quality. Canadian lamb was not deemed even close in consistency compared to New Zealand products. Although respondents generally found that the taste quality of Canadian lamb was better than New Zealand and Australian products, the consistency of the quality, in terms of size firstly followed by fat/leanness, could often not be depended upon. This was especially noted as a problem in the foodservice area, where caterers found it difficult to use Canadian lamb because they could not guarantee that the meat cuts, for example lamb chops, would all be the same size. In their business, it is important that the cuts be fairly uniform and consistent in size.

6.2.4 Inspection and Grading

Respondents were asked a number of questions relating to the grading and inspection of lamb and mutton in Canada. They were asked whether they felt processing lamb through provincially inspected plants limited market opportunities; how they felt about the current grading system; whether or not they felt it adequately addressed the needs of Canadian lamb suppliers; and how the current system could be improved to better reflect the needs of the Canadian lamb industry.

As was observed in the literature review section, the majority of Canadian lamb is processed through provincial rather than federally inspected facilities. Lamb slaughtered in provincially inspected plants must be sold in the province in which it was slaughtered. This could potentially limit the opportunity of Canadian lamb to infiltrate markets across Canada. Participants were asked to share their opinion regarding whether they felt that slaughtering lamb in provincially inspected plants limits the market opportunities for Canadian lamb compared to imported lamb or other lamb products.

25 percent of the respondents agreed that provincially inspected plants limited market opportunities. 37.5 percent disagreed with the statement, and 37.5 percent did not answer this question. However, when the answers are broken down by sector, it was found that 60 percent of primary processors and an even higher percentage of retailer and foodservice respondents

believe that market opportunities are limited by the unavailability of federally inspected plants. Some of the main comments of those who felt that opportunities were limited include:

- Limits Ontario suppliers to a certain extent, and will have larger impacts when the borders completely re-open.
- The majority of federally inspected plants are not set up for lamb, have no desire to do so because of the small volume of lamb, or the lack of consistent supply discourages investment.
- It becomes a political problem when marketing to grocery store chains as large grocery store chains will often not deal with provincial plants for a number of reasons.

Twenty-two percent of the 25 percent who felt that market opportunities were limited because of the lack of federal processing indicated that they would purchase more lamb than they currently were of federally inspected Canadian lamb was more widely available. One reason cited for this is the fact that Canadian carcasses are a better quality and taste. However, it could also be due to expectations surrounding lower cost structures (both at the processor and custom level), the relative ease of securing necessary volumes, greater consistency, mitigation of possible legal ramifications, access to tray-packed / better merchandised or presented products, or improved customer service.

Survey participants were asked whether or not they were aware of the *Canadian Lamb and Mutton Grading Standards*. Only 19% of those surveyed said that they were aware, and almost 50 percent did not answer this question. Not surprisingly, of the 19 percent who were aware of the standards, 80 percent were processors.

Of those who answered the question about whether or not they felt the standards adequately assist in directing the supply of Canadian lamb and mutton to appropriate markets through differentiating carcasses according to size and quality, almost 100 percent agreed that it was. However approximately 50 percent implied that they had modified the grading system to suit their own requirements; thereby narrowing the specifications in an attempt to ensure greater consistency. Others simply knew of it though did not consciously implement them. Only one person felt that the current standards were definitely not appropriate and said that the system should be based on quality as well as yield.

Respondents provided recommendations on how the current system could be improved. One participant commented that grading should be a mandatory requirement and not optional. Other comments include: a cost effective and accurate RFID and tracking system should be developed; there is a need to find cost effective and accurate readers for taking GR measurements to produce a more consistent product (particularly as a need exists for smaller producers to have access to cost effective measurement tools); and, need to develop ways to grade according on consumer preference.

Comment surrounding the need to grade according to consumer preference also comes up in the producer survey section. The reasoning behind this comment is that there are different markets for lamb and mutton in Canada, that each market desires different lamb and mutton characteristics, and the specifics of each market's requirements are becoming more acute. Thus, this means that producing a consistent product does not mean that meeting the needs of all the markets will mean all lamb is produced to the same specifications. There will be some flexibility in producing heavier/lighter animals based on market preferences. This subject will be discussed further in the section on the producer surveys.

This next section summarizes the results from the interviews at the producer level. The questions are similar to the questions asked in the processing and forward interviews, but with some minor changes to better reflect operations that occur at the producer level and not at the processor level or further down the chain, and visa versa.

6.3 Summary of Interview Results at the Producer Level

This section looks at the results from second set of interviews that were held at the producer level. In total, there were 26 respondents from across the country. Of the 26 respondents, 15% were feedlot operations, 31% were lamb finishing operations, 8% breeding stock operations, 46% were some combination of feedlot, weaners, finishing and breeding stock operations. Geographically, the respondents were spread out across Canada. The greatest representation was from Ontario and the Prairies (27% each), Quebec (19%), British Columbia (15%) and the East Coast (12%).

6.3.1 Operation Characteristics

This part of the survey looks at operation characteristics, and, broadly speaking, includes the number of lamb marketed annually, shortages experienced, lamb breeds, facilities supplied and the type of information that is received from processors regarding the lamb and sheep that were seeking from the producer in question.

Producers surveyed were asked how many lambs were marketed annually in one of three categories: weaned lamb, finished lamb and breeding stock. Many producers marketed lamb in more than one category.

Only two producers surveyed marketed weaned lambs. One producer marketed over 1,000 weaned lambs annually; the other approximately 100 annually.

All of the producers surveyed marketed finished lamb. The number marketed annually depended on the size of the operation and ranged from between 80 finished head per year to tens of thousands of head per year. For the purpose of analysis, producers were broken down into small, medium and large enterprises based on arbitrary classification. Producers with less than 1,000 head of finished lamb were classified as small; producers with 1,000 to 10,000 head were classified as medium; and producers with 10,000 head of finished lamb and over were classified as larger. Based on this classification, 54 percent of the respondents were smaller operations, 38 percent of the respondents were medium sized operations and 8 percent were large operations. Thus, it can be seen that the majority of the respondents were smaller and medium sized producers.

Eleven of the 26 producers marketed breeding stock. Again, the numbers marketed ranged quite a bit, but were not as varied as the number of marketed finished lamb. Marketed breeding stock numbers ranged from six to 1,000 head per year.

Those survey participants who were finishers were asked where they sourced their lamb from. Fifty percent of respondents answered this question. Of those who answered, 46 percent sourced from their own farms, 15 percent sourced from local producers, 15 percent sourced nationally and 23 percent indicated that they bought from auctions or the market.

Producers were also asked whether or not they had experienced shortages of lambs that they were seeking to purchase. Four producers indicated that they have never had trouble sourcing lamb, while three producers indicated that they have had problems sourcing lamb. One

producer indicated that for him, it was a recent problem and in the past he has never had problems sourcing lamb. Another producer indicated that he regularly has problems sourcing lamb due to the seasonality of production. And the third producer indicated that he had a problem sourcing lamb due to the inconsistency in volume and quality.

Producers were surveyed about whether or not they source on forward contracts. Not surprisingly, none of the producers currently source based on forward contracts. Some producers indicated that they had in the past, but that it was not successful, mainly because suppliers do not follow through on the contract. This was brought up as a major issue by a producer/processor, as well as other processors during the previous round of consultations. His comment was that he finds it difficult to work with producers because they agree to a contract and then they fail to deliver. Part of the problem is that there are no consequences to the producers for not fulfilling the contract. Comments surrounding the lack of penalization for producers breaching contracts, mainly due to the current imbalance between supply and demand of Canadian lamb, were not unusual during the overall consultation process.

A number of medium to large producers raised the issue of what they term an ineffective traceability system. Comments surrounded two main issues. Firstly, from the processing side, lack of access to information surrounding individual carcass composition and performance in order to improve flock management, better manage risks, and streamline production systems. Secondly, from the supply side, lack of ability to trace animals back to the breeder if they experienced a problem with performance or health, which would allow them to modify purchasing arrangements and again reduce financial risk.

Some producers purchase specific breeds of lamb. Of the 26 producers surveyed, 77 percent indicated that they did purchase specific breeds of lamb for various reasons. Some of the reasons for purchasing specific breeds are listed below:

- Some breeds of sheep do produce large enough carcasses of the correct leanness
- Some breeds of sheep have a better life expectancy
- Use different terminal sires based on the market trying to sell to
 - i.e. for freezer and local butchers use Suffolk and Dorset, which produce a larger lamb
 - for Cookstown (auctions), use smaller lambs that fair better at stockyards
- Stay away from sheep that produce too much wool
- Look for breeds with good material qualities and high lambing percentage
- Buy breeds that are 'meatier', i.e. Isle de France and Charolais
- For specific maternal characteristics
- A combination of meat and wool characteristics
- For specific maternal characteristics
- For herding characteristics – necessary for range flocks (ewes and replacements)
- Some producers prefer only purebreds, and not cross breeds, while other producers prefer cross breeds

Producers prefer a variety of different breeds of sheep and lamb, ranging from Suffolk and Dorset to Charolais and Arcott Rideau. The type of breed purchased largely depends on the characteristics that the producer desires in the sheep; though producers often tend to look for a number of characteristics from their flocks so have to compromise specific traits that could be obtained in a meat lamb in order to maintain an all-round good sheep. The geographical location did not appear to produce a leaning towards any one specific genetic brand of sheep.

The first section of the interviews provided a background of the operational characteristics of the enterprises surveyed. The next section looks at the standards and grading, and producers' awareness of the process.

6.3.2 Standards and Grading

In this section of the interviews, producers were surveyed about their awareness of the Canadian Lamb and Mutton Grading Standards and whether or not these standards are appropriate for the Canadian industry, as well as what facilities the producers supplied and the types of information they received from the processors, and finally, what improvements could be made to the standards to make them more applicable to the current industry.

The participants surveyed were asked if they were aware of the *Canada Lamb and Mutton Grading Standards*. One person did not answer this question, but for those who did, fifty-six percent were not aware of the standards. Only forty-four percent were aware of the standards. Many of those are not particularly familiar with the standards, though have a basic knowledge. Awareness of the Standards does not appear to be affected by location.

Participants were also asked whether or not they felt that the Standards adequately assist in directing the supply of Canadian lamb and mutton to the appropriate markets through differentiating carcasses according to size and quality. Of the forty-four percent who were aware of the Standards, sixty-four percent agreed that the Standards were appropriate, while 18 percent felt that they weren't appropriate. Those who were in disagreement commented that there were too many breeds and the Standards did not appropriately address the issue of weight – some markets want a heavier/lighter lamb, but producers are still 'docked' money for heavier/lighter lambs. This implies that an imbalance between processor/market requirements and producer knowledge of market requirements is a common occurrence, yet, as seen in a number of successful marketing initiatives, is an crucial step to increasing the financial value of lambs. A number of the same participants responded that there is a need for more slaughter houses that are able to ship inter-provincially and cater to smaller markets in order to more accurately determine specific carcasses for certain markets and increase their value.

To determine where the producer's lamb was being slaughtered, participants were asked if they supplied a federally inspected or a provincially inspected facility. Half of the participants indicated that they supplied solely to provincially inspected plants. Twenty-three participants supplied only federal facilities, while twelve percent supplied both federal and provincial facilities. Fifteen percent declined to answer the question.

Producers were then asked if they thought that the fact that the majority of Canadian lamb was processed through provincial rather than federally inspected facilities limited the market opportunities for Canadian lamb compared to imported lamb or lamb products. Of those participants who answered this question, 61 percent agreed with the statement that this does indeed limit market opportunities for Canadian lamb. Some of the comments regarding this are as follows:

- It is difficult to establish contracts with larger supermarket chains without federal kill
- Provincial abattoirs should be able to ship inter-provincially – standards should be the same across the board
- Prohibits exporting (supplying to the United States)
- In places such as the Maritimes there is only one federally inspected facility, and thus access to federal processors are limited.
- It means that we need to bear the cost of shipping live lamb out of the province to gain access to federal processors.

A common thread in the comments was that it limits the opportunities to supply national supermarket chains. However, it was also mentioned quite often that perhaps the current industry is too small and/or fragmented to support an increase in federal facilities.

On the other side, a number of producers do not feel that the lack of federal facilities limits market opportunities. Mainly, this was observed because the industry is too small for it to matter. Producers are having problems supplying the current facilities. This is not applicable to provinces such as Alberta, where Sunterra is a major processor of lamb, and is a federally inspected plant. The ability to ship lamb live between provinces is also an argument as why more federally inspected plants are not required.

There are three main points that can be taken away from this: 1) there should be harmonization across the provinces to ensure that processed lamb can be shipped inter-provincially; 2) the current industry is too small (the supply is not large enough) to support more federally inspected facilities; 3) current inspection regulations hamper industry growth and profitability.

6.3.3 International Comparisons

This section summarizes producers responses to how Canadian lamb fares in comparison to New Zealand and Australian lamb, in particular with respect to supply, quality and price, as well, producers were asked to comment on whether or not these three factors have changed over the last five years.

Producers overwhelmingly felt that Canadian lamb differed from Australian or New Zealand lamb in regards to supply (81%). The main factor driving the difference, as commented on by the survey participants, is the consistency and volume of supply. New Zealand lamb is seen as being available year round, with a consistent size, weight and presentation (uniform product). On the flip side, Canadian supply is not as consistent and is seasonal. However, there were some comments from the producers that the seasonality of Canadian lamb does not occur to the same degree as it used to be.

In terms of lamb quality, producers once again overwhelmingly felt that there was a difference between Canadian and New Zealand or Australian products. However, this time, while the majority felt that Canadian lamb was superior in quality, a majority also felt that New Zealand lamb was presented, packaged and merchandized far better than Canadian lamb. Arguments for the superior quality in Canada are factors such as grain fed lambs produce a better tasting more tender meat, Canadian lamb produces larger chops, New Zealand lamb has more of a 'mutton' flavour and Canadian lamb is younger and producers a better taste.

However, some producers also felt that New Zealand lamb was still ahead of the game in terms of quality. Reasons for this include:

- New Zealand does a good job in presenting their lamb and there is consistency in portion size.
- Research, production, processing and understanding then responding to market demands are far superior in New Zealand and Australia.
- New Zealand markets lamb more effectively and has broader brand recognition.

Thus, depending on the factors considered, the producers are divided when it concerns the quality of Canadian lamb versus the quality of Australian and New Zealand lamb. Although it is mentioned often that Canadian lamb is superior in taste, when the whole package is considered,

New Zealand and Australian lamb clearly has the edge – particularly when packaging, presentation, marketing and a consistent portion size are considered.

Canadian lamb prices were compared to New Zealand and Australian lamb prices. Sixty-five percent of respondents felt that there were indeed differences in price. The majority of these respondents indicated that New Zealand lamb was cheaper, specifically frozen New Zealand products. However, it was also noted that the price differential between Canadian and New Zealand lamb has lessened over the last five or so years.

Finally, producers were asked to comment on the extent that the above mentioned factors (price, quality and supply) have changed over the last five years, and what could be the possible drivers of these changes. The following are some of the comments:

- Canadian lamb is improving and becoming more consistent
 - Although, it was also commented that while the quality of Canadian lamb is getting better, the consistency has not improved much – if at all.
- The price differential between Canadian and New Zealand is lessening
- The seasonality of Canadian lamb has diminished
- There is more imported lamb in supermarkets today than there was five to ten years ago.
 - However, it was also commented on that there is now more Canadian lamb in the stores.
- Marketing and presentation of Canadian lamb is improving.
- New Zealand has better adapted to supermarket chains and restaurants by offering boxed meat and specific cuts that are almost in a ready to eat state to sell to the consumer.
- Without New Zealand lamb we would not have a market. Its continued availability keeps consumers interested in lamb and its marketing drives overall lamb sales.

It can be seen that the answers are quite varied, and in some instances, contradictory. Part of the reason for the contradictions could be due to geographical location. As Canada is such a large and diverse country, the industry is not necessarily uniform across all provinces.

The next section summarizes challenges and opportunities for the lamb industry, as indicated by the respondents of both the producer and the retailer and processor surveys.

6.4 Challenges and Opportunities

The Canadian lamb industry is certainly faced with many challenges that it must overcome to attain a sustainable level of international competitiveness and achieve its full market potential. There are however many strengths and opportunities that can be capitalized upon, given the right strategies and tools. This section will summarize the identified challenges and opportunities for the Canadian lamb industry. Phases 3 and 4 of the research look at how the Canadian Sheep Federation can best act on the identified challenges and opportunities.

It is beneficial to look at the challenges and opportunities from a producer standpoint, then from the rest of the industry (retail, foodservice and processors), before comparing the two macro views to determine if the producers and the rest of the value chain identify similar challenges and opportunities: along with an attempt to identify where any discrepancies lie between the two series of perspective and the possible reasons for the existence of those discrepancies.

The following bullet points list the challenges to the Canadian lamb industry, as identified by the producer interviews:

- There is a need to produce lamb year round. This may be expensive, but there also advantages, such as the need for less barns.
- Need to provide consistent quality for a particular buyer. Producers need to be aware of the needs of the buyers.
 - Producers need to market to consumers as well.
- There is a need to increase the volume of lamb produced. This ties in with the challenge of producing lamb year round.
- Adequate abattoirs are needed to process lamb to the level and scale needed by the largest potential markets.
- There is too much fragmentation between industry associations, governments and producers, which leads to a lack of vision.
- Many in industry and government do not take the lamb industry seriously.
- Predators are a huge challenge for some producers, particularly those in Ontario and Quebec.
- People are leaving the industry, and the void is not being filled. There is a challenge of attracting people to enter the industry.
- Producers are constantly challenged to find available drugs for the commercial production of lamb in Canada. This is a regulatory issue that challenges many livestock industries.
- New Zealand and Australia have lower costs of production due to the cost of winter housing and feed regimes in Canada. There is a need to reduce the costs of production in Canada, without compromising quality.
- Lamb products need to be better promoted at the local level. If it is necessary to charge a higher price for the product, promote the fact that it is of higher quality and identify the differentiation between products.
- Efficiency in slaughter and processing. Currently many processors do not want to dedicate a plant to slaughtering just lamb because it is easier to kill beef, veal, etc.

Respondents in the processing, retail and foodservice sectors were also asked to identify challenges that face the Canadian lamb industry. The challenges identified are as follows:

- Marketing lamb in Canada (against capable importers) is a challenge the industry faces.
- Increased and consistent volume and quality.
- The scale and scope of the Canadian lamb industry. Currently, the challenge is to develop the industry so lamb is a mainstream industry, not a 'cottage' or sideline industry.
- Need for more federal inspection
- Whole carcass buying is a barrier to many potential customers
- Costing (pricing) is not similar to New Zealand
- Lack of marketing efforts/programs to promote Canadian lamb
 - Canadian consumers are generally unaware of the product
- Lack of cohesion in the industry between producers, the rest of the value chain, government and industry organizations.

There are a few common threads that run through the identified challenges. Overall, it is well acknowledged that a consistent supply and quality is important in growing the Canadian lamb industry. The size, scope, and technical capabilities of the industry need to increase in order for the Canadian lamb industry to become more competitive (both internationally with lamb imports, and domestically with meat substitutes such as beef and pork). It has been identified that the lack of cohesion or integration between the producers, other members of the value chain, governments and industry organizations is one barrier to the effective expansion of the lamb industry. The result of this is seen by consumers as inconsistent or suboptimal availability, quality and merchandizing of Canadian lamb compared to New Zealand or Australian lamb.

Marketing was not raised as a challenge by producers to anywhere near the same extent as the rest of the value chain. It was however often mentioned as a means to address some of the challenges facing the industry. Retailers and foodservice operators, particularly the multiples, stated that the policy of processors to often sell only whole and half carcasses rather than individual cuts was a further obstacle that needs to be overcome in order to better market and capture added value from Canadian lamb. The lack of promotion of Canadian lamb is also a challenge facing the industry. The result of these current policies are seen by consumers as poor merchandizing and presentation of Canadian lamb compared to New Zealand lamb, reducing its visual appeal and perceived value. The latter in particular is exacerbated by a lack of product knowledge and awareness of Canadian lamb per se due to little if any promotion.

Producers also had identified more production level challenges than the other respondents. In particular, predators, and the lack of medicine/drugs for lamb production was raised as an issue. A number of medium to larger producers also stated that lack of industry emphasis on driving advancements in production techniques and capabilities reflected the seeming preference of producer associations to act in an egalitarian fashion to appease smaller producers, who form the largest percentage of the industry by number, rather than looking proactively at how the lamb industry can move forward in commercial terms compared to New Zealand and Australia. If this is in fact the case, associations would likely be hampered from developing the vision and policies needed to encourage new entrants or current producers to expand their flocks to replace producers who are exiting the industry. A not infrequent comment was that producers would pay higher check-off payments if their associations would take a more active role in developing a well coordinated and commercially-centered lamb industry.

Regardless of the position in the value chain – be it producer, retailer, processor or food service – there are certainly challenges that need to be overcome for the Canadian lamb industry to become more profitable and long-term viable. Methods that could be applied to overcome these challenges will be identified in Phase 3.

Survey participants were also asked to identify market opportunities that they believe exist for the Canadian lamb industry and that are currently not being maximized or acted upon. These opportunities will be broken down by producers, processors, retailers, and foodservice participants.

The producers surveyed identified a number of market opportunities for the Canadian lamb industry. These opportunities include:

- Improving quality and capitalizing on consumer health concerns will be an important market down the road.
 - Increasingly, consumer interest in health will be a driver that can potentially be met through delivery of grass fed lamb with omega-3 and other nutrients
- High end supermarkets
 - Target 'better-off' consumers who are looking for gourmet meat products.
- There is an opportunity to increase the Canadian flock size.
- Ethnic markets are growing quickly – particularly Middle and Far East consumers
- Potential to export to the United States
- Increase supply to restaurants and caterers
- Target high populated areas, such as Montreal, Toronto and Vancouver (high ethnic populations in all three cities, as well as affluent 'western' consumers)
- Keep supplying niche markets
- Getting more products into grocery stores.

- In volume and overall value terms, mainstream grocery retailers undoubtedly offer the Canadian lamb industry the greatest potential market opportunities.
- However, they were one of the markets mentioned the least by producers.

The processors, retailers and foodservice participants were also asked to identify potential opportunities for the Canadian lamb industry. The following bullet points outline the identified opportunities:

- Mainstream grocery outlets.
- Fine dining restaurants, i.e. French restaurants and bistros.
- Ethnic population and restaurants.
- Corporate and business functions.
- Supplying more value-added and ready to eat food, such as pre-marinated lamb.
- Promote as a high end product for the discerning consumer.
- Capitalize on ‘fresh’ Canadian lamb products, as opposed to frozen imports.
- There is an opportunity to increase interest in Canadian lamb by differentiating Canadian lamb from others, such as Australia and New Zealand.
- Specialty stores.

It can be seen that there is a lot of agreement between producers, processors, retailers and foodservice about what opportunities are available to the Canadian lamb industry. Based on the interviews, there is a potential for the industry to expand across all areas, including ethnic populations, supermarket chains, specialty super markets and high-end customers. As well, an interesting opportunity that was identified is the retail ready market. Providing products such as pre-marinated lamb could very well be a viable opportunity for the Canadian lamb industry, as would value-added lamb products such as kebobs, patties, sausages and other products implied from results of the consumer research. Phase 3 and 4 will talk in more detail about how the Canadian sheep industry can better take advantage of the opportunities mentioned in this section and in other sections of the report.

6.5 Summary of Consultative Interviews

The consultative interviews provided valuable insight into the machinations of the Canadian lamb industry, and as well, it provided some beneficial information about the challenges and opportunities that are currently facing the industry. The following table summarizes the key points that were gleaned from the consultative interviews and that bear repeating.

Table: Summary of Consultative Interviews

	Retailers/ Food Service	Processors	Producers
Supply Issues	<input type="checkbox"/> Retailers did not by and large indicate specific supply issues, though multiples particularly acknowledged supply issues exist <input type="checkbox"/> Foodservice indicated seasonal supply shortages, particularly larger operators	<input type="checkbox"/> Those who produce own lamb never see shortages <input type="checkbox"/> Others see seasonal shortages, and around major holidays <input type="checkbox"/> Has resulted in some processors losing contracts to retail and foodservice chains	<input type="checkbox"/> Supply was not indicated as a prevalent issue <input type="checkbox"/> Many producers enjoy the current supply scenario as prices are higher than previous years <input type="checkbox"/> Some frustrated at continuing focus of associations on smaller producers
International Comparison	<input type="checkbox"/> NZ offers more consistent quality <input type="checkbox"/> Eating quality of	<input type="checkbox"/> NZ lamb supply consistent, but they should not be seen	<input type="checkbox"/> Acknowledged that Canadian supply not as consistent as

	<ul style="list-style-type: none"> <input type="checkbox"/> Canadian lamb better <input type="checkbox"/> Canadian lamb prices higher <input type="checkbox"/> NZ has a good promotional program <input type="checkbox"/> NZ provide better customer and marketing support <input type="checkbox"/> NZ offers a range of different cuts <input type="checkbox"/> Not limited to seasonal supply <input type="checkbox"/> NZ can develop better business relationships 	<ul style="list-style-type: none"> as competitors to Canadian product <input type="checkbox"/> Eating quality of Canadian lamb is superior <input type="checkbox"/> NZ lamb prices were sometimes seen as cheaper, but also seen as competitive with Canadian prices <input type="checkbox"/> NZ more passionate about supplying market 	<ul style="list-style-type: none"> New Zealand but generally observed that situation in Canada was improving <input type="checkbox"/> Eating quality of Canadian lamb better <input type="checkbox"/> NZ quality better in consistency and presentation
Challenges Facing the Industry	<ul style="list-style-type: none"> <input type="checkbox"/> Unable to handle whole or part carcasses <input type="checkbox"/> Pricing not similar to NZ lamb <input type="checkbox"/> Canadian consumers unfamiliar with product <input type="checkbox"/> Inconsistent supply, presentation, merchandizing, reduces repeat purchases 	<ul style="list-style-type: none"> <input type="checkbox"/> Scale and scope of the industry: lamb mainly viewed as a sideline industry <input type="checkbox"/> Marketing of Canadian lamb virtually non-existent <input type="checkbox"/> Cohesion needed between all levels of value chain, including gov'ts and sheep marketing organizations 	<ul style="list-style-type: none"> <input type="checkbox"/> Predators <input type="checkbox"/> Reducing cost of production to remain competitive <input type="checkbox"/> Produce lamb year round <input type="checkbox"/> Improve quality <input type="checkbox"/> Availability of latest medications <input type="checkbox"/> R&D to improve production <input type="checkbox"/> Access to breeds <input type="checkbox"/> Access to technical information
Opportunities Available to the Industry	<ul style="list-style-type: none"> <input type="checkbox"/> Retail ready cuts <input type="checkbox"/> Improved marketing and merchandising <input type="checkbox"/> Value-added, such as pre-marinated <input type="checkbox"/> Promote fresh and local more often <input type="checkbox"/> Ethnic markets <input type="checkbox"/> Higher-end clientele <input type="checkbox"/> Fine dining 	<ul style="list-style-type: none"> <input type="checkbox"/> Specialty stores <input type="checkbox"/> Federal processing <input type="checkbox"/> Matching carcasses to end market to increase value <input type="checkbox"/> Grocery stores <input type="checkbox"/> Ethnic markets <input type="checkbox"/> Retail ready lamb 	<ul style="list-style-type: none"> <input type="checkbox"/> Ethnic markets <input type="checkbox"/> Restaurants <input type="checkbox"/> High population areas <input type="checkbox"/> Capitalize on consumer health concerns <input type="checkbox"/> Differentiation <input type="checkbox"/> Supermarket chains

Retailers, food service and processors all acknowledge that there are supply issues in the Canadian lamb industry. Some processors have large concerns regarding supply and have even lost out on contracts to supply supermarket chains because they could not guarantee consistent supply and/or quality. On the producer side, supply was not indicated as a prevalent issue, and was only brought up by a few survey participants. It was however frequently reported by producers that New Zealand is far ahead of Canada when it comes to achieving a consistent product supply.

While part of this problem surrounding providing consistent quality and supply relates to climatic differences, the problem also appears to reflect the nature of the Canadian lamb industry at production level: we are looking to the next sale, not what continued breaks in supply could bring in terms of lost market opportunities and long-term competitiveness. Another fact endemic of this essentially short-term (even narrow-focus) is that producers do not always follow through with supply agreements – even amongst producers. For Canada to remain a competitor, these issues need to be addressed.

It was also frequently reported that Canadian lamb is not the same product as New Zealand lamb. As such, it could be differentiated and promoted as a separate product. This is obviously a strategy already being considered by at least a few multiple retailers. Given that the costs of production in Canada are deemed higher than in New Zealand and Australia, and that Canadian lamb is priced higher than New Zealand and Australian lamb prices yet still retains a position of offering better value from the consumer perspective, this option warrants consideration.

Challenges facing the industry vary by respondent category. That is not overly surprising given the distrust that appears to exist between and at all levels of the lamb industry. Producers are more concerned with challenges that face each producer individually, such as predators and high costs of production. Processors are concerned that the size and scope of the industry is not large enough, and that currently lamb is more of a sideline industry rather than a mainstream one, such as pork and beef. Retailers, on the other hand, are concerned that they would have to purchase whole carcasses and that they cannot promote Canadian lamb for fear of having stock-outs and quality issues, which would alienate their consumers and perhaps lose more than just their lamb business to a competitor.

From discussions surrounding business relationships and potential supply/marketing arrangements and avenues, it became obvious that polarized views of what can or cannot be achieved are more prevalent amongst producers than any other level of the industry. This implies that many are less aware of their options and less informed about the opportunities and benefits that could be achieved through forward marketing and entering coordinated supply arrangements. Some producers went so far as to say that forward marketing would see the demise of auction systems and ruin the entire industry. Producers in general were less aware than other levels of industry of the impact that issues such as the lack of federal processing could and does have upon the competitiveness of the Canadian lamb industry. In particular, smaller producers also tend to be less aware of the basis of major competitors' technical and production/supply capabilities.

One thread that was fairly consistent across all surveys was that significant market opportunities exist for the Canadian lamb industry. As it can be observed from the table above, retail-ready lamb, ethnic consumers and fine dining restaurants were prevalent across all areas of the value chain. To a lesser extent, particular amongst producers, multiple retailers were recognized as a genuine market opportunity. All of the abovementioned opportunities are viable market options through which the Canadian lamb industry can expand.

The next phase of the report provides a comparative analysis across the literature review, the consumer research and the consultative interviews. In this phase, the strengths and weakness of the Canadian lamb industry will be highlighted, broad challenges to the industry will be further summarized, including how these challenges can be met, and a number of opportunities that the lamb industry could embrace to achieve an enhanced level of competitiveness, will be outlined; as well as suggestions for how these opportunities can be met by the Canadian lamb industry.

7.0 Phase 3: Comparative Analysis

Phase 3 is a comparative analysis of the results from the literature review, the consumer research and the consultative interviews. This phase is divided into four sections: Section 7.1 will detail the perceived strengths and weaknesses of the Canadian lamb industry. It will also identify perceived gaps in the industry structure. As well, section one will contain an economic assessment of the impact on the industry if the supply of choice cuts is increased. Section 7.2 will look at the identified challenges that the Canadian lamb industry is facing, and possible ways that these challenges can be met. Section 7.3 will look at the opportunities that are available to the industry, and how the industry can take advantages of these industries. Finally, Section 7.4 provides a 'Looking Forward' analysis.

7.1 Strengths and Weaknesses of the Canadian Lamb Industry

The literature review, the consumer research and the consultative interviews highlighted perceived areas of strengths and weaknesses in the Canadian lamb industry. As well, gaps in the structure of the industry were also identified. This section looks at these strengths, weaknesses and gaps and discusses their implications for the Canadian lamb industry.

The table below outlines a variety of strengths and weaknesses that were identified in previous phases of this report. It should be noted that some of these strengths and weaknesses can also be perceived as challenges and opportunities.

Table: Identified Strengths and Weaknesses Identified in Phases One and Two

	Strengths	Weaknesses
Literature Review	<ul style="list-style-type: none"> <input type="checkbox"/> Inventories of sheep have increased in the 2000's <input type="checkbox"/> Increase in farm cash receipts in 2005 <input type="checkbox"/> Consumption of lamb and mutton has been steadily increasing across a number of markets <input type="checkbox"/> Market growth: 6.9% alone between 2003 and 2004 at retail level <input type="checkbox"/> Canadian lamb industry increasingly aware and researching market opportunities 	<ul style="list-style-type: none"> <input type="checkbox"/> Lack of co-ordination between provincial sheep marketing organizations, national organizations, and government at many levels <input type="checkbox"/> Minimal opportunity to export sheep and lamb products, coupled with increases in imports <input type="checkbox"/> Up to three-quarters of Canadian slaughter occurs in provincially inspected plants <input type="checkbox"/> Lack of available grading information <input type="checkbox"/> At the retail level, Canadian lamb is often out of stock, even though consumption is increasing <input type="checkbox"/> Lack of effective marketing or production of lamb that reflects market demands
Consumer Research	<ul style="list-style-type: none"> <input type="checkbox"/> Lamb taste and consistency of quality highly valued by 	<ul style="list-style-type: none"> <input type="checkbox"/> Lamb not necessarily core component of people's diet <input type="checkbox"/> Lack of awareness and

	<p>consumers</p> <ul style="list-style-type: none"> <input type="checkbox"/> High satisfaction overall with lamb <input type="checkbox"/> Canadian lamb quality considered equal to NZ and Australian <input type="checkbox"/> Value of Canadian lamb considered greater than NZ or Australian lamb <input type="checkbox"/> Significant room for value-added lamb products 	<p>knowledge of lamb per se</p> <ul style="list-style-type: none"> <input type="checkbox"/> Lamb mainly occasional weekend and holiday meal <input type="checkbox"/> Not seen as good value for money compared to other red meat <input type="checkbox"/> Whole family won't eat it <input type="checkbox"/> Not convenient or easily prepared <input type="checkbox"/> New Zealand possess better reputation and availability
<p>Consultative Interviews</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Quality (taste) of Canadian lamb is considered higher than NZ or Australian <input type="checkbox"/> Price points vary, but in many instances it was indicated that the price differential was closing in, even though CAD meat still more expensive <input type="checkbox"/> Many customers (retailers and foodservice) would like to purchase more Canadian lamb <input type="checkbox"/> Range of lamb markets is diverse and expanding 	<ul style="list-style-type: none"> <input type="checkbox"/> Processors indicated to a large degree that they had experienced shortages in supply. Retailers and foodservice overcome this issue by sourcing imports <input type="checkbox"/> Consistency in quality (supply, portion size, leanness, presentation, packaging, etc.) behind NZ <input type="checkbox"/> Operators at all levels of the chain feel that provincially inspected plants limit market opportunities <input type="checkbox"/> Lack of forward contracting <input type="checkbox"/> General unawareness of the grading standards <input type="checkbox"/> Current grading system does not meet the need to produce lamb according to different market demands <input type="checkbox"/> Lack of co-ordination along the chain leads to significant transaction costs <input type="checkbox"/> Lack of co-ordination with government and between industry organizations hinders progress <input type="checkbox"/> Important policies and processes not developed or implemented for sound commercial reasons

7.1.1 Weaknesses

There were many areas of weakness that were identified in phases one and two. Many of the weaknesses identified in the industry consultations corroborate those weaknesses that were identified in the literature review; particularly those that result in suboptimal availability, merchandizing, consistency of quality, promotion, and consumer knowledge.

Overall, there appears to be a lack of co-ordination between government departments, municipalities, and sheep industry/marketing organizations on production issues; between government departments, sheep industry/marketing organizations, and businesses operating along the supply chain. All areas need to work together to properly grow the lamb industry in Canada. It was also pointed out that market opportunities for Canadian lamb are currently hindered due to the fact that over as much as three-quarters of Canadian lambs are slaughtered in provincially inspected rather than federally inspected plants. This limits the movement of the slaughtered lamb and is exacerbated by many large retailers and foodservice not being able or willing to deal with provincial slaughter houses due to technical or business capabilities as well as inspection/litigation concerns.

Part of the problem surrounding the imbalance between federal and provincial kill could be that federal slaughter facilities are not properly equipped to handle lamb, or that it is simply more profitable to slaughter to beef and veal – not least due to supply inconsistencies.

It was also identified that there is a general unawareness of the Canadian Lamb and Mutton Grading Standards. Coupled with this, there is a lack of grading information available to the public and wider industry. In the United States, there are daily and weekly reports with specific statistics about grades and yields of various cuts. This information is collected and distributed by the Meat Grading and Certification Branch of the United States Department of Agriculture.

As well, participants of the industry interviews felt that the current grading system does not necessarily meet the demands of the market. In particular, it does not recognize that different weights and compositions of lamb are suited to different markets, and that capturing value relies upon supplier quality meeting market demands. For example, some markets prefer a lighter/heavier animal than others, some require a leaner/fatter lamb than others, but this is not reflected in the current grading standards. Nor is it adequately addressed by all processors.

Another weakness identified is that at the retail level, Canadian lamb is often out of stock, even though the consumption of lamb and mutton in Canada is increasing. This then implies that retailers are compensating for the lack of Canadian lamb products by using imported lamb products. Lack of consistency, presentation performance, and gaps in customer service further alienate retailers. This is a large gap in the market that could be filled by Canadian lamb products, if they were available. Similar issues surround missed opportunities for supplying Canadian lamb to the foodservice sector.

Finally, consumer perception of lamb is a weakness that was identified in the consumer research. In particular, lamb is not necessarily a core component of people's diet and is seen by many as mainly an occasional weekend or holiday meal. Partly due lack of knowledge for lamb and possible preparation methods, it is not perceived as good value for money, it is not a meal that the whole family will eat, and is not viewed as a convenient or easily prepared meal option, and is not recognized as a satisfactory alternative to other red meats. Promotion of New Zealand lambs in stores also provides it with a better reputation than Canadian lamb. The Canadian lamb industry should not look at these weaknesses as spelling doom and gloom. They represent challenges which the Canadian lamb industry can overcome.

7.1.2 Strengths

Areas of the report identified also different strengths that the Canadian lamb industry can build upon for long term commercial advantage. It is generally agreed that the taste and overall quality of Canadian lamb is perceived to be superior, even when compared to the highly recognized brand of New Zealand. There appears to be a satisfaction with the quality of

Canadian lamb, even though consistency is an issue that requires addressing. Opinions regarding the price of lamb do however vary slightly; not greatly! Industry consultations found that price was sometimes mentioned as an issue, though the price of Canadian lamb was improving in comparison to New Zealand and Australian imports, and that it was not an area of huge concern so long as suppliers were able to address issues surrounding consistency in quality, availability, and customer service. However, the consumer research indicated otherwise, as consumers felt that, in comparison to other meats such as beef, pork and lamb, lamb lags behind in terms of good value for your money. Undeniably, this is in part due to consumer's lack of awareness and empathy for lamb: it is compared to other meats on the basis of perceptions shaped by those other meats, not on the attributes and basis of lamb itself. This is definitely an area that can be improved upon, and it is possible that differentiating lamb from other products, in particular lamb imports. Better promotion and marketing at the local level could also improve this perception.

There is room for expansion of the Canadian lamb industry. Statistics from the literature review showed that lamb flocks have been increasing, market sales in 2004 increased over previous years and the consumption of lamb and mutton has been increasing. Much of the live lamb once shipped to the U.S. is now consumed in Canada. Even with this development, large volumes of imported lamb continue to flow into the country. It is therefore possible for the industry to increase their supply and capitalize on demand. Currently, large grocery retailers are sourcing much of their product from countries such as New Zealand and Australia for reasons already mentioned. If Canadian processors and producers could ensure a consistent supply of consistent quality, that is a market that could be tapped by the Canadian lamb industry. It is not a case of having to compete against New Zealand or Australian lamb on an equal footing.

7.1.3 Industry Gaps

A number of gaps were identified in terms of industry structure. The Canadian industry is largely fragmented and adversarial. Smaller production units unable to establish specific terminal flocks or production strategies for capturing market value is the almost norm rather than the exception. This translates in high transaction costs, missed opportunities to supply and retain large markets, and suboptimal investment decisions surrounding processing facilities and technical capabilities at the producer and processor levels in particular. This results in a lack of consistency and cost effectiveness in terms of achieving the necessary levels of quality (packaging and presentation) and supply. Furthermore, this translates into gaps clearly in the current capabilities of Canadian lamb suppliers for marketing and merchandizing lamb, which rely upon economies of scale and the ability to achieve economies of consistency.

In Canada, the production of lamb lags behind the other red meat industries. It was observed in the literature review that lamb is just a tiny portion of red meat consumption. The pork, chicken and beef industries are further developed than the lamb industry. Part of this could be due to the approach that has been taken by industry associations: namely that it is still largely a cottage industry with largely volunteer governance structures which, certainly at times, do not represent the views or needs of progressive producers in discussions with stakeholders from across the industry. The same applies to their discussions with government and municipalities, and the research institutions. There are a number of large lamb producers and industry players that would like and intend to expand in order to take advantage of opportunities outlined in this report. A number of them commented however that, due to issues just mentioned, industry associations are currently unable to provide the benefits and support that they require.

In order for the industry to grow, a common thought amongst progressive producers is that the mindset of lamb is a sideline industry needs to be erased. At all levels, the industry needs to

adopt a consistently sophisticated approach to addressing production, processing, marketing issues. While there is clearly evidence of initiatives of this type occurring in Canada, it was considered that serious and visionary grassroots support is required from industry associations for this to happen on a widespread basis anytime soon through communicating effectively across the entire industry and breaking through the polarized views that currently exist in some quarters. In particular, the industry needs to focus resources on understanding market demands and developing resources that are necessary for the whole industry to take advantage of the available opportunities. This could best be reflected through changes in the operational structure and governance, and perhaps to some extent, a better understanding or a re-evaluation of the current grading system.

The lack of vertical coordination and in fact, coordination along the supply chain and in conjunction with government and the industry organizations to establish an environment conducive to encouraging the occurrence of greater coordination has repeatedly been recognized in this report as a gap in industry structure in this report. With the exception of initiatives such as Sunterra and Sask Prairie Lamb, the literature found little existence of proactive coordination occurring between producers, processors, marketers and retailers or foodservice operators handling Canadian produced lamb.

More evidence was found to be occurring during the consultation process, though it is still largely in the developmental stages compared to initiatives occurring in other countries. They include Canterbury Meat Packers (New Zealand), Tenderplus (Australia), Mountain States Lamb Cooperative (United States), and Livestock Marketing Ltd (UK). All provide examples of the benefit of coordinating operations throughout the lamb value chain to reduce transaction costs, increase margins, expand management capabilities, innovate according to market demands, and improve the marketing lamb to an increasingly discerning and experience hungry consumer through extensively sharing information surrounding operations occurring along the entire chain. The role of MWNZ and MLA has almost without doubt played a significant role in fostering the creation of a commercial environment that supports formation and maintenance of this type of commercial arrangement.

Clearly amongst the majority of producers, and some processors, there is a general lack of knowledge about the factors that are driving consumer choice, overall consumer behaviour, and demographic factors related to lamb consumption in Canada. The literature review produced few studies that have been done to this effect. In order to properly promote the consumption of lamb, it is necessary to know what factors drive consumer choice. This leads to another gap in the current industry. There is a significant lack of promotional and marketing efforts for domestically produced lamb, particularly compared to promotional activities in Australia and New Zealand. This is definitely a challenge that the Canadian lamb industry needs to meet head on if they want to increase the consumption of Canadian lamb.

This section looked at the strengths and weaknesses in the current lamb industry and identified perceived gaps in the industry structure. Many of challenges currently faced by the Canadian lamb industry stem from these gaps and weaknesses yet are opportunities waiting to be embraced. This next section looks at these challenges in more detail and suggests ways that they can be addressed.

7.2 Addressing the Challenges Facing the Canadian Lamb Industry

Many challenges facing the Canadian lamb industry have been identified throughout this report. This section groups these challenges into four main headings and introduces strategies that can be used to help meet these challenges head on.

7.2.1 Challenge 1: Creating A More Organized and Sophisticated Industry

It has been repeatedly mentioned that the lamb industry is not viewed as a mainstream red meat industry, such as beef and pork, or chicken, and that there is plenty of opportunity for the lamb industry to mature into the mainstream industry that it can undoubtedly become. To do this, the industry has to overcome the mindset that they are and always will be a cottage industry characterized by small 'mom and pop' producers. To grow and develop means adopting practices that some Canadian lamb producers, and potentially others in the industry too, will view as challenging the status quo, in turn creating fear and resistance if not handled correctly. Part of the source of any potential resentment will be the polarized views that exist in quarters of the production and, to a lesser extent, the processing industry. This is typical of the unsophisticated and uninformed dialogue that often occurs between entrenched parties.

As the challenge surrounding the need to change industry mindset has been observed at the industry level and at the commercial level, which are different for obvious reasons in terms of nature and specifics the process of suggesting ways to address these challenge has been divided into issues at the industry and commercial level.

Industry Level

Part of the problem at the industry level is the lack of coordination and effective interaction between industry organizations operating at the producer, processor, and retailer / foodservice levels; as well as between industry associations, provincial and federal governments, and regional municipalities. There is a lack of information sharing between industry level stakeholders surrounding the need for policies and legislation that can help facilitate industry growth and competitiveness. Polarization is an outcome of uninformed debate and came to prominence a number of times in the interviews, particularly in regards to marketing options and issues surrounding governance and industry structure.

Collating information to propose implementation, adoption and possible enhancements to grading standards and marketing channels/arrangements, acquiring insights into challenges and opportunities facing different levels of the industry, as well as proposing and encouraging research into production and marketing issues – perhaps by examining lessons learnt from success stories in lamb marketing and production, then dispersing that information throughout the industry, is one possible way of encouraging more effective discourse. This type of approach could assist in addressing the current polarized views and resulting negative reactions that appears to hinder industry development and prevent much of the current discourse from progressing beyond what was described as the current cottage industry / small producer perspective of the Canadian sheep industry.

Strategies surrounding the type of information that good be captured and shared with the wider industry to encourage adherence to grades and encourage investment in industry develop in the national collection of information on grades, yields, market delivery, marketing initiatives, and value. This would build upon work already undertaken in the United States and, in part, emulate responsibilities coordinated under the Meat & Wool New Zealand or Meat and Livestock Authority (Australia), and which provide significant benefits through facilitating communication and understanding throughout the sheep and beef industries. The process would facilitate

greater discourse between industry and government, thereby encouraging them to work together proactively over the long-term and assist lamb production to truly become a viable dedicated farming operation and create initiatives for moving the industry forward.

The Canadian Sheep Federation or another organization, perhaps established specifically for the purpose, would ideally act as a central agency to coordinate the interests of the producers, sheep marketing organizations, industry stakeholders and government. It would be responsible for devising and developing strategies and policies developed through reference and examination of such material in relation to current and potential operations. While accomplishing this would likely require investment in staff and resources, representative producers have said they would be prepared to consider contributing towards through paying higher check-off fees for the benefit of access to more effective industry support.

Commercial Level

Throughout the research, it became apparent that little information is commonly shared between businesses operating within individual supply/value chains. Government and industry can play a significant role in encouraging extensive information sharing to occur by providing evidence and lessons learnt from leading lamb marketing initiatives occurring around the world. A lack of information sharing between different levels of the value chain leads to greater risks for all and suboptimal investment of resources. Assisting and aiding lamb producers to develop the capabilities to better manage long-term business risk could be another role of any body formed to facilitate information sharing and debate across the Canadian lamb industry.

While information needs to be shared up and down the chain so that producers and processors can work collaboratively to produce a product that meets customers needs, it is a concept that cannot be mandated. However, it is also a concept that legislation and industry can scupper if they do not work proactively with industry and look to the future rather than basing decisions on the status quo. Also, a greater occurrence of coordinated value chains does not mean that traditional sales avenues cease to exist, which is a fear aired by a small though potentially vocal percentage of producers polled.

7.2.2 Challenge 2: Maintaining Consistent Supply

The lack of consistent supply has repeatedly been raised as a challenge facing the Canadian lamb industry. It was mentioned over and over during the consultations that the supply of lamb is seasonal, and it is hard to guarantee a year round supply. Part of this problem stems from the first challenge and the fact that the sheep industry is quite disorganized. However, there are also other factors to consider, such as the following:

- Costs of production – insights from the producer surveys indicate that the costs of production for producing sheep in Canada are relatively high compared to major competitors. This naturally discourages year-round production. Higher costs stem from factors such as the climate, where a cold winters require housing sheep and lamb. As well, sheep and lamb in Canada do not have year round access to pastures and require a protracted period on feed each year. While these same factors do not affect production in New Zealand and Australia to the same effect as in Canada, costs of production and/or supply could be reduced through research and innovation.
 - In addition, alternative marketing options exist. One such strategy is counter seasonal supply arrangements with NZ or Australia. This is a practice that is gaining ground in the UK and used, for instance, with great success by Livestock Marketing.
 - An important insight gained through the consultation process is the relative lack of awareness that Canadian producers have of the impact that seasonality has upon market share and fostering constructive relationships along the chain. A large

percentage of consumers do not purchase lamb on a seasonal basis, so having a distinct brand of consistent quality produce available on a year round basis could greatly benefit the Canadian lamb industry.

- Not living up to contracts – interviews with processors, and a number of producers, found that producers do not always deliver the amount of lamb and sheep that they agree to deliver. Even if they do deliver it is not always on the date that they say they will deliver. And some producers simply do not abide by pre-agreed sales arrangements. This behaviour was said to be partly exacerbated by the fact that there are no penalties for producers who failing to abide by their contracts. Producers were said to commonly hold onto their product in anticipation of receiving a higher price at a later date.
 - This is a chronic problem that reflective of short-term opportunistic behaviour. It needs to be changed if coordinated supply arrangements are to develop in Canada to the same extent as are occurring and which encourage investment in resources and capabilities along the chain.
- Access to medication – it has also been indicated that access to medication for sheep and lamb is a problem in Canada. In particular, there is a lack of medicine available to treat toxoplasmosis and pneumonia. This is a regulatory problem. Canada's regulatory framework is designed to keep industries competitive by promoting investments and increasing productivity, while protecting Canadians. However, in the agri-food sector in particular, a number of studies and detailed research argue that the regulatory situation and procedures are dragging down the competitiveness of the Canadian agri-food sector.

Expanding upon the three possible strategies mentioned as possible methods to address the above problems:

The challenge of high costs of production could be mitigated by more research and development into improved production techniques and supply/production arrangements through the chain. This education would be passed onto the producer through either publicly or corporate delivery methods. For example, more research on breeding stocks genetics could give producers insight into choosing the proper breeding stock suitable for a particular climate and meeting market needs, which could have a positive effect on reducing their costs of production while simultaneously increasing their level of returns.

As well, research into higher feed crop yields and feed conversion rates could be beneficial, particularly for western producers in the case of the former. Currently, Canada is falling behind in cost competitiveness in feed grains due to lack of improvement in yields compared to competitors. One reason for this situation results from the current regulatory system that does not contract for malt barley. Since this is the case, approximately 80% of barley is planted to malting barley varieties, however only 20% is selected. This results in the other 60% being moved into the feed market from its intended use in malt. However, barley planted for malt is low-yielding and therefore does not provide feed barley at the same cost effective rates as could otherwise be obtained. With varieties varying in the conversion efficiency, planting specific varieties of barley for use in sheep production regimes could further reduce production costs.

It also seems appropriate that the failure of producers' commitment to abide by delivering a guaranteed supply on a specified date could be addressed by penalizing them financially. Previously, the sheep industry tried to address this using a forward contract; though the lack of penalization for producers who do not abide by its rules was described as a major weakness by a number of producers and processors alike. Even though the Ontario forward contract system was said to be unsuccessful due to lack of interest and that penalties were not implemented for producers not delivering to contracted amounts, thereby undermining commitment, given the

responses received during this consultation process, the idea of a forward contract is worth revisiting.

More mature industries, such as live cattle, feeder cattle and lean hogs have forward contracts and there is a high volume of trading that occurs with these futures contracts. They did not occur overnight and many faced significant resistance before succeeding. Moreover, a forward contract would give lamb producers a better idea of what price they can expect at a date in the future and would give processors a better idea of what volume of lamb they can expect to receive at a certain date. This would allow them to plan more effectively, lessening business risk. With greater assurance of guaranteed supply, processors would presumably have better access to Canadian retailers. To be effective, it is important however, that these contracts be legally binding on both parties.

Lack of access to medication, as mentioned, is a regulatory issue. Unfortunately, this is a problem that is chronic throughout the entire agri-food sector, and is not likely to be changed in the near future. However, it is a problem that needs to be addressed by the federal government itself, and apart from lobbying, there is likely little that can be done. That said, the extent of the problem is great. With government often not appearing to afford the Canadian sheep industry the respect it deserves, developing a process of proactively communicating to government as a cross-industry body would raise their awareness of the extent to which this issue hinders industry development and the payoff of addressing it effectively.

While a market will always exist for year-round domestically produced lamb, year-round lamb production may not be a cost-effective method for supplying the multiple grocery store chains that offer the greatest market opportunities to the Canadian lamb industry. An option already adopted by producers in the UK (for instance) with great success are counter-seasonal production and marketing arrangements developed between UK and New Zealand lamb suppliers. Involving producers and processors working closely together and actively sharing information between each other and their respective international counterparts, they have been able to increase consumer purchasing patterns by double that of competing retailer avenues. An example of such a policy in practice is Livestock Marketing Limited (Gooch, unpublished; Food Chain Centre, 2004).

7.2.3 Challenge 3: Ensuring Consistent Quality

Retailers and food service personnel indicated during the consultation process that it is critical to have product exhibiting consistent quality for delivery to their consumers. Particularly multiple retailers and foodservice operators that need to adhere by strictly monitored practices in order to maintain cost structures and ensure food integrity throughout their operations. While quality at its broadest is a vague term, what respondents referred to was consistency in attributes such as cut size, taste, age of animal, shelf-life, presentation, packaging, colour, fat level, and customer service.

Comments by food service personnel indicated that New Zealand lamb is often utilized for catered events, even though many would prefer to use Canadian lamb over imports. This is because, in addition to guaranteed supply, portion sizes are almost always the same size, the colour of the meat is almost always the same, and there is a similar proportion of fat across the same cuts. An example given is that a lamb chop one consumer's plate must look similar to a lamb chop on the next consumer's plate. Similar issues and challenges exist for retailers. Consumers entertaining at home commonly desire identical sized portions. It is also important that this challenge be overcome if Canadian lamb is to become more commonly displayed in the meat counters of a wider array of retailers.

Part of the cause of this problem stems from the lack of information flowing down the value chain. Producers are often unaware of the importance of consistent size and overall quality to capture markets. Successfully solving the first challenge should see improvements in the overall quality with which intermediate customers (retailers and foodservice) perceive Canadian lamb compared to imported products and therefore feel comfortable committing to relying on it as a regular feature of their menus or display case.

Another part of this problem is inconsistent grading standards across the nation; which is particularly difficult given that lamb passes through an array of small processors en route to the end market. The *Canadian Lamb and Mutton Grading Standards* set out how lamb and mutton are to be graded. However, the processors that offer premiums/discounts based on an internal pricing grid often vary in terms of the precise measurement and composition classifications that they utilize. Performance by each lamb and overall supplier is also often communicated differently, adding further complexity to the process of encouraging the supply of consistent lamb and lamb products to the end market. As well, the current grading systems were suggested as not appear to be sufficiently adequate to reflect the carcass characteristics demanded by different markets for lamb. The current system was therefore described by a number of respondents as not allowing market demands to be properly fulfilled; which in turn impacts the financial value which can be captured from the marketplace.

A need therefore appears to exist to firstly create greater awareness of the current grading standards and their interpretation, particularly at the producer and processor level. Whether the industry seeks to make standards mandatory across all facilities is for the industry to decide. It would in all likelihood be beneficial to design a system that encourages producers to produce lamb and sheep based on market demand (i.e. smaller/heavier lamb and specific fat / muscle scores), with suggested bonuses for meeting certain specifications and in line with market requirements. To be effective, a system should encompass price penalties for failing to meet set objectives. While the implementation of specific grid systems will be dependent on processor capabilities and resources, providing examples of the financial benefits that have stemmed from such systems when applied overseas and in Canada could well encourage the proliferation of similar approaches across the Canadian lamb industry; thereby enhancing technical capabilities and consistency in all markets.

7.2.4 Challenge 4: Enhancing Consumer Awareness

The fourth challenge that needs to be addressed is lack of consumer awareness surrounding Canadian lamb. This point was especially evident in the consumer research. The survey done by Ipsos Reid found that consumers found lamb to not present the same value for money. This is at least partly due to consumers finding lamb inconvenient to prepare, that it is not viewed as an every day food, that it is not recognized as being a healthy meat, and the reputation of New Zealand as a brand clearly outshines Canadian lamb. This is despite the fact that consumers found Canadian lamb to be better tasting than New Zealand lamb and offering better value for money overall. Also almost three-quarters of consumers did not know from where the lamb they last consumed originated. A further issue in encouraging loyalty towards known domestically produced lamb is that lamb is said to be labeled 'Product of Canada' when it is actually New Zealand lamb imported as part or half carcasses that is broken down into sub-primal cuts.

The challenge of lack of awareness would be addressed through promotion and marketing and differentiation. However, doing so without conscious recognition of the source of lambs to a particular market could benefit importers more than the Canadian industry. To assist the process of adding value to lamb through carcass balancing techniques, attention must also be given towards encouraging consumption of lower value and processed lamb products. Mountain

States Lamb illustrates the benefits that this approach can have on increasing the overall consumption of lamb.

The industry consultations provided a variety of recommendations on how to best promote and market Canadian lamb. They include the following:

- Larger presence at retail stores.
- Cooking suggestions, i.e. recipe cards at supermarkets and featured recipes in magazines.
- Retail-ready food products.
- Promote the health benefits of lamb and the quality attributes of lamb as being a fresher, younger, more tender meat, with natural occurring Omega 3.
- Promote lamb products locally, as being locally grown
 - Research into consumer preference for locally grown products has indicated that consumers may be willing to pay a premium for locally grown food.
- Larger presence at trade shows.
- More features in magazines, such as Canadian Living

The consensus is that there needs to be increased advertising and promotion overall for Canadian lamb. Increase in promotional spend could be achieved through coordination between sheep marketing organizations, perhaps along with processor organizations when supporting generic industry promotion, and with retailers and/or foodservice operators when dealing with specific chains or marketing avenues. Looking at the benefits derived by other industries and even New Zealand lamb, one can clearly see why this type of coordination of activities can be effective in promoting products and why industry-level promotional activities undoubtedly pay dividends.

Consumer awareness of lamb products could also be increased by promoting the health benefits of lamb. In the consumer research, participants rated lamb as being about as healthy as beef and pork. Chicken rated as the healthiest meat. This is not surprising given the amount of promotion that has been expended to increasing consumer awareness of chicken is a healthy alternative to more traditional and more 'fatty' meats such as beef and pork. As a result, Canadians are eating more chicken. Making healthier food choices is becoming increasingly important to Canadian consumers, and the sheep industry could capitalize on this movement by promoting the healthy attributes of lamb and lamb products. Such an approach would also enable the industry to counter consumers' current perception that lamb is fatty, discouraging consumption. This fact ties in with the need to ensure consistent quality; every time a discerning potentially health conscious consumer experiences fatty lamb, they are reminded of why they consume it less readily than other meats that offer a more consistent eating experience.

Another strategy for increasing consumer awareness of Canadian lamb is differentiating it from New Zealand lamb and lamb products. New Zealand lamb has a strong reputation amongst consumers. Canadian lamb should be promoted as a different product from New Zealand lamb, different in subtlety of taste and freshness. While a number of producers suggested promoting Canadian as different to New Zealand lamb would bring commercial benefits, promoting it as too different could lessen the benefit that the Canadian lamb industry derives from the continuous availability that New Zealand lamb has on encouraging lamb consumption per se. Promoting Canadian lamb as superior because of a it exhibiting a subtler taste, its locality and freshness, smaller producers, health and the environment could be bundled into a series of tangible and intangible attributes that justify the need for consumers to pay a higher price.

7.2.5 Transaction Costs Discouraging Investment

Each of the described challenges is linked in some way. The success with which the overall challenges can be addressed may depend entirely on the approach adopted to grow the industry. Promoting Canadian lamb too fast too soon, and at the incorrect time of the year or through the wrong channels could alienate rather than encourage custom. One approach to describe particularly the short-term the linkages between the challenges is that challenge two (developing and maintaining consistent supply) and challenge three (achieving consistent quality) depends on the success of challenge one (developing a more organized industry). Over the long-term however, successfully overcoming the first three challenges depends on the success of challenge four.

Whatever happens, the true potential of the Canadian lamb industry is unlikely to be achieved until the industry is better informed, unified in its strategic direction, and aligned with market demands / expectations. Most importantly, greater sharing of information along the entire supply channel, along with insights into successful value chain initiatives and the benefits of cooperation is needed to encourage the adoption of business practices that can lead to a reduction in transaction costs. Significant transaction costs, identified as information asymmetry, negotiation and monitoring by Hobbs (1996) discourages wider investment and negatively impacts the competitiveness of an industry; not least as increases overall business risk. The Canadian lamb industry is no different. Unless addressed, and that does not mean turning the entire lamb industry into 'cookie cutters', the high transaction costs which are currently endemic to the Canadian lamb industry could well hinder development over the long-term; ultimately impacting all levels of the chain and the industry's future.

Once these challenges have been met, the Canadian lamb industry will be in a better position to take full advantage of the different market opportunities available to them. As implied through the consultations and later analysis of the results, lessening transaction cost would lead to the expectation that businesses would be prepared to invest more effectively and over the long-term in order to enhance their technical and business capabilities and overall resources. Current industry structures and disorganization appears to discourage rather than greatly encourage such investments to occur. Yet investments in technology, infrastructure, and training are imperative for the industry's development and long-term economic sustainability. The next section discusses the different areas of market opportunity that were identified through the literature review, the consumer research and the consultative interviews.

7.3 Opportunities Facing the Canadian Lamb Industry

This research identified a number of market opportunities that are available to the Canadian industry. In particular, these opportunities include: specialty and ethnic markets, retail-ready, value-added products, large supermarket chains, fine dining, casual dining, and corporate catering.

Specialty and Ethnic Markets

The potential clearly exists to expand further into specialty and ethnic markets in Canada, particularly in the large city centres of Toronto, Vancouver and Montreal. The 2001 Census found that there are almost 580,000 citizens in Canada of Muslim descent. Further to this, a project by Alberta Agriculture, Food and Rural Development (the *Halal Project*) found that there are currently insufficient Canadian lambs and goats to supply Muslim market for these meats. This therefore remains a huge opportunity that the Canadian lamb industry can capitalize on. This would, however, require more Halal certified slaughter facilities. It would also require

flexibility among producers and processors to produce the type of lamb that is being demand by Muslim consumers.

Besides Muslim consumers, there is also a potential for more lamb consumption amongst consumers of kosher foods. The 2001 Census shows that there are over 330,000 Jewish citizens in Canada. The majority (90%) of these consumers are located in the large city centres of Toronto, Vancouver, Montreal and Winnipeg. To illustrate the rate of growth in this market alone, the market for kosher meats in Canada is estimated to have increased from \$480 million in 2001 to \$575 million in 2002.

Organic meat is also a potential market opportunity for Canadian lamb, and which is not restricted solely to domestic markets. If produced on a large enough scale, export opportunities include the European Union and Japan. Today's consumers are becoming more conscious of what they eat and where it came from, and many consumers are choosing to eat organic food as a result. The current market for organic foods in Canada is estimated to range between \$750 million - \$1 billion (Drouin, 2003). Organic meat comprises only one percent of this total (Christopherson, 2001) and there represents a huge growth opportunity for meats of all kinds into the organic industry. That the opportunity exists is underlined by the consumer research and that lack of access to organic lamb was considered a weakness compared to other meats.

Retail-Ready and Value Added Products

Today's consumers spend less time preparing and cooking meals than in the past. They increasingly seek value-added products or ready to cook meals in order to reduce preparation and/or cooking time (Hughes, 1999; 2004). Value added products command a higher price for three main reasons. Firstly, they are costlier to prepare. Secondly, they offer greater value through saving consumers' time in preparation and/or offering greater consistency and a pleasurable eating experience. Thirdly, they can be packaged and presented in ways that appeal to a more discerning experience-hungry consumer. According to McDonald (2004) the chicken industry has been a leader/trend setter in value-adding meat. There are many value-added chicken products available that are heat and serve, including marinated breasts or breaded chicken fingers.

Other commodities such as beef and pork have been relatively slower to develop these types of products. One consequence of that is losing market share to the poultry industry. The lamb industry undoubtedly trails all three sectors. That opportunities exist for value-added and retail-ready lamb products is shown by the success of the Mountain States Lamb initiative; whose value added products are sold through grocers such as Publix. In addition to retail, foodservice operators are increasingly turning to value-added and pre-prepared or par-cooked menu times. Reasons for this include consistency across outlets, mitigating food safety issues, and limited access to skilled chefs and catering staff (Dover, 2004).

Taken from the consumer research, consumers aged 35 and over are the largest consumers of lamb. However, 73 percent of people consume lamb a maximum of six times per year; and many of those occasions are likely to be in restaurant; particularly if at least one member of the household is a non-lamb eater. Encouraging consumption at home will by far and away be the most effective way to increase lamb sales.

In today's busy world of double income households, convenience is a key factor in driving growth. Beyond ready-made meals, which undoubtedly are an opportunity for future growth, the research highlights that many consumers find lamb to be inconvenient as they do not know how

to prepare it, or ways to prepare it simply and in a variety of ways to expand its appeal to the wider household. Value-added, retail-ready, ready-to-eat, or par-prepared/speed scratch food items are in increasing demand for these very reasons and should not be ignored by the lamb industry.

Results from the consultative interviews found that the industry itself thinks that there is a large market for products such as pre-marinated lamb and pre-made lamb kebobs. As well, adding value to the product, such as vacuum packing to provide flexibility and prolonging shelf-life is seen as a key strategy to gain more market access. They are also areas in which New Zealand suppliers in particular have excelled.

To be effective, such a strategy would likely be best executed in conjunction with in-store promotions, educating the consumer through media articles and editorials, offering cooking classes at retail outlets or cookery schools, and featuring lamb more regularly as part of the meat display. Sponsoring shows on cooking channels, as well as celebrity chefs, has also proven a successful and cost-effective way to promote products.

Supermarket Chains

There remains a large opportunity to expand Canadian lamb products into supermarkets. Our research shows that 80 percent of lamb sales nationally occur at retail. The majority of this occurs through grocery stores where price is not the single biggest driver of choice. To access what is potentially an immense untapped market for Canadian lamb, it is critical that the retail industry buy into, support and fully participate in any promotional effort for lamb. Selling for higher prices and often working on margins rather than fixed markups, suitable retailers would undoubtedly be interested in merchandizing Canadian lamb as part of a higher profile meal solution. In fact, as already mentioned, a number of large retailers have already shown distinct interest in stocking a dedicated line of Canadian lamb.

Critical to establishing a share of this channel is having consistent access to consistent supplies of high quality Canadian lamb and customer support services. The counter-seasonal option for supplying consistent lamb products on a year-round basis would work particularly well for a private label scheme. Consistently high quality lamb meeting strictly monitored specifications, whether supplied by importers or Canadian suppliers, would be sold under the same label; thereby encouraging repeat purchase by satisfied consumers on a year-round basis.

Fine Dining and Catering

Consumer research shows that the largest consumers of lamb inhabit the 60-100K income range. This is partly because once incomes reach 50k and over, consumers tend to increase the regularity of out-of-home consumption of all food types. It is not limited to meat. Foodservice is a delivery avenue through which to target this bracket of income earners. However, this comes with a proviso. Many people who eat lamb in the restaurant do so because having non-lamb eaters in the household discourages, or perhaps even prevents, home consumption. While fine dining, and corporate catering too given responses from the industry consultations, is therefore a viable market for the Canadian lamb industry to target, it will never reach the scale of opportunity offered by retail stores.

In addition, large foodservice accounts can only be accessed through distributors who have similar needs (as well as reasons for those needs) to multiple retailers. They can however offer a significant opportunity through whom to develop and supply value-added products

manufactured from lower value cuts. Foodservice would likely therefore be a valuable aspect of a well-coordinated marketing campaign to maintain carcass value behind premium cuts. Economic factors to consider when looking at increasing lamb production and processing are featured in the next stage of the report.

7.4 Looking Forward

The following table summarizes relevant issues for the Canadian lamb industry to consider as opportunities to increase consumption / capture new markets. Suggestions are also given for how each potential marketing initiative, along with a suggestion for how this might be achieved and likely outcomes.

Supply Chain Member	Market Strategy	Critical to Success / Possible Outcome
Producer		
Consumer Survey	Promote lamb as “ideal for anytime”, related to current consumption trends	Extensive year-round domestic production and/or partnerships to increase year round supply. Resulting in consistent volumes for processors - encouraging greater investment in infrastructure.
	With 80% of lamb purchased through retail, establish Canadian lamb ‘brand’	Produce lamb to spec for the retail market through encouraging expansion by producers and development of closely-aligned market initiative.
	Lamb eaters tend to be older and more affluent than non lamb eaters	Design feeding programs to maximize healthy aspects of lamb and promote as a functional food (CLA’s – anti cancer, omega 3’s, Vitamin E, etc.)
	Canadian lamb highest of all in consumer perception of taste & quality	Build on quality by streamlining genetics and feeding to produce consistent high quality lamb in a cost effective manner
	Availability Issue – Consumers will eat more if it available	Increase investment into researching cost effective out of season breeding systems and ideal facilities for housing lambs/sheep in intensive situation
Processor survey	67% of respondents indicated that supply shortages was an issue – particularly spring	Investigate business models that would result in greater coordination along the chain, perhaps with seasonal price variances to encourage producers to invest in out of season lamb production.
	1/3 of processors do not purchase lamb on a quality grid	Provide education and awareness materials for producers and processors on the need to understand grids and effects of exchanging performance information to increase management capability and profitability of both parties. Resulting in greater understanding of issues along the chain.
	No comprehensive program of lamb production	Address supply issues through developing production formulas for on farm improvements and legislation to allow expansion of facilities.
	Canadian Lamb has higher input costs and prices	Determine the reality of Canadian versus international cost of production and efficiency through benchmarking to identify opportunities to decrease costs
Retail/	NZ supply more consistent than	Need to provide product on more regular basis and

Foodservice/ Fine Dining/ Catering survey	Canadian supply	avoid supply disruptions through investigating production methods to increase year round supply and producing value-added products with longer shelf-life.
	Sunterra open model with supply chain viewed as a positive – also pay on quality	Understand role of grids to avoid commodity pricing and increase producer returns through targeting production according to specific grids. Work with industry to establish grid.
	Canadian lamb industry not fully developed – viewed more as a sideline	Delineate between small part time production that is able to target specific finished lamb markets and larger flocks of commercially viable dedicated production. Encourage smaller producers to cooperate in order to secure more viable markets and consistently higher returns. Emphasize potential profitability of lamb production
	Largest demand in fall and spring	Consider out of season breeding and 5-3, STAR, (etc.) systems to stagger lambing and encourage year round supply according to market specs.

7.5 Sustaining Economic Viability

This section of the report analyses the impact of an increase in Canadian lamb cuts (production) on the price of the cuts, and through the price changes, the overall value of a lamb carcass (to a processor). Comments from the producer survey indicated that the amount of premium lamb cuts, such as cuts from the loin, could be increased significantly without having an impact on the price of the cuts to the consumer³. This section considers the implications of this.

To interpret the impact of an increase in volumes sold, the following is recognized. First, even if premium cuts can be increased in volume without the price being affected, the other cuts from the carcass that increase in volume as a result are apt to decrease in price. In that regard, there are three main sections of a carcass that are analyzed – the lamb front, the leg and the loin. The residuals, such as hides, liver plugs, heads (burnt), and feet are also considered at a set price per carcass. For the purpose of this analysis, loins are considered to contain the premium cuts, while the other cuts are less preferred.

Secondly, elasticity for each of the lamb sections influences the extent to which the price must decrease as increased volumes are sold. By assumption, the price of lamb loins is assumed not to change given an increase in volume. Thus, the own-price elasticity of demand for loins is 0. The elasticity for the lamb fronts and lamb legs were varied and in particular, three different elasticities were chosen: -1.5, -1 and -0.5. These elasticity values were based on the observation that the lamb industry has not matured to the extent of other meats such as beef and pork, and that as a result increased volumes would not generate as significant a price change⁴.

Finally, a number of assumptions on the technical aspects of lamb slaughter were made. These are the following:

³ One respondent indicated that volumes sold could increase six-fold with no change in price

⁴ Elasticities for pork or beef are more commonly thought of in the range of -.2 to -.5

- The value of a carcass at the processor end consists of the lamb loin, lamb front, lamb legs and the residuals.
- The average warm live weight is estimated at 100 lbs; the average lamb dressed weight is 48% of the average warm live weight. This is consistent with statistics from the Annual Livestock and Meat Report, which is produced by Agriculture and Agri-Food Canada.
- The current slaughter levels are based on the 2005 slaughter, 582,085 head, as reported by Statistics Canada.
- The proportion of carcass weight that goes to each of the sections – front, loin and leg – was obtained from industry sources
 - 34% of the lamb carcass is comprised of legs; 32% of the carcass is the front; and 34% is lamb loin.

This analysis considers three different scenarios of volume increases:

- Additional sales of 20% more loins, without a loin price effect
- Additional sales of 50% more loins, without a loin price effect
- Additional sales of 70% more loins, without a loin price effect

In each of these scenarios, the price of lamb loins are kept steady, and the price of the lamb legs and the lamb fronts are allowed to change, based on the assumed elasticity of -1.5, -1 or -0.5. The change in price for each the loin leg and the loin front was calculated as such:

$$\Delta \text{Price} = (\Delta \text{Quantity} * \text{Original Price}) / (\text{Original Quantity} * \text{Elasticity of Demand})$$

The change in quantity is the difference between the original amount of product sold (lamb legs or fronts) and the amount that would be produced given the increased sale of loins. The current quantity is based on 2005 slaughter. The 2005 price is based on industry sources, and the elasticity of demand is one of the three numbers assumed in this analysis, either -1.5, -1 or -0.5. In each case, the total revenue generated is considered.

Scenario One

Scenario One assumes an increase in slaughter of 20%, so that the volume of lamb loins increase from 9.5 million pounds to 11.4 millions pounds. This requires an increase in slaughter from 582,085 head 698,502 head. This effectively increases the volume of front and legs available as follows:

- Lamb legs increase from 9.6 million pounds to 11.5 million pounds
- Lamb fronts increase from 8.7 million pounds to 10.6 million pounds

An increase of this magnitude will have an effect on the price, and thus the overall revenue of the lamb carcass. It is assumed that the lamb loins have a price elasticity of demand of zero, therefore, the price does not change. The prices for lamb fronts and lamb legs both decrease, and the magnitude of the decrease depends on the elasticity assumed. The table below outlines the original price, quantity and total industry revenue for the lamb cuts versus the new prices, quantities and revenues, under the three different elasticities.

Table: Scenario One (Increase in Volume Marketed by 20%) Results

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	Price (\$/lb)		Quantity (lbs)		Revenue (\$)	
	Base	Scenario 1	Base	Scenario 1	Base	Scenario 1
Elasticity = -1.5						
Lamb Leg	4.80	4.16	9,600,211	11,520,254	46,081,015	47,924,256
Lamb Front	2.99	2.59	8,862,593	10,635,112	26,499,154	27,559,120
Lamb Loin	3.54	3.54	9,477,275	11,372,730	33,549,554	40,259,465
By-product*	8.50	8.50	-	-	4,947,723	5,937,267
Total Revenue					111,077,446	121,680,108
Elasticity = -1						
Lamb Leg	4.80	3.84	9,600,211	11,520,254	46,081,015	44,237,775
Lamb Front	2.99	2.39	8,862,593	10,635,112	26,499,154	25,439,188
Lamb Loin	3.54	3.54	9,477,275	11,372,730	33,549,554	40,259,465
By-product*	8.50	8.50	-	-	4,947,723	5,937,267
Total Revenue					111,077,446	115,873,694
Elasticity = -0.5						
Lamb Leg	4.80	2.88	9,600,211	11,520,254	46,081,015	33,178,331
Lamb Front	2.99	1.79	8,862,593	10,635,112	26,499,154	19,079,391
Lamb Loin	3.54	3.54	9,477,275	11,372,730	33,549,554	40,259,465
By-product*	8.50	8.50	-	-	4,947,723	5,937,267
Total Revenue					111,077,446	98,454,454

*By-products are calculated on a per carcass basis, so \$8.50 (the amount generated in by-products per carcass) is multiplied by the number of lamb slaughtered to get the revenue.

The table shows that the prices for fronts and legs decrease for each of the elasticities, in comparison to their original prices, but that the total volume sold increases. The elasticity of -0.5 has the greatest impact in decreasing prices, and the elasticity of -1.5 has the least impact. Given an elasticity of -1.5, industry revenue increases by \$10.6 million. Under an elasticity of -1 industry revenue increases by just under \$5 million, and with an elasticity of -.5 the effect on the industry is to decrease overall revenue by \$12.6 million.

Scenario Two

Scenario Two assumes an increase in loin volumes sold of 50 percent. This means that slaughter increases from 582,085 to 873,128 head. The table below outlines the results from Scenario Two.

Table: Scenario Two (Increase in Volume Marketed by 50%) Results

	Price (\$/lb)		Quantity (lbs)		Revenue (\$)	
	Base	Scenario 2	Scenario 2	Scenario 1	Scenario 2	Scenario 1
Elasticity = -1.5						
Lamb Leg	4.80	3.20	9,600,211	14,400,317	46,081,015	46,081,015
Lamb Front	2.99	1.99	8,862,593	13,293,890	26,499,154	26,499,154
Lamb Loin	3.54	3.54	9,477,275	14,215,913	33,549,554	50,324,331
By-product*	8.50	8.50	-	-	4,947,723	7,421,584
Total Revenue					111,077,446	130,326,084
Elasticity = -1						
Lamb Leg	4.80	2.40	9,600,211	14,400,317	46,081,015	34,560,761
Lamb Front	2.99	1.50	8,862,593	13,293,890	26,499,154	19,874,366
Lamb Loin	3.54	3.54	9,477,275	14,215,913	33,549,554	50,324,331
By-product*	8.50	8.50	-	-	4,947,723	7,421,584
Total Revenue					111,077,446	112,181,042
Elasticity = -0.5						
Lamb Leg	4.80	-	9,600,211	14,400,317	46,081,015	-
Lamb Front	2.99	-	8,862,593	13,293,890	26,499,154	-
Lamb Loin	3.54	3.54	9,477,275	14,215,913	33,549,554	50,324,331
By-product*	8.50	8.50	-	-	4,947,723	7,421,584
Total Revenue					111,077,446	57,745,915

*By-products are calculated on a per carcass basis, so \$8.50 (the amount generated in by-products per carcass) is multiplied by the number of lamb slaughtered to get the revenue.

Increasing the volume by 50 percent has a greater impact on the prices than increasing slaughter by 20 percent. Total revenue changes range from an increase of \$19 million under an elasticity of -1.5, to a loss in revenue of \$53 million under the elasticity at -.5 as leg and front values are driven to zero.

Scenario Three

Scenario Three assumes loin volumes increase by 70 percent. This has the effect of increasing slaughter from 582,085 to 989,545 head. The following table outlines the results from Scenario Three.

Table: Scenario Three (Increase Slaughter by 70%) Results

	Price (\$/lb)		Quantity (lbs)		Revenue (\$)	
	Base	Scenario 3	Base	Scenario 3	Base	Scenario 3
Elasticity = -1.5						
Lamb Leg	4.80	2.56	9,600,211	16,320,360	46,081,015	41,780,120
Lamb Front	2.99	1.59	8,862,593	15,066,409	26,499,154	24,025,900
Lamb Loin	3.54	3.54	9,477,275	16,111,368	33,549,554	57,034,242
By-product*	8.50	8.50	-	-	4,947,723	8,411,128
Total Revenue					111,077,446	131,251,390
Elasticity = -1						
Lamb Leg	4.80	1.44	9,600,211	16,320,360	46,081,015	23,501,318
Lamb Front	2.99	0.90	8,862,593	15,066,409	26,499,154	13,514,569
Lamb Loin	3.54	3.54	9,477,275	16,111,368	33,549,554	57,034,242
By-product*	8.50	8.50	-	-	4,947,723	8,411,128
Total Revenue					111,077,446	102,461,256
Elasticity = -0.5						
Lamb Leg	4.80	-	9,600,211	16,320,360	46,081,015	-
Lamb Front	2.99	-	8,862,593	15,066,409	26,499,154	-
Lamb Loin	3.54	3.54	9,477,275	16,111,368	33,549,554	57,034,242
By-product*	8.50	8.50	-	-	4,947,723	8,411,128
Total Revenue					111,077,446	65,445,370

*By-products are calculated on a per carcass basis, so \$8.50 (the amount generated in by-products per carcass) is multiplied by the number of lamb slaughtered to get the revenue.

The table shows that with an increase in slaughter of 70 percent, there is a potential to increase total revenue by 20.2 million under an elasticity of -1.5. However, if either an elasticity of -1 or -0.5 is used, then revenue actually decreases when compared to the base case. There is a significantly greater negative impact on the price of fronts and legs in Scenario Three when compared to the other two scenarios and the base case. Once again, the prices for fronts and legs are driven to zero under an elasticity of -0.5.

Overall Results

This analysis has shown that the price elasticity is the key determinant in determining the total revenue of lamb at the processing stage, for a given increase in loin volumes sold. These impacts are summarized in the following table.

Table: Impacts on Total Revenue, by Scenario and Assumed Elasticity

Scenario/Elasticity	-1.5 \$ Change		-1 \$ Change		-0.5 \$ Change	
Base	111,077,446		111,077,446		111,077,446	
Scenario 1	121,680,108	10,602,662	115,873,694	4,796,249	98,454,454	(12,622,992)
Scenario 2	130,326,084	19,248,638	112,181,042	1,103,596	57,745,915	(53,331,531)
Scenario 3	131,251,390	20,173,944	102,461,256	(8,616,189)	65,445,370	(45,632,076)

Scenario One had the most modest impact on total revenues of the three revenues. It had the least increase in total revenue (at an elasticity of -1.5) and the smallest negative impact on revenue loss (at an elasticity of -0.5). Scenario Three shows the greatest potential for revenue increase, if an elasticity of -1.5 is assumed, and also the greatest potential for revenue loss, if an elasticity of -0.5 is used.

Clearly, the impact of volume increases vary according to the level of elasticity assumed. Because fresh lamb is very much a developing market, the specific magnitude of which elasticity applies is uncertain. However, given that it is a developing market, one would suppose that the elasticities of -1 or -1.5 would be more likely than -.5. In fact, elasticity greater in absolute terms or greater than -1.5 is entirely possible. One way to interpret this is that the elasticity of -1 is “conservative”, the elasticity of -1.5 is “optimistic”, and that the elasticity of -.5 is “pessimistic”.

Regardless of which set of elasticities is used, the clear implication is that if nothing is done to market the non-premium cuts, there is a significant drag on revenue as the market is expanded. Stated differently, it would be worthwhile devoting significant resources to developing improved markets for the less desired cuts as part of a strategy for increased marketings of premium cuts for which no price change results as volume is increased.

Finally, this analysis has portrayed the loin as the source of the most desired cuts that would not change in value as volume is increased, and that fronts and legs are “lesser” cuts. This is certainly an oversimplification as there are highly valued cuts obtained from fronts and legs (especially the leg). This, the results are likely to err on the conservative side.

In terms of utilizing lesser value cuts, the analysis implies that the ability to produce value-added products and cuts will be integral to maintaining value across the entire carcass. This would require a coordinated marketing approach to work most effectively in the marketplace by minimizing wastage, missed value creation opportunities and, as mentioned earlier, transaction costs.

8.0 Summary, Conclusions, and Recommendations

Section 8.0 of the study encompasses Phase 4 of the project. That is to summarize the main findings of the research and provide the Canadian Sheep Federation with recommendations for strategic initiatives that can lead to growth in the size and overall value of the market for Canadian lamb. The recommendations will be laid with arguments to justify their proposed purpose and role for developing a sustainable and globally-competitive Canadian lamb industry.

8.1 Summary

The purpose of this project was to conduct a market opportunity analysis for Canadian produced lamb and identify industry readiness for capturing those opportunities in a sustainable and profitable manner. Then develop recommendations for how the Canadian lamb industry can grow in accordance with market demands and retain competitiveness increasingly capable international lamb suppliers; particularly Australia and New Zealand. The UK, while not an exporter of lamb to Canada, has been expending considerable effort to enhance its lamb production and marketing capabilities. Arguably sandwiched in terms of commercial capability and supply chain efficiencies between New Zealand and Canada, aspects of its ongoing development process and the resulting lessons learnt, have been used as a reference point for identifying avenues and practices that the Canadian lamb industry could utilize to enhance its own competitiveness.

The analysis traversed stakeholders operating at all levels of the Canadian lamb industry. It began by identifying overall consumer satisfaction toward Canadian lamb. This included an exploration of drivers of choice for lamb *per se*; the comparative importance of specific consumer purchasing channels to the Canadian lamb industry; and quality factors that stem from current industry practices and negatively impact consumer sentiments towards Canadian lamb. Also sought from insights into consumer perceptions were opportunities that appear to lend themselves to methods that the Canadian lamb industry can utilize to engender additional loyalty, and therefore commercial strength, in the overall marketplace. Insights were also gained into consumers' perceptions for how Canadian lamb stacks up against its major international competitors: Australia and New Zealand.

Armed with extensive information from the consumer research and literature search surrounding developments and capabilities of New Zealand, Australian, and US lamb producers compared to operations, capabilities and opportunities identified in the Canadian lamb industry, a series of consultations were conducted to ascertain commercial industry stakeholders' perceptions towards the quality, supply and marketing arrangements of Canadian lamb. This included identifying significant challenges that the Canadian lamb industry would face if seeking to exploit commercial opportunities identified in the first part of the research. Factors investigated included known market opportunities, issues that directly or indirectly impact domestic supply/marketing arrangements for Canadian lamb, and the impact that current marketing practices may have upon the long-term commercial viability of the Canadian lamb industry.

To attain information that possessed the greatest value through providing commercial insights and anecdotes that could be acted upon by producers and the wider Canadian lamb industry for commercial gain, a high level process that reflected value chain mapping methods was used to gather insights and perspectives. The process began by consulting with retailers and foodservice operators before moving up the chain to secondary then primary processors. The process ended with a series of consultations with suggested primary producers located across Canada. The process highlighted harmony as well as discord that existed between the different

levels of the chain, and whether the extent and character of the harmony or discord appeared specific to a certain type of operation or industry scenario. Particular effort was invested in understanding the root cause and effect of any discord that appeared to exist across most (or an entire level) of industry. Not least because of possible commercial ramifications.

To provide a nationally representative sample of the views of differing delivery avenues and market expectations, respondents were chosen from across the country. Greatest emphasis was given to consulting with strategically important functions whose competitiveness relies upon reacting to market demands. These were the predominant supply or value chain structures that the initial research pointed to as offering the most significant market opportunities for Canadian lamb, including retail, foodservice, secondary processors, primary processors, and primary producers. For the purpose of this study, auction, transport and veterinary systems (for example) were considered support rather than primary activities and therefore not consulted as part of this study.

8.2 Conclusions

Our research has found that, particularly in terms of market opportunities, the Canadian lamb industry enjoys a unique situation. Far from being a mature market, the potential for growth is, quite literally, immense. That said, this scenario is a double edged sword.

In percentage terms, lamb clearly appears to have greater opportunity for growth than any other red meat sector; particularly in terms of what could be achieved in the next decade. The extent of market opportunities and the accuracy of the findings were underlined by the almost uncanny resemblance between results attained from the consumer and retailer / foodservice research. By and large, they clearly understand their consumer market. This finding alone justifies the need for the Canadian lamb industry to find ways to work with retailers and foodservice to develop commercially sustainable business models for supplying Canadian lamb to the consumer market. Even without the addition of any extensive marketing or promotion of Canadian lamb, a number of respondents estimated that the overall opportunity for lamb is double the current scale of production. As seen from the economic modeling, achieving this on a financially viable footing given current costs of production will require investment in value-added products and marketing/supply initiatives.

The level of challenges that exist will likely lead to the Canadian lamb industry experiencing growing pains as it wrestles with securing market opportunities and reacting to the increasing competitiveness showed by international lamb suppliers. Whatever strategies are adopted, we believe that growth pains will undoubtedly be felt. Analyzing the results of industry consultations, we believe that there are ten distinct features that characterize the current Canadian lamb industry and which we feel will create discomfort as the industry grapples with the issue of achieving and then maintaining international competitiveness. They are as follows:

8.2.1 Trading Environment: Production

First: the current domestic lamb industry is relatively healthy because of the range of current markets, the range of lamb demanded by the different markets, and the general imbalance between supply and demand. The result is a trading environment where almost all the lamb produced manages to secure a reasonably profitable home, and does so without much difficulty. This translates into producers, particularly smaller producers, having little need to target specific markets and produce strategically accordingly to specific market demands.

All too often a combination of differing and often unfocused management practices, including the production of breeds chosen because they encompass desirable meat and maternal characteristics rather than specific value-creation qualities, results in heterogeneous lambs in insufficient volume to select a consistent supply of carcasses for a specific market on a cost effective basis. This situation will need to be addressed at some level before the wider Canadian lamb industry is able to secure the market opportunities that undoubtedly exist.

8.2.2 Producer Environment: Processors

Second: a not too dissimilar situation exists for many processors. Particularly for smaller processors or those for who lamb is a sideline, not the majority, of their production. Given the current level of demand across an array of varying markets and an auction system that provides processors with risk management options that are unavailable to producers, processors are able to find a reasonably profitable home for lamb without much difficulty.

The level of demand means that there is limited need to abide by specific grading standards or seek opportunities to reduce transaction costs through achieving high levels of consistency. Neither is there a pressing need for many processors to develop the capabilities necessary to prepare individual cuts for delivery to chain store or foodservice distribution centres. As markets change at differing rates, this will scenario will change as processors are forced into carcass balance and strategic marketing practices to remain economically viable.

8.2.3 Flexibility of Sales Channels

Third: the majority of Canadian lamb is sold through small to medium retailers and foodservice outlets. Such operations tend to be more flexible in the meat they are able handle. They are able to modify their operations quicker than larger multiples if any irregularity occurs in meat specification and, particularly in the case of butchers or small grocers / foodservice outlets that purchase through a butcher, have access to people possessing the skills required to handle meat that fluctuates in size, fat cover or other physical attributes.

Large multiples that sell the majority of lamb to consumers across Canada do not have this luxury. They require a stable supply of consistent quality products across all categories, not just lamb. Producing a consistent supply of high quality lamb on a year-round basis is imperative for supplying the large national grocery accounts that will enable Canadian producers to considerably expand market share. This does not mean that alternative marketing channels supplied by Canadian producers will cease to exist. In fact the opposite could be the case. Supplying Canadian lamb through large grocery avenues and, in doing so accessing a larger consumer base, could grow the overall market for Canadian lamb as a whole.

8.2.4 Trading Relationships

Fourthly: our research shows that superior trading relationships tend to exist where producers, processors and retailers are geographically located in close vicinity to each other. Information is exchanged on a relatively informal basis and personal communication is paramount to the development of long-term relationships. While there are exceptions to this rule, the overriding trend is to work with people your own perceived size: small to medium sized producers working with smaller processors in an attempt to mitigate issues surrounding power-based relationships.

Extracting themselves from the transactional trading relationships that are typified by the power-based approach to business will require lamb suppliers to develop the constructive relationships with customers that enable access to the kind of strategic market-specific information that, along with technical and business capabilities, will enable them to become a strategic partner within a long-term marketing initiative. With that development, the necessity of operating within a specific

geographic location to retain close business linkages will diminish; as will the competitiveness of industry players who currently view this as their primary strategic weapon.

8.2.5 Access to Information

Fifth: a lack of information exists for producers wishing to expand the size and intensity of their operations. Larger producers often look to countries such as Australia, New Zealand and the United Kingdom for guidance on even basic building, flock, and general management systems or risk management options. However, with different environmental conditions, genetics, medical supplies, and building codes than any of those countries, they are of limited value to Canadian lamb producers.

Moreover, local and regional planners often establish more onerous regulations for lamb versus beef or pork production because they themselves possess a lack of information on the practical requirements of a commercial lamb operation. A crucial role of industry associations will be to support and sponsor the creation of knowledge necessary to developing sustainable commercial lamb production operations; then share that information with influential parties to expand the business opportunities for progressive lamb producers.

8.2.6 Culture

Sixth: the culture of the Canadian sheep industry, particularly at the industry / association level is what can perhaps best be described as egalitarian. Producers, whether they are lifestyle farmers with a dozen sheep or progressively manage large commercially viable intensive flocks, have similar influence upon the association's practices and investment of precious resources. While commendable from a social perspective, the danger of this approach is that all too easily hampers associations from providing progressive producers with the support required to take full advantage of market opportunities.

Markets will continue to exist in some form for smaller producers and they should undoubtedly be able to access generic industry information the same as anyone else. However, it will clearly be the middle to large sized flocks which enable the Canadian lamb industry to capture the most benefit from the significant market opportunities identified in this report. Changing the culture and philosophy of associations so that they reflect commercial realities and are in a position to encourage wider investment and growth across the industry will not be an easy task. However it is necessary if the industry is to move forward in a timely fashion and attain long-term international competitiveness on a scale that it does not currently possess.

8.2.7 Perspectives

Seventh: by and large, governments and service providers do not view or value the Canadian lamb industry for what it could become. They tend to have fixed perceptions on the place that the Canadian sheep industry holds within the overall agricultural and agri-food sector. This is partly due to the reasons stated above. It leads to a lack of vision and passion for how the industry can be encouraged to move forward by adopting techniques and practices that would enable it to achieve its true economic potential. Depriving the industry of the encouragement it deserves and the support it requires to develop the capabilities and resources necessary to become the economic force that it could, will result in it remaining a fragmented industry for longer than would otherwise be the case. The situation is made worse by governments and industry associations largely looking to protect their own 'backyard' rather than seeking to identify the benefits that can be achieved by working together.

An excellent model of what can be achieved by different levels of industry and government working together to create the environment and capabilities required to achieve commercially

sustainable growth and international competitiveness is Meat and Wool New Zealand. Primarily a farmer-focused organization, MWNZ works closely with processors, exporters and government to generate a common vision; then develop and implement legislation and practices that enable producers to benefit from its facilitating closer bonds and understanding between industry stakeholders. The Australian Sheep Cooperative Research Centre is another example of industry and government working together for long-term commercially-minded common causes.

8.2.8 Basis of Industry Decisions

Eighth: decisions that could otherwise provide strategically important benefits along the entire chain appear to have been made for reactive, rather than proactive and commercially minded reasons surrounding value-creation and capture. One example is mandatory ear-tags. Though consultations did not seek to gain insights into traceability policies, over 25 percent of producers overall (and over 60 percent of producers raising over 1,000 lambs per year for slaughter) stated of their own accord that the current ear tag system provides no economic benefit to them on a daily basis: yet clearly could with a number of relatively straightforward modifications.

Producers stated that the ability to track and trace the origin of lambs that perish in transit or do not perform as intended due to health or flock management/breed related reasons would enable them to adjust their purchasing arrangements and improve their profitability. A number of producers also stated that they are not currently able to access the information on individual carcass performance that would enable them to continually improve flock management practices to reflect market demands and, in turn increase their competitiveness. The tools exist to achieve both of the above outcomes, and are processes already utilized for commercial gain by a number of successful overseas lamb marketing initiatives. The same, as well as other commercially-minded business initiatives, will need to occur in Canada for the industry to achieve sustained international competitiveness.

8.2.9 Industry Structure

Ninth, consultations with industry stakeholders illustrated the fragmented structure of the Canadian lamb industry. While the level of fragmentation is perhaps not surprising given the number of smaller producers, the range of differing markets and marketing opportunities, as well as the volunteer-based structure that typifies many sheep industry organizations, the nature of the current fragmentation undoubtedly results in tremendous transaction costs. The current imbalance in supply and demand across a range of markets means that industry can absorb these transaction costs while continuing to return profitable margins to producers, processors and other members of the industry.

This situation will not exist indefinitely and, as margins become tighter, the fragmentation issue will need to be addressed in order for stakeholders to retain a viable level of profitability. The only way that this can conceivably be achieved is by encouraging greater coordination between commercial players in order to reduce costs associated with poor access to information, continually negotiating on price and supply in an adversarial manner, and monitoring quality while disposing of out of spec products (Hobbs, 1996; Gooch, unpublished).

8.2.10 Polarized Views

Tenth, particularly at the producer level, polarized viewpoints appear to be the norm rather than the exception. Compared to perspectives provided by consultations with participants operating at other levels of the Canadian lamb industry, producer viewpoints are certainly more rigid in their perspective of what can, should, must and definitely cannot occur or be experienced for the industry to move forward and capture market opportunities.

In any socially influenced environment, the existence of polarized viewpoints tends to stem from a lack of informed debate and knowledge surrounding a particular topic. The lack of informative knowledge leads to conjecture, misconceptions and, eventually, raised defensive or negative emotions (Ivancevich, Olekalns & Matteson, 1997). In a commercial situation, polarized viewpoints are also indicative of a lack understanding of drivers surrounding another's behaviour or the ability to listen / communicate effectively (Hind, 2005). Polarized viewpoints could also reflect the relatively unsophisticated state of the Canadian sheep and illustrate the lack of vertically-directed communication that occurs across the industry as a whole.

8.3 Trading Environment

The ten features of the current Canadian lamb industry described above are synonymous with a relatively unsophisticated, even uncompetitive, business environment. Businesses, whether in production, processing, retail or foodservice will not adopt innovative business practices unless commercial pressures rise to the point where they have no choice but innovate. Historically, with a lack of consistent supply of domestic lamb and the need to serve an increasingly discerning consumer market to retain market share, retailers have been forced to react to growing demand for lamb in the best and most profitable way possible.

Given ready access to consistent supplies of increasingly high quality imported product and that volumes of lamb handled have not matched that of beef, chicken or pork, larger retailers have not surprisingly sought to in-part address this challenge by sourcing lamb from overseas. The availability of alternative supplies at retail and, more lately, foodservice operations, along with the continuation of alternative markets for Canadian produced lamb, has meant that until 2003 Canadian suppliers have not been forced to innovate significantly to retain profitable markets. This also meant however that the industry has remained at a relatively unsophisticated level of development in terms of production and marketing practices. Particularly when compared to (for instance) the Canadian pork and chicken industries, and the New Zealand lamb industry.

While aspects of the domestic lamb industry has focused on developing processes for capturing market opportunities available through supplying national grocery channels, much of the industry has focused on ethnic markets and western European type consumers through channels indicative of smaller more flexible retail and foodservice operations. These have provided an easier route for producers to follow and require less innovation to occur in terms of marketing or production protocols. In particular however, the supply and demand model, where Canadian lamb producers are able to access ethnic markets relatively unimpeded by competition from international suppliers is likely to change significantly in coming years. With ethnic markets, such as Halal, growing due to immigration and general population trends, they will become of increasing interest to importers. Particularly the Australians, who are aggressively expanding their lamb production capabilities and have some years experience of supplying domestic ethnic markets.

The likelihood is therefore that the market that many producers currently consider something of a golden opportunity for the Canadian lamb industry will itself become subjected to many of the same competitive pressures as the larger grocery accounts. Successful producers will increasingly be those that strategically manage their operations and consciously become part of a sophisticated streamlined production model. That is very different to the model where auction systems play the role of designating which lambs feed into which channels. Furthermore, the auction model may be unsuited to enabling producers' to secure consistent levels of profitability because not all markets will expand at similar rates and consistency of supply or quality cannot

be guaranteed over the long-term. Even though auctions may not handle fewer numbers of lambs, they will almost certainly handle a smaller percentage of the overall Canadian lamb population and a lesser proportion of high quality lambs. With the evolution of more streamlined supply arrangements, auctions may also become more of a disposal than primary supply route.

8.4 Trading Arrangements

Our expectation therefore is that, to develop the capability to supply a larger share of the overall lamb market and retain competitiveness in the face of increasingly capable international suppliers, for the Canadian lamb industry will need to embrace the type of streamlined supply arrangements that typify successful international lamb marketing initiatives. Such arrangements include Livestock Marketing Limited (Food Chain Centre, 2004; Gooch, unpublished); Q-Lamb and Alliance Group (Clothier, 2005); Tender Plus (Johnson, MCleod & Vaina, 2005). Such systems establish a closed loop by producing lamb for a specific market and encouraging the extensive sharing of information to reduce transaction costs, increase margins and achieve greater consistency in market demanded quality and supply. This leads to a lesser need to dispose of excess lamb on markets that may not be suited to specific lamb cuts or quality, fewer dissatisfied customers and consumers, and an overall increase in the perceived quality of domestically produced lamb. The same models also provide extensive export opportunities.

Lessons learnt from the experiences of other nations and sectors of agriculture is that the suppliers that do not choose to follow more strategic business approach than has traditionally been reflective of the lamb industry may well miss opportunities to retain their long-term profitability; and even market share in the face of an increasingly discerning consumer market. It therefore stands to reason that, if Canadian suppliers do not develop the capabilities necessary to serve the growing Canadian lamb market and take advantage of opportunities that exist ahead of their increasingly capable international competitors, the industry could lose a phenomenal commercial opportunity.

The Canadian sheep and lamb industry may therefore be at a crossroads. Failing to earnestly invest the resources and determination into capturing market opportunities may lead to the industry slipping further in terms of its commercial capability compared to New Zealand, Australia, and even potentially the United States. It is foreseeable that a time will occur when that gap could become so great that Canadian lamb is relegated to predominantly niche markets and loses the current empathy that the majority of consumers have for domestically produced lamb.

A paradox already exists between empathy that many Canadian consumers express towards domestically produced lamb and their purchasing behaviour. Currently, in large part this is due to the domestic industry's inability to consistently supply lamb in terms of the required quality and/or volume. Additional loss of commercial capability compared to international competitors would extend the gaps that already exist. Particularly given Australia's growing emphasis on producing feedlot lamb that may taste more like Canadian than New Zealand lamb, it is not inconceivable that any disparity could reach the level where many consumers, more familiar and satisfied with imported lamb, begin to shun Canadian lamb: regardless of its availability.

8.5 Recommendations

Undertaking this level of research, analyzing the results of consumer research and consultations with industry stakeholders to identify factors that shape current practices and how current relationships between industry stakeholders could hinder or support industry stakeholders in

taking advantage of identified market opportunities, was a challenging process. Our main findings have been identified within the body of the report. As are possible strategies for securing market opportunities.

The report would not be complete without an attempt to suggest a series of high level recommendations that, after analyzing the research, we believe are sound suggestions for methods that the Canadian lamb industry could use to position itself able to take advantage of the market opportunities that undeniably exist. All relate to the need to support and facilitate the development of well coordinated strategically-minded marketing initiatives by interested parties.

8.5.1 Cross-Industry Advisory Board

Our research found that, throughout much of the industry, little is known about factors occurring at different levels of the industry and which can significantly influence productivity or profitability. While many operators have an idea about the next level up or down in the chain, few are aware of specifics and even fewer are aware of factors occurring two stages up or down from them, yet which can readily impact their own financial viability. This was particularly acute at the producer level, where polarized views occurred more frequently than at any other level of industry.

Establishing a cross-industry advisory board that could bring perspectives from across the industry to the table in an effort to develop a long-term vision for the Canadian lamb industry, and then communicate that vision to a widespread audience of industry stakeholders, could lead to a more informed debate about opportunities and challenges facing the Canadian lamb industry. This process would likely enable greater justification to be made to government for why certain resources are required for the industry to move forward and, simultaneously, encourage processors to invest in much needed infrastructure.

8.5.2 Championing Cohesion

Consultations, particularly with a number of medium to larger producers, intimated that industry associations can be compromised in their effectiveness to support and champion industry development. This appears due to two main factors. The first is the abundance of smaller producers that capture the attention of industry associations yet often will not (or cannot) develop capabilities necessary to support the development of a world class lamb/sheep industry. The second is lack of cohesion between the governance structures and interaction of the provincial and federal associations. Differences in the perspectives of associations that represent sheep breeders versus lamb producers, for instance, may well lead to missed opportunities to harmonize the industry and innovate effectively according to market demands.

These factors, and the impact it has on the ability to develop then encourage stakeholder buy-in to a long-term vision for the industry, may in part be responsible of the fragmented structure that our consultations suggested as typifying much of the Canadian sheep and lamb industry. Leaders in international sheep and lamb production, particularly New Zealand, Australia, and to a lesser extent the United Kingdom, have established formal channels of communication and representation between different levels of industry and stakeholder interests. This results in the ability to champion and oversee research into factors affecting all levels of the lamb (including both beef and lamb production and marketing), and facilitate information flow and improvement activities throughout the industry. While not without its challenges, this formalized process of integration and the opportunity to apply lessons learnt to new areas has supported industry growth. The same approach to cross industry pollination and governance, if introduced into Canada, might facilitate industry development more effectively than is currently the case.

8.5.3 Research and Celebrate Success

Great efforts have been made in the same countries as identified above to research and identify the factors that make for successful agri-food production and marketing initiatives. The Red Meat Industry Forum (RMIF) is a UK initiative focused on identifying ways to improve productivity and profitability in meat production; then disseminate findings across the wider industry through a variety of media and distribution methods. The ultimate aim is to encourage replication and grow capabilities across the entire industry. Similar efforts are undertaken to identify then disseminate findings surrounding successful marketing initiatives.

The research practices involve businesses operating at all levels of whichever chain is the focus of the research; thereby encouraging greater understanding of challenges and opportunities existing at each level and experienced by each business entity. Portraying a chain whose members are cooperating for mutual benefit has proved a powerful incentive for peer organizations to at least consider following suit. There will also be businesses or producers that, while not directly involved in funded projects, will be business partners of the project participants and could therefore benefit directly from the initiative in a short space of time. A longer-term result of the initiative is the possibility of greater coordination and cohesion across the general lamb industry. Extensive research efforts continue to be undertaken as well in New Zealand and Australia through partnerships between industry associations, businesses, and government. Little if any evidence of this type of approach towards researching successful business models, then celebrating their success through communication and discussion forums, was found to be occurring in the Canadian lamb industry: albeit with a very small number of exceptions and then not at all on the same scale.

8.5.4 Communicate Lamb Grading System

Consultations suggested that producers in particular, though also retailers and foodservice operators (large and small) often have little if any knowledge of the Canadian lamb grading system. The literature review also identified comments surrounding how Canadian lamb grading differs significantly from Canadian beef grading, and the confusion this could cause to buyers and well as consumers of Canadian lamb. Being separate is not always better, particularly given that consumers often seek a basis on which to compare unfamiliar and familiar products during the purchasing decision process. Another beneficial outcome of the UK, New Zealand and Australian industry governance structure is ensuring adequate crossover between grading specifications of beef and lamb, as well as their application throughout the industry. Distinct reasons have been cited in this report for revisiting the Canadian lamb grading system to develop a process that is both more effective in terms of practicality and market demands.

8.5.5 Explore Opportunities to Develop Counter-Seasonal Supply Arrangements

Reference was made in the report to counter-seasonal supply arrangements that have been practiced with great success by New Zealand and UK lamb producers. Arguably the first formal arrangement involved Livestock Marketing and Canterbury Meat Packers. Commencing in 1993 they together supply fresh tray packed lamb to the UK retailer, Waitrose. A similar initiative, based on using identical genetics to produce year-round consistently high quality lamb is currently under development for supplying another UK retailer, Marks and Spencer. This initiative is being facilitated by the genetics supplier, Rissington Breedlines, who also manage forward and store contracts for New Zealand producers utilizing their stock lines. Given Canada's harsh winters and the need to house lambs / breeding stock, as well as the cost of implementing out of season breeding in ewes, counter-seasonal supply arrangements could offer Canadian an effective option for targeting large grocery chains through the ability supply a private label brand on a year-round basis.

8.5.6 Develop and Market Value-Added Products

The consumer research provided evidence to suggest that market opportunities existed for value-added lamb products. As production volumes of lamb increase, as will hopefully be the case, the issue of maintaining carcass balance to retain carcass value will undoubtedly arise. Value-added products are desired by retailers and foodservice operators alike as a way of satisfying demand for new and innovative products that offer a pleasurable eating experience and value for money. Given this observation and the importance of developing / promoting value added products to consumers, it would appear that supporting the development of such products represents an important role for industry associations and would clearly benefit the Canadian lamb industry as a whole.

8.5.7 Provincial / Federal Inspection

The issue of provincial versus federal inspection of slaughter and processing facilities, and the impact that almost three-quarters of Canadian lamb production passing through provincially inspected facilities has upon market opportunities for Canadian lamb cannot be underestimated. The challenge is expected to increase exponentially as production increases. While recommendations cannot be made for how the industry seeks to address this matter from a political or lobbying standpoint, it is undoubtedly a matter of concern and one that could inhibit growth dramatically. It is also a system that is unique to Canada when compared to any leading international producer of lamb.

8.5.8 Learn From Other Industries

Opportunities undoubtedly exist to implement lessons learnt from successful chain-enabled lamb marketing initiatives, whether one of the few that exist in Canada and are largely still in the developmental stages, or any of those that exist around the world – some of which have been mentioned within this report. Lessons for how lamb can be produced, processed and marketed in ways that bring financial benefits to all the members of the chain are not difficult to find. Critical to their success is vision, leadership, management competencies, trust and commitment. The majority of the initiatives have developed from a crisis. That factor alone says that, whatever the circumstance, opportunities exists to profitably produce lamb by working as a chain to successfully meet market demands better than competitors. It also suggests that, at the end of the day it is individual industry participants who have to take control of their destiny; industry associations, governments, and researchers can only do much to facilitate commercial development amongst businesses.

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Appendix A – Lamb Consumption Questionnaire

Consumers Attitudes Toward Lamb

Q1. Which of the following have you eaten in the past 12 months?
(Please check all that apply)

[RANDOMIZE, NONE ALWAYS LAST]

Lamb

Beef

Chicken

Pork

None [EXCLUSIVE, IF SELECTED TERMINATE]

[IF LAMB NOT SELECTED IN Q1, GO TO Q21. OTHERWISE, CONTINUE]

Q2. When you are deciding what meat to purchase, how important are each of the following factors? Please use a scale from 1 to 10, where 1 means “Not at all important” and 10 means “Extremely important”

(Please select one per row)

[RANDOMIZE]

It is easy to prepare

It is consistently of high quality

It is a healthy food option

It is convenient for weekday meals

It is good value for the money

It tastes great

It is produced in my province

It is produced in Canada

Organically raised options are available

My whole family will eat it

It is offered on special for a price discount

I can cook it in a variety of ways

[VALUE RANGE 1 to 10]

[ONLY DISPLAY THOSE TYPES OF MEAT THEY INDICATED EATING IN Q1.]

Q3. Please indicate the extent to which you agree with each of the following statements, for each of the following types of meat. Please use a scale from 1 to 10, where 1 means “Completely disagree” and 10 means “Complete agree”.

(Please indicate how much you agree with each statement for each cut of meat)

[COLUMNS]

Beef
Chicken
Lamb
Pork

[ROWS]

It is easy to prepare
It is consistently of high quality
It is a healthy food option
It is convenient for weekday meals
It is good value for the money
It tastes great
It is produced in my province
It is produced in Canada
Organically raised options are available
My whole family will eat it
It is offered on special for a price discount
I can cook it in a variety of ways

[VALUE RANGE 1 to 10]

Q4. Who is in your household? Please indicate the number of people in your household in each age and gender group, including yourself.

(Select all that apply)

[COLUMNS]

1
2
3
4 or more

[ROWS]

Females:

Female aged 55+
Female aged 35 - 54
Female aged 18 – 34
Female aged 13 – 17
Female aged 12 or younger

Males:

Male aged 55+
Male aged 35 - 54
Male aged 18 – 34

Male aged 13 – 17
Male aged 12 or younger

[DISPLAY ONLY THOSE FAMILY MEMBER CHECKED IN Q4]

Q5. Can you please indicate which age and gender group you personally belong to?
(Please select only one.)

[ROWS]

Females:

Female aged 55+

Female aged 35 - 54

Female aged 18 – 34

Female aged 13 – 17

Female aged 12 or younger

Males:

Male aged 55+

Male aged 35 - 54

Male aged 18 – 34

Male aged 13 – 17

Male aged 12 or younger

Q5b. In Canada today, many people originate from, and relate to an ethnic background besides being Canadian. Which of the following ethnic groups, if any, do you feel describe you?
(Please select all that apply.)

[ITEM]

English

French

Scottish

Irish

German

Italian

Chinese

Ukrainian

North American Indian

Dutch (Netherlands)

Polish

East Indian

Norwegian

Portuguese

Welsh

Jewish

Russian

Filipino

Métis

Swedish

Hungarian (Magyar)

American (USA)

Greek
Spanish
Jamaican
Danish
Vietnamese
Other
None [EXCLUSIVE]

Q6. When was the last time you personally ate lamb?
(Please select only one.)

[LIST]
Less than one week ago
One week to less than a month ago
One month to less than 3 months ago
3 months to less than 6 months ago
More than 6 months ago

[IF Q6 = “Less than one week ago” or “One week to less than a month ago”, ASK Q7.
OTHERWISE SKIP TO Q8]

Q7. Did you eat lamb this past Easter?

[LIST]
Yes
No
I do not celebrate Easter

[Display only those family members checked in Q4]
Q8. How frequently do you and the other members of your household eat lamb?
(Please select one per row.)

[COLUMN]
Females:
Female aged 55+
Female aged 35 - 54
Female aged 18 – 34
Female aged 13 – 17
Female aged 12 or younger

Males:
Male aged 55+
Male aged 35 - 54
Male aged 18 – 34
Male aged 13 – 17
Male aged 12 or younger

[ROWS]
At least once a week
About once every 2 or 3 weeks

About once a month
About once every 2 or 3 months
About once every 3 or 4 months
Less than once every 4 months

[MUST SUM TO 100%]

Q9. Thinking back over the past year, what percent of your total lamb consumption do you consume during each season?
(Please fill in a percentage for each.)

___% Spring
___% Summer
___% Fall
___% Winter

[VALUE RANGE: 0% to 100%]

[MUST SUM TO 100%]

Q10. Again thinking back over the past year, what percent of your total lamb consumption is eaten during each of the following times?
(Please fill in a percentage for each.)

___% Weekdays
___% Weekends
___% Special occasion

[VALUE RANGE: 0% to 100%]

[MUST SUM TO 100%]

Q11. Thinking about your total purchases of lamb over the past 12 months, what proportion would you say that you purchased from each of the following locations?
(Please fill in a percentage for each.)

___% Grocery stores (i.e., Loblaws, Dominion, Safeway, Maxi, etc.)
___% Discount grocery stores (i.e., FoodBasics, No Frills, IGA, etc.)
___% Specialty or ethnic grocery stores
___% Mass merchandisers or discount department stores (i.e., Zellers, Walmart, etc.)
___% Warehouse club stores (i.e., Costco, Sam's Club)
___% Butcher shops
___% Farms
___% Fine dining restaurants
___% Family style restaurants
___% Fast food restaurants
___% Other (Please specify) _____

[VALUE RANGE: 0% to 100%]

[INSERT LARGEST RESPONSE FROM Q11, IF IT'S A TIE, INSERT WHICHEVER COMES FIRST IN THE LIST]

Q12. What are the main reasons that you purchase lamb most often from [INSERT LARGEST FROM Q10]?

(Please be as specific as possible.)

Q13. Thinking back over the past 12 months, which of the following cuts or types of lamb have you eaten, either at home or in a restaurant (including fast food)?

(Please select all that apply for each column.)

[COLUMNS]

Eaten at home

Eaten in a restaurant

[RANDOMIZE, "NONE" and "OTHER" ALWAYS LAST]

Shoulder

Kebobs

Chops

Crown Roast

Legs

Lamb patties

Ground lamb

Stewing lamb

Shanks

Ribs (rack)

Gyros

Other (please specify) _____

None [EXCLUSIVE]

Q14. Overall, how satisfied are you with all the lamb that you have eaten in the past 12 months?

(Please select only one.)

[LIST]

Completely satisfied

Most satisfied with some room for improvement

Mostly dissatisfied with a lot of room for improvement

Completely dissatisfied

[IF Q14 <> "Completely satisfied", ASK Q15. OTHERWISE SKIP TO Q16a.]

Q15. What are the main areas in which lamb needs to be improved, in order for you to be completely satisfied?

(Please be as specific as possible.)

[IF “Shoulder” NOT SELECTED IN Q13, ASK Q16a. OTHERWISE SKIP TO Q16b.]
Q16a. What are the main reasons that you did not eat lamb shoulder, in the past 12 months?
(Please select all that apply.)

[LIST]

- It is too expensive
- I do not like the taste
- There are other cuts I prefer
- It is of poor quality
- My family does not like it
- It is too difficult to prepare
- I don't know how to prepare it
- I've never heard of it
- It is not available where I buy lamb from
- The size of cuts does not fit my needs
- It is a less healthy cut
- It is poor value for the money
- It is not available fresh / It is only available frozen
- It is not available from New Zealand lamb producers
- It is not available from Australian lamb producers
- It is not available from Canadian lamb producers
- Other (Please specify) _____

[IF “Shank” NOT SELECTED IN Q13, ASK Q16b. OTHERWISE SKIP TO Q17.]
Q16b. What are the main reasons that you did not eat lamb shank, in the past 12 months?
(Please select all that apply)

[LIST]

- It is too expensive
- I do not like the taste
- There are other cuts I prefer
- It is of poor quality
- My family does not like it
- It is too difficult to prepare
- I don't know how to prepare it
- I've never heard of it
- It is not available where I buy lamb from
- The size of cuts does not fit my needs
- It is a less healthy cut
- It is poor value for the money
- It is not available fresh / It is only available frozen
- It is not available from New Zealand lamb producers
- It is not available from Australian lamb producers
- It is not available from Canadian lamb producers
- Other (Please specify) _____

[MUST SUM TO 100%]

Q17. Thinking of the different countries that produce lamb, what proportion of the lamb that you have purchased in the past 12 months, was produced in each of the following countries?
(Please enter a percentage for each.)

[RANDOMIZE]

___% Australia
___% Canada
___% New Zealand
___% United States
___% Other (Please specify) _____

[VALUE RANGE: 0 to 100%, INCLUDE A “Don’t know” option.]

[ONLY DISPLAY “OTHER”, IF THEY SELECTED IT IN Q17]

Q18. Thinking of the different countries that produce lamb, how do you perceive the overall quality of the lamb from each of these countries? Please use a scale from 1 to 10, where 1 means “Poor quality and 10 means “Excellent quality”.
(Please give a rating for each row.)

[DISPLAY IN SAME ORDER AS Q17]

Australia
Canada
New Zealand
United States
[INSERT “Other (Please specify)” FROM Q17]

[VALUE RANGE: 1 to 10, Don’t know]

[SPLIT THE SAMPLE INTO 2 EQUAL GROUPS OF 200, EACH GROUP WILL BE ASKED Q19 FOR EITHER Canada and New Zealand OR Canada and Australia. WILL NEED A VARIABLE IN THE DATASET TO INDICATE WHICH GROUP THEY WERE ASSIGNED TO.]

Q19. Based on your own experience and/or your overall impressions, please rate the lamb produced in Canada and [INSERT New Zealand or Australia] on each of the following factors. Please use a scale from 1 to 10, where 1 means “Very poor” and 10 means “Excellent”.

[COLUMNS]

Canada
[INSERT New Zealand or Australia]

[ROWS]

Freshness
Colour
Taste
Fat content
Reputation
Consistency of quality
Appropriate sizes of the cuts
Availability of desired cuts
Tenderness
Availability where I do most of my grocery shopping

Value for money
Price

[VALUE RANGE: 1 to 10, Don't know]

Q20. Please complete the following the sentence.

I would eat more lamb if...._____

[IF SELECTED LAMB IN Q1, SKIP TO END]

[ONLY ASK OF THOSE THAT HAVE NOT EATEN LAMB IN THE PAST 12 MONTHS]

Q21. Have you ever, in your entire life, eaten lamb?
(Please select only one.)

- Yes
- No

[IF Q21 IS "YES", ASK Q22, OTHERWISE SKIP TO Q23]

Q22. When was the last time that you ate lamb? (Please select only one.)

- [LIST]
- 1 to 2 years ago
 - 2 to 3 years ago
 - 3 to 4 years ago
 - More than 4 years ago
 - Don't know

Q23. What are the main reasons that you have not eaten lamb in the past 12 months?

(Please be as specific as possible.)

Appendix B – Lamb Consumption Survey: Results



Quantifying the Market Opportunity for Lamb - Market Research FINAL Report -

June 2006

1



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2



Background

- With domestic markets for food maturing, the growth in volumes of generic food products is limited. Greater opportunities for growth will result from lamb products that are differentiated to meet specific market segments and consumer demands.
- Located further from consumer markets, lamb producers and processors find it difficult to obtain sufficiently accurate and relevant information to produce products to better meet consumers' wants. By identifying specific marketing segments and opportunities, lamb producers and processors can meet these needs, create higher value propositions and capture increased returns.
- The information collected in this research will be used primarily to create specific differentiated lamb products for their customers and meet consumer demand.

3



Research Methodology

- A total of 981 online surveys were completed by lamb eaters across Canada; an additional 2472 surveys were completed by non-lamb eating Canadians.
- Consumers were recruited from Ipsos-Reid's I-Say Panel and were screened to ensure they ate lamb at least once in the past 12 months.
- All surveys were completed between April 26 and May 1, 2006.
- The average survey took 18 minutes to complete.
- The breakdown of the completed surveys by region is as follows:

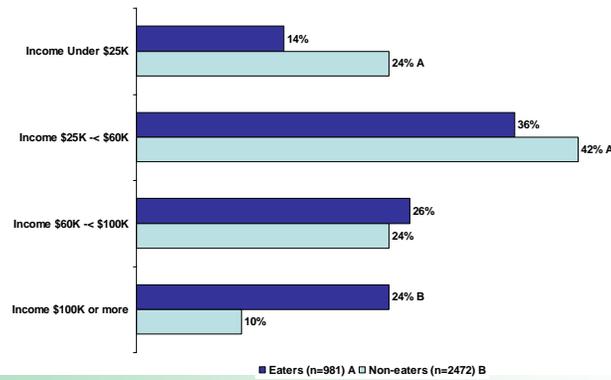
	Completed Surveys from Lamb Eaters
Atlantic Provinces	35
Quebec	266
Ontario	368
Prairie Provinces (Manitoba and Saskatchewan)	58
Alberta and the Territories	85
British Columbia	169
Total Number of Completes	981

4



Research Methodology

- Statistically higher results between independent segments, at the 95% confidence level are denoted in tables using letters and yellow cells. In charts, statistically higher results are displayed using letters only.
- In the chart below, for example, lamb eaters (denoted by the letter A) are more likely to have a household income in excess of \$100,000 than non-lamb eaters (denoted by the letter B):



5



Detailed Findings – Profile of Lamb Consumption and Purchase Channels

6



Incidence of lamb eaters

➤ Relative to other meat categories, consumers eat considerably less lamb.



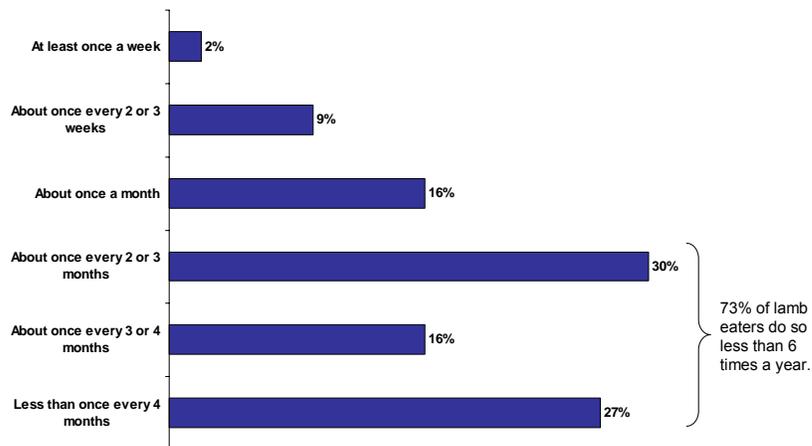
q1. Which of the following have you eaten in the past 12 months?
 Base: All respondents: n=3453

7



Frequency of lamb consumption

➤ For the strong majority of lamb eaters, lamb is only an occasional meal and not part of their weekly or even monthly diet.

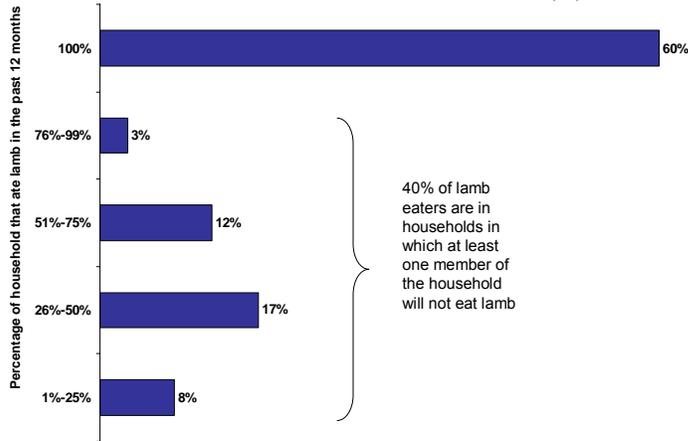


q8. How frequently do you eat lamb?
 Base: Have eaten lamb in the past 12 months: n=981

8

Ipsos **Proportion of household that eats lamb**

- For a considerable number of households, lamb is not eaten by all household members.
 - Not only does this reduce the available market of lamb consumers but it may also reduce the frequency with which a household will eat it, since an alternative will need to be prepared for those not eating lamb.

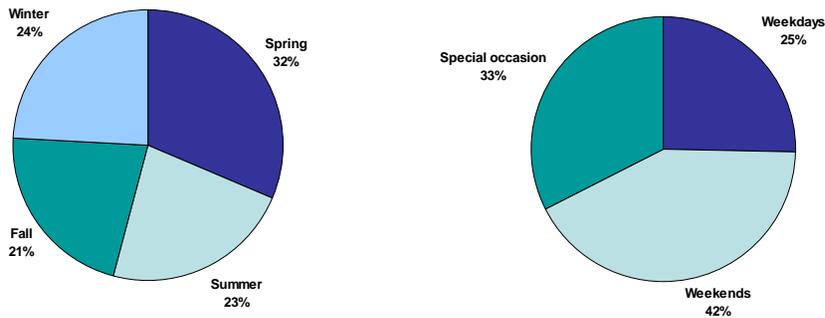


q4/q8. How frequently do you and the other members of your household eat lamb?
 Base: Have eaten lamb in the past 12 months: n=981

9

Ipsos **Occasions when lamb is eaten**

- While there is no primary season in which lamb is consumed, lamb is definitely seen as a specialty dish served primarily on weekends and special occasions.



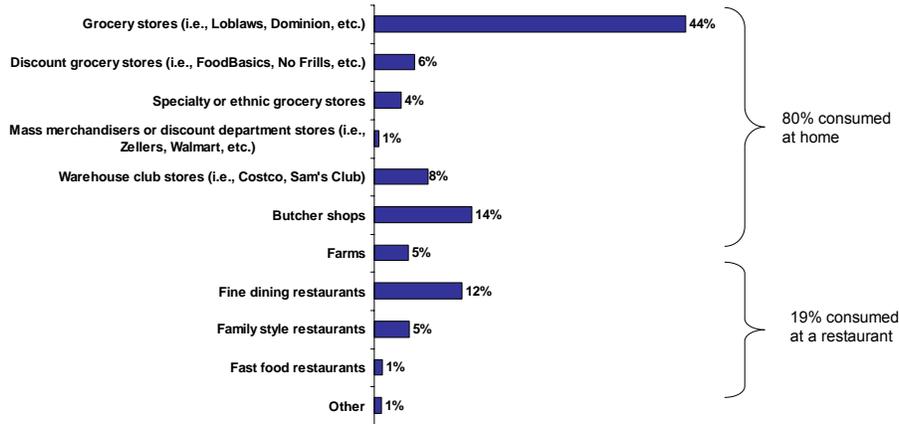
q9. (Means Summary) Thinking back over the past year, what percent of your total lamb consumption did you consume during each season?
 q10. (Means Summary) Again thinking back over the past year, what percent of your total lamb consumption was eaten during each of the following times? Base: Have eaten lamb in the past 12 months: n=981

10



Purchase channels for lamb

- While the majority of lamb is being purchased through retail outlets for home consumption, a significant portion is still only purchased through restaurants.



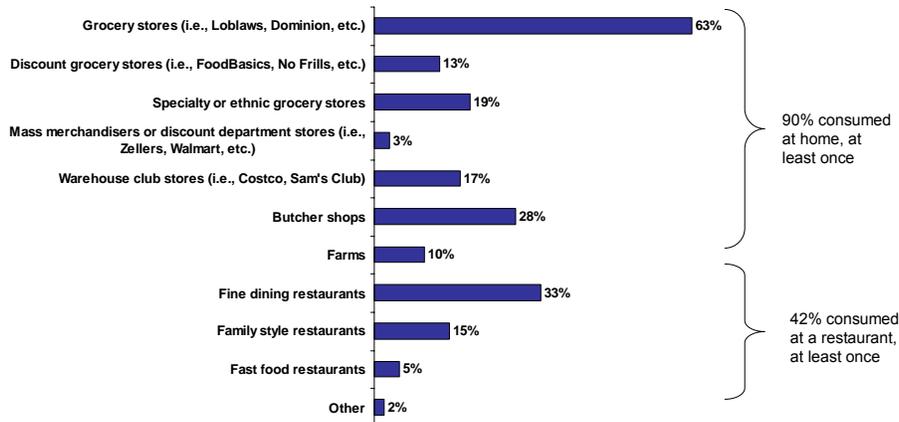
q11. Thinking about your total purchases of lamb over the past 12 months, what proportion would you say that you purchased from each of the following locations?
 Base: Have eaten lamb in the past 12 months (Total answering): n=981

11



Penetration of purchase channels for lamb

- Nearly two-thirds of consumers purchased lamb at a grocery store at least once in past year and fully 9 in 10 purchased it at some type of retail outlet at least once.
 - This highlights the importance of the retail sales channel to the market for lamb.



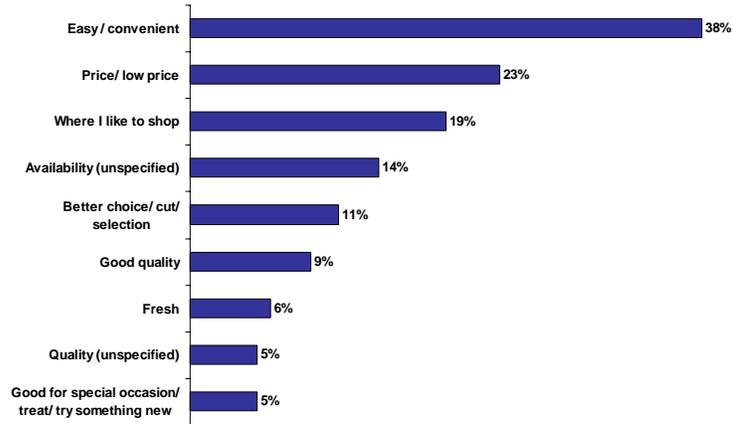
q11. Thinking about your total purchases of lamb over the past 12 months, what proportion would you say that you purchased from each of the following locations?
 Base: Have eaten lamb in the past 12 months (Total answering): n=981

12



Main reasons for purchasing lamb primarily at grocery stores

- 46% of lamb eaters purchase **most** of their lamb at grocery stores and do so primarily because it is easy, convenient and the prices are lower.
 - Availability, quality, selection, and freshness are secondary motives.



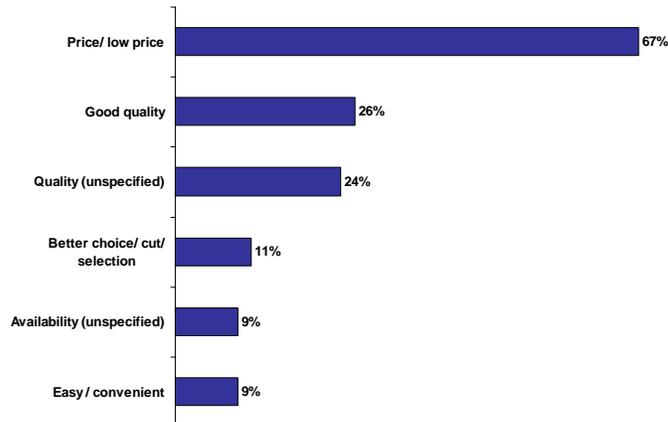
q12_1. What are the main reasons that you purchase lamb most often from Grocery stores (i.e., Loblaws, Dominion, Safeway, Maxi, etc.)?
 Base: Have eaten lamb in the past 12 months (Largest response): n=450

13



Main reasons for purchasing lamb primarily at warehouse club stores

- While only 8% of lamb eaters purchase **most** of their lamb from warehouse club stores, those that do are primarily motivated by the lower prices, although the quality at these locations is perceived to be quite high.



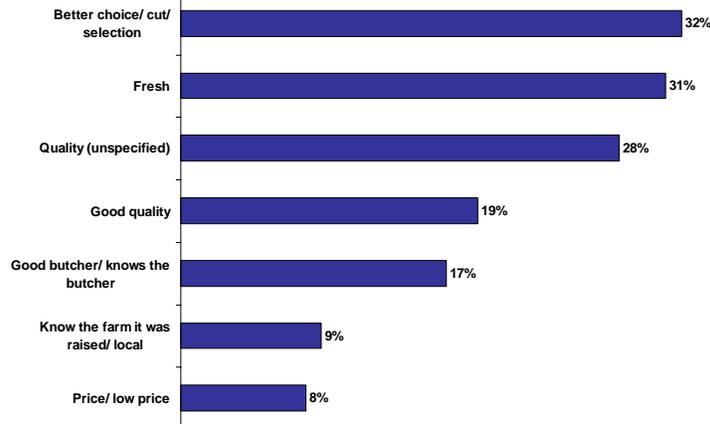
q12_5. What are the main reasons that you purchase lamb most often from Warehouse club stores (i.e., Costco, Sam's Club)?
 Base: Have eaten lamb in the past 12 months (Largest response): n=70*

14



Main reasons for purchasing lamb primarily through butcher shops

- The 13% of lamb consumers that purchase most of their lamb at butcher shops are more discerning shoppers. They go to the butcher because of the selection, the freshness and the quality.
 - Price is not a critical motivator for most of these consumers.



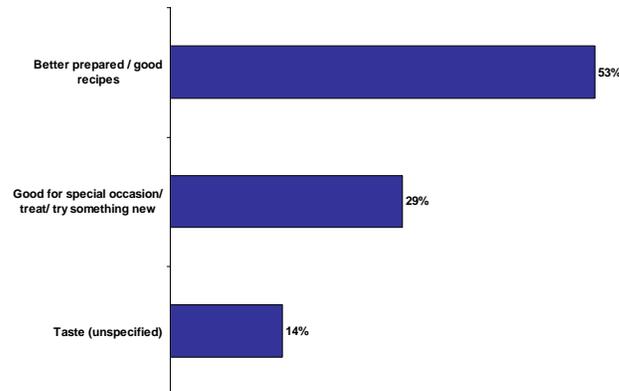
q12_6. What are the main reasons that you purchase lamb most often from Butcher shops?
 Base: Have eaten lamb in the past 12 months (Largest response): n=128

15



Main reasons for purchasing lamb primarily at fine dining restaurants

- For the 11% of lamb consumers that purchase most of their lamb at fine dining restaurants, they are drawn in by the superior preparation and taste of the lamb.
 - Amongst this segment, lamb is commonly seen as a treat for a special occasion.

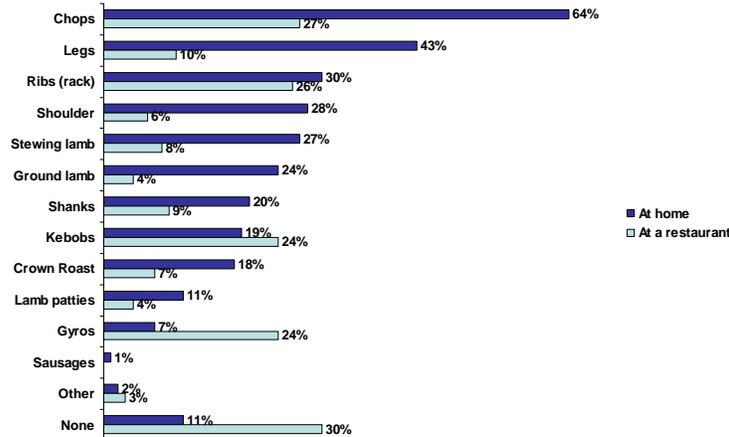


q12_8. What are the main reasons that you purchase lamb most often from Fine dining restaurants?
 Base: Have eaten lamb in the past 12 months (Largest response): n=105

16

Ipsos **Incidence of cuts of lamb eaten at home or in a restaurant**

- Consumers most commonly purchase the premium cuts of lamb, since lamb chops, legs, and ribs are the most popular for home consumption.
 - Despite not eating lamb that frequently, the vast majority of lamb eaters have eaten it in a restaurant at least once in the past year, with kebobs and gyros being particularly popular.



q13a. Thinking back over the past 12 months, which of the following cuts or types of lamb have you eaten, either at home or in a restaurant (including fast food)?
 Base: Have eaten lamb in the past 12 months: n=981

17

Ipsos **Implications**

- Since the vast majority of lamb eaters only eat lamb five or six times a year and even then only on special occasions or weekends, there may be an opportunity to increase their consumption by promoting lamb as ideal for “anytime”.
- With 80% of lamb being purchased through retail outlets, maintaining strong partnerships with players further up the value chain will be critical to promoting Canadian lamb.
- A significant portion of lamb eaters eat lamb primarily at fine dining restaurants since they feel the recipe or preparation is better there than they can do at home. This suggests that some consumers are unfamiliar with the proper preparation of it.

18



Detailed Findings – Consumer Segments

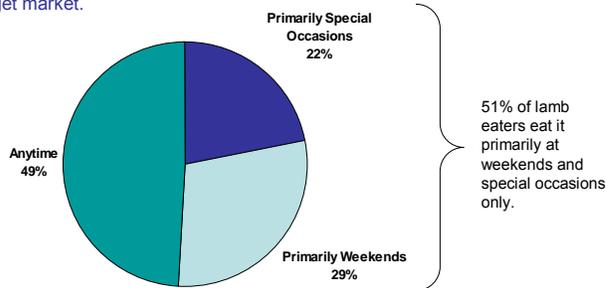


19



Segments based on *when* consumers eat lamb

- Lamb eaters can be broken into groups based on *when* they primarily eat lamb:
 - Consumers that eat lamb at anytime (less than 50% at special occasions and less than 50% on weekends) make up half of the lamb eating consumers.
 - Those that eat lamb primarily on special occasions (at least 50% at special occasions) make up just over one-fifth of lamb eaters.
 - Those that eat lamb mainly on weekends (at least 50% at weekends) are slightly less than one-third of the target market.

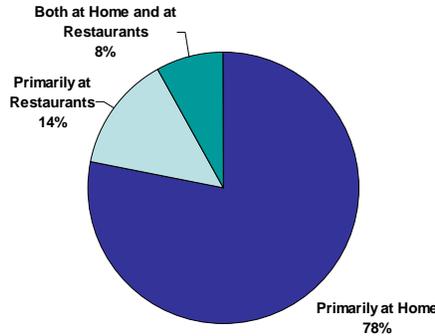


q10. (Means Summary) Again thinking back over the past year, what percent of your total lamb consumption was eaten during each of the following times?
 Base: Have eaten lamb in the past 12 months: n=981

20

Segments based on *where* consumers eat lamb

- Lamb eaters can also be broken into groups based on *where* they eat lamb:
 - More than three-quarters of lamb eaters purchase the majority of the lamb that they eat from a retail store and consume it at home.
 - Those that eat the majority (>50%) of their lamb at restaurants, comprise 14% of lamb eaters.
 - Less in than 1 in 10 lamb eaters eat lamb at restaurants and at home equally (50% each).



q11. Thinking about your total purchases of lamb over the past 12 months, what proportion would you say that you purchased from each of the following locations?
 Base: Have eaten lamb in the past 12 months (Total answering): n=981

21

Frequency of lamb consumption

- Those that eat lamb at anytime, eat significantly more lamb than those that eat it only on weekends or special occasions.
 - Those that eat it primarily on the weekends, however, do tend to eat it more frequently than those that eat it primarily at specials occasions.
 - Promoting lamb as a meat that is ideal for anytime, may be the best approach to increasing lamb consumption, overall.

	Primarily Special Occasions A	Primarily Weekends B	Anytime C
Base: Have eaten lamb in the past 12 months	(n=215)	(n=283)	(n=483)
At least once a week	-	1%	4% AB
About once every 2 or 3 weeks	0	4% A	15% AB
About once a month	2%	17% A	21% A
About once every 2 or 3 months	18%	36% A	31% A
About once every 3 or 4 months	20% C	17%	13%
Less than once every 4 months	56% BC	24% C	14%
Never	3% C	1%	1%

q4/q8. How frequently do you eat lamb?

22



Frequency of consumption based on primary location of consumption

- Consumers that eat lamb primarily at **home**, tend to eat significantly more lamb than those that eat it more commonly in a **restaurant**.
 - The home consumption market will be the critical area of focus in order to grow the market for lamb, in general.

	Primarily at Home	Primarily at Restaurants	Both at Home and Restaurants
	A	B	C
Base: Have eaten lamb in the past 12 months	(n=766)	(n=136)	(n=79*)
At least once a week	2%	1%	3%
About once every 2 or 3 weeks	10% B	1%	5%
About once a month	18% B	7%	13%
About once every 2 or 3 months	32% C	24%	20%
About once every 3 or 4 months	16%	20%	13%
Less than once every 4 months	21%	44% A	46% A
Never	1%	3%	1%

q4/q8. How frequently do you eat lamb?

23



Proportion of household that eats lamb

- Those eating lamb at anytime, also tend to have a greater proportion of the household eating lamb.

	Primarily Special Occasions	Primarily Weekends	Anytime
	A	B	C
Base: Have eaten lamb in the past 12 months	(n=215)	(n=283)	(n=483)
1%-25%	14% BC	7%	6%
26%-50%	16%	18%	17%
51%-75%	13%	13%	11%
76%-99%	3%	5% C	2%
100%	54%	57%	63% A

q4/q8. How frequently do each of the following members of your household eat lamb?

24



Proportion of household that eats lamb

- Consumers that primarily eat lamb at restaurants are significantly more likely to come from households where less than half of the household members will eat lamb.

	Primarily at Home A (n=766)	Primarily at Restaurants B (n=136)	Both at Home and at Restaurants C (n=79*)
Base: Have eaten lamb in the past 12 months			
1%-25%	7%	17% A	9%
26%-50%	15%	26% A	19%
51%-75%	12%	8%	15%
76%-99%	3%	2%	5%
100%	63% B	47%	52%

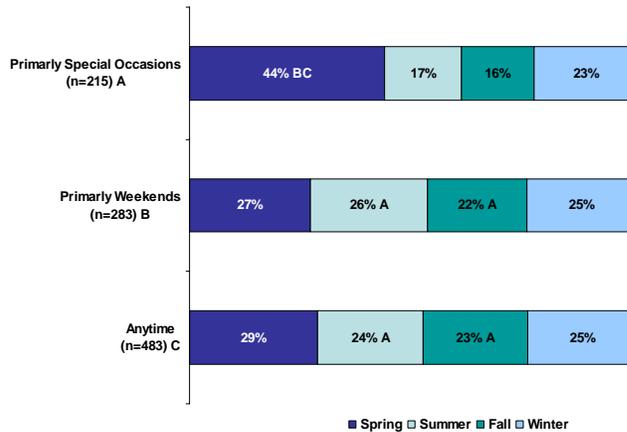
q4/q8. How frequently do each of the following members of your household eat lamb?

25



Seasonal variation in lamb consumption

- Those that eat lamb primarily on the weekends or at anytime, are less prone to seasonal variation in their consumption.



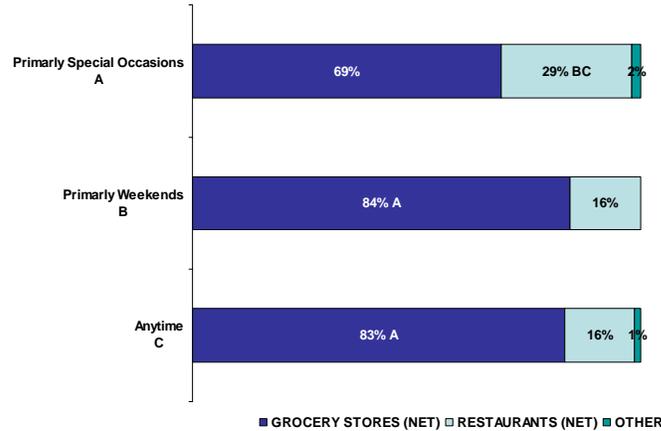
q9. (Means Summary) Thinking back over the past year, what percent of your total lamb consumption did you consume during each season?

26



Primary purchase channel

- Those that eat lamb primarily at special occasions only, are significantly more likely to eat at least half of their lamb at restaurants, rather than preparing it themselves at home.



q11. Thinking about your total purchases of lamb over the past 12 months, what proportion would you say that you purchased from each of the following locations?

27



Cuts of lamb eaten at home

- Those that eat lamb at anytime are more inclined to eat a wider variety of cuts including less desirable cuts like lamb shoulders, stewing lamb, and shanks.
 - Promoting lamb as a meat that is ideal for anytime, could encourage those that eat it primarily on the weekends to eat it during the week, also.

	Primarily Special Occasions A	Primarily Weekends B	Anytime C
Base: Have eaten lamb in the past 12 months	(n=215)	(n=283)	(n=483)
Chops	42%	65% A	72% A
Legs	33%	44% A	47% A
Ribs (rack)	21%	30% A	35% A
Shoulder	16%	29% A	33% A
Stewing lamb	13%	26% A	35% AB
Ground lamb	17%	22%	29% AB
Shanks	11%	20% A	23% A
Kebobs	11%	20% A	22% A
Crown Roast	14%	17%	20% A
Lamb patties	6%	11% A	14% A
Gyros	3%	7%	8% A

q13a1. (Eaten at home) Thinking back over the past 12 months, which of the following cuts or types of lamb have you eaten, either at home or in a restaurant (including fast food)?

28



Age and income among consumption segments

- Consumers eating lamb at special occasions only are typically younger and tend to have a lower income.

	Primarily Special Occasions A	Primarily Weekends B	Anytime C
Age	(n=215)	(n=283)	(n=483)
Age 55 years or older	38%	46%	47% A
Age 35-54 years old	37%	37%	34%
Age 34 years or younger	25% B	17%	19%
Income	(n=215)	(n=283)	(n=483)
Income Under \$25K	17% B	8%	16% B
Income \$25K -< \$60K	40% B	32%	36%
Income \$60K -< \$100K	20%	31% A	27%
Income \$100K or more	23%	29% C	22%

29



Age and income among consumption segments

- Those eating lamb primarily at home tend to be older than those eating lamb at least half the time in restaurants.

	Primarily at Home A	Primarily at Restaurants B	Both at Home and at Restaurants C
Age	(n=766)	(n=136)	(n=79*)
Age 55 years or older	47% BC	38%	30%
Age 35-54 years old	35%	32%	43%
Age 34 years or younger	17%	29% A	27% A
Income	(n=766)	(n=136)	(n=79*)
Income Under \$25K	13%	14%	22% A
Income \$25K -< \$60K	37%	32%	34%
Income \$60K -< \$100K	26%	30%	22%
Income \$100K or more	24%	24%	23%

30



Implications

- A slight majority of lamb eaters do so primarily at special occasions and weekends, only. This substantial portion of the market represents a large opportunity if they can be convinced that lamb is ideal for “anytime” and driven to eat lamb more frequently.
 - Even getting just those eat it at special occasions only to eat it on weekends also should increase their overall consumption of lamb.
- A key demographic of concern will be the those under the age of 35 since they tend to eat less lamb overall, and typically eat it at special occasions only and primarily at restaurants.
- Promoting lamb as an “anytime” meal can be expected to have other benefits for the lamb industry:
 - It may reduce the seasonal association of lamb with the spring time; and
 - It can increase the amount of lamb that is consumed at home; and
 - It can increase the variety of cuts that are eaten, beyond just chops and legs.

31



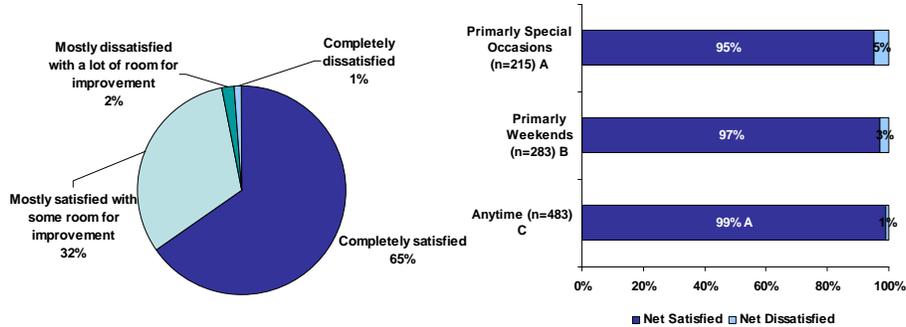
Detailed Findings – Perceptions of Lamb

32



Satisfaction with lamb

- Overwhelmingly, consumers are satisfied (97%) with the lamb that they have eaten in the past 12 months.
 - Even those consumers that only eat lamb at special occasions are extremely satisfied with the lamb they have eaten.



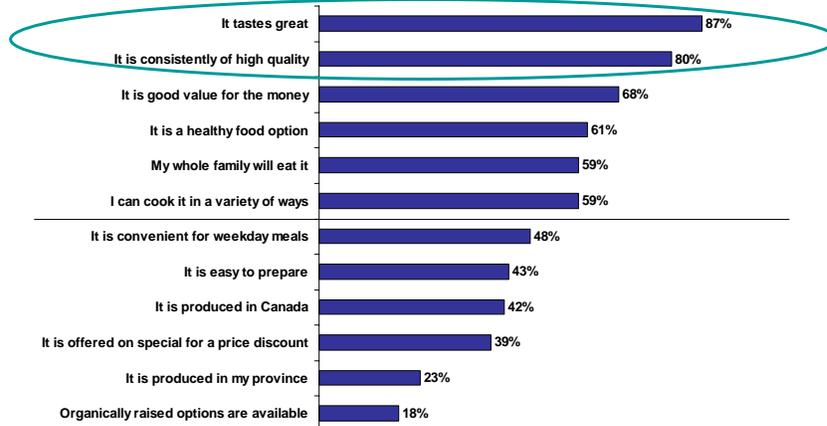
q14. Overall, how satisfied are you with all of the lamb that you have eaten in the past 12 months?
 Base: Have eaten lamb in the past 12 months: n=981

33



Important decision criteria when purchasing meat

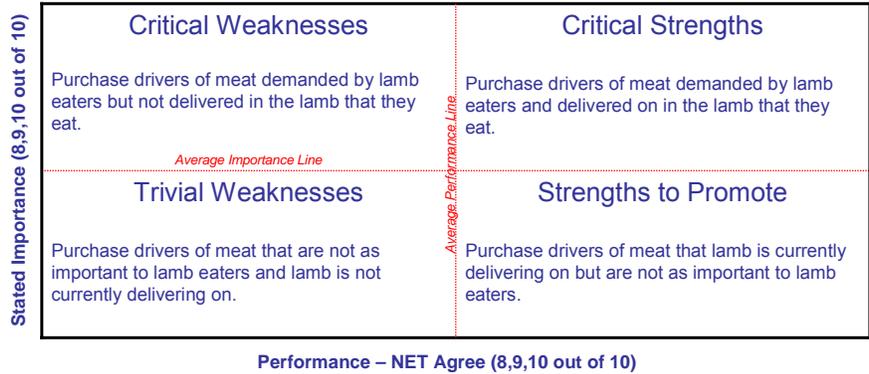
- When deciding what meat to purchase, consumers are most concerned with the taste and the quality.
 - Price, health considerations, whether the whole family will eat it, and options in how they can cook it are also important considerations.



(Top 3 Box Summary: 8,9,10 out of 10) Q2. When you are deciding what meat to purchase, how important are each of the following factors? Please use a scale from 1 to 10, where 1 means 'Not at all important' and 10 means 'Extremely important'
 Base: Have eaten lamb in the past 12 months: n=981

34

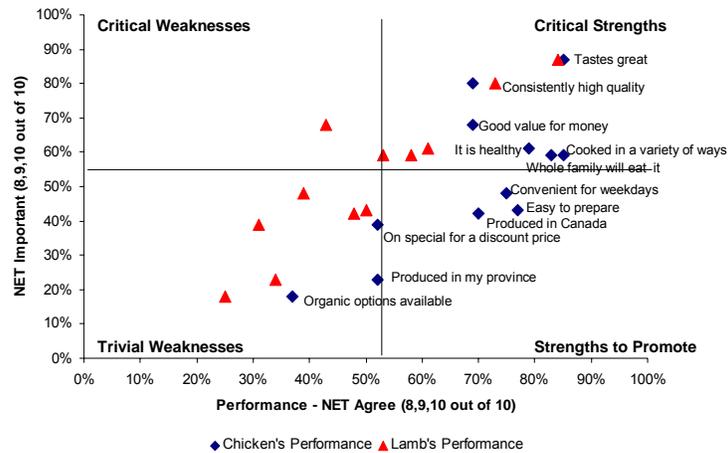
Ipsos **Performance grid interpretation**



35

Ipsos **Comparison of chicken and lamb**

- Chicken outperforms lamb on virtually all decision criteria, including taste, value for money, healthiness, cooking options, and whether or not the whole family will eat.
 - The consistency of the quality of lamb is equal to that of chicken.



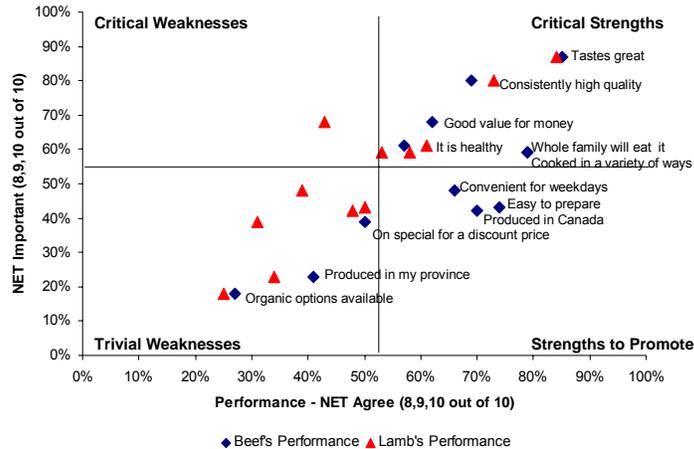
q3a. (Chicken / Lamb: Top 3 Box Summary) Please indicate the extent to which you agree with each of the following statements, for each of the following types of meat. Please use a scale from 1 to 10, where 1 means Completely disagree and 10 means Completely agree. Base: Have eaten lamb in the past 12 months. n=981

36



Comparison of beef and lamb

- Beef also outperforms lamb in every key decision criteria except consistency of the quality and healthiness.



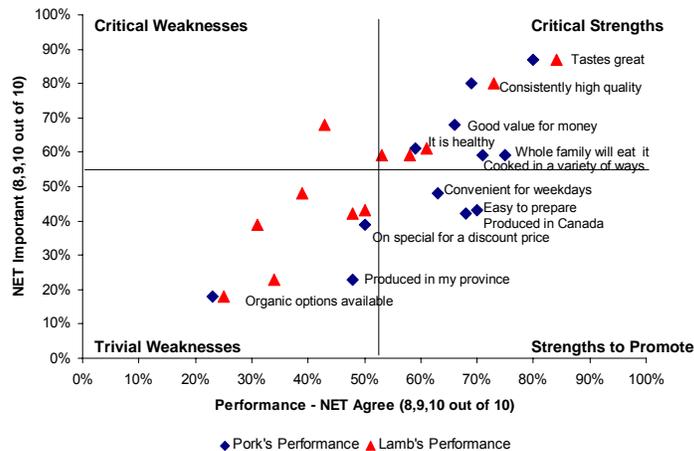
q3a. (Beef / Lamb: Top 3 Box Summary) Please indicate the extent to which you agree with each of the following statements, for each of the following types of meat. Please use a scale from 1 to 10, where 1 means Completely disagree and 10 means Completely agree. Base: Have eaten lamb in the past 12 months: n=981

37



Comparison of pork and lamb

- Lamb is perceived as being just as good, if not better than pork, in terms of taste, consistency of the quality and healthiness.
- In all other important aspects, however, pork is perceived as being superior.



q3a. (Pork / Lamb: Top 3 Box Summary) Please indicate the extent to which you agree with each of the following statements, for each of the following types of meat. Please use a scale from 1 to 10, where 1 means Completely disagree and 10 means Completely agree. Base: Have eaten lamb in the past 12 months: n=981

38



Comparison of performances

- Despite performing on par with the other meat categories in consumers' two most important decision criteria, lamb is underperforming in virtually every other factor.
 - Lamb's most critical weaknesses is that it is not perceived as good value for money but it also needs to improve its perceptions in terms of healthiness, whether the whole family will eat it, the variety of ways it can be cooked, convenience and ease of preparation.

Ranking	Decision Criteria	Performance			
		Chicken	Beef	Pork	Lamb
1	Tastes great	85%	85%	80%	84%
2	Consistently high quality	69%	69%	69%	73%
3	Good value for money	69%	62%	66%	43%
4	It is healthy	79%	57%	59%	61%
5	Whole family will eat it	83%	79%	75%	58%
6	Cooked it in a variety of ways	85%	79%	71%	53%
7	Convenient for weekdays	75%	66%	63%	39%
8	Easy to prepare	77%	74%	70%	50%
9	Produced in Canada	70%	70%	68%	48%
10	On special for a price discount	52%	50%	50%	31%
11	Produced in my province	52%	41%	48%	34%
12	Organic options available	37%	27%	23%	25%

q3c. (Top 3 Box Summary: 8,9,10 out of 10) Please indicate the extent to which you agree with each of the following statements, for each of the following types of meat. Please use a scale from 1 to 10, where 1 means Completely disagree and 10 means Completely agree .
 Base: Have eaten Lamb in the past 12 months: n=981

39



Lamb's performance on meeting consumers' needs

- Not surprisingly, those that eat lamb at anytime have a better impression of it than those that eat it mainly at special occasions or weekends.
 - In particular, those that eat it at anytime are more like to feel lamb is convenient for weekday meals and it can be cooked in a variety of ways.
 - This suggests that other consumers may benefit from some education around how to prepare lamb.

	Primarily Special Occasions A (n=215)	Primarily Weekends B (n=283)	Anytime C (n=483)
Base: Have eaten Lamb in the past 12 months	(n=215)	(n=283)	(n=483)
It is easy to prepare	38%	51% A	54% A
It is consistently of high quality	69%	75%	72%
It is a healthy food option	56%	58%	65% A
It is convenient for weekday meals	27%	30%	49% AB
It is good value for the money	34%	43% A	46% A
It tastes great	79%	85%	85% A
It is produced in my province	33%	30%	37%
It is produced in Canada	50%	44%	49%
Organically raised options are available	21%	24%	27%
My whole family will eat it	56%	59%	58%
It is offered on special for a price discount	28%	31%	32%
I can cook it in a variety of ways	40%	51% A	59% AB

q3c. (Lamb: Top 3 Box Summary: 8,9,10 out of 10) Please indicate the extent to which you agree with each of the following statements, for each of the following types of meat. Please use a scale from 1 to 10, where 1 means Completely disagree and 10 means Completely agree

40



Lamb's performance

- Consumers that eat lamb primarily at home have a more positive impression of it, overall.
 - Most notably, they find lamb to be easier to prepare, consistently of higher quality, convenient for weekday meals, their whole family will eat it and they can cook it in a variety of ways.

	Primarily at Home A (n=766)	Primarily at Restaurants B (n=136)	Both at Home and at Restaurants C (n=79*)
Base: Have eaten Lamb in the past 12 months	(n=766)	(n=136)	(n=79*)
It is easy to prepare	54% BC	37%	38%
It is consistently of high quality	75% B	57%	71%
It is a healthy food option	63%	54%	57%
It is convenient for weekday meals	42% B	26%	30%
It is good value for the money	45% BC	35%	33%
It tastes great	86% BC	79%	75%
It is produced in my province	34%	30%	39%
It is produced in Canada	47%	46%	56%
Organically raised options are available	25%	24%	24%
My whole family will eat it	62% B	41%	52%
It is offered on special for a price discount	33% B	24%	24%
I can cook it in a variety of ways	57% BC	32%	43%

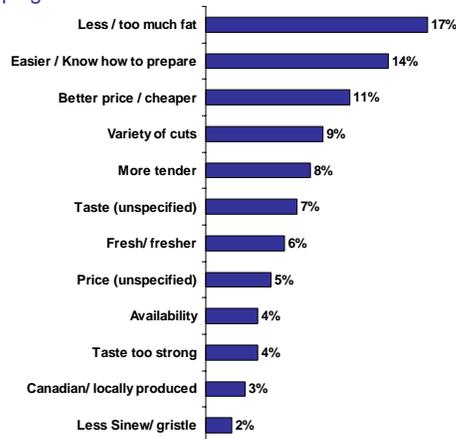
q3c. (Lamb: Top 3 Box Summary: 8,9,10 out of 10) Please indicate the extent to which you agree with each of the following statements, for each of the following types of meat. Please use a scale from 1 to 10, where 1 means Completely disagree and 10 means Completely agree.

41



Main areas to improve in order to be completely satisfied

- Improving the perception that lamb is “fatty” could address the biggest area of dissatisfaction among lamb eaters.
- There is also a lack of knowledge of how to prepare it, further suggesting that an education campaign could be beneficial.

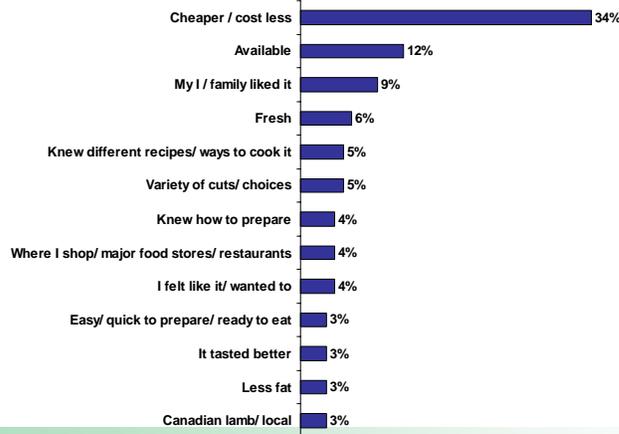


q15. What are the main areas in which lamb needs to be improved, in order for you to be completely satisfied
 Base: Have eaten lamb in the past 12 months and less than completely satisfied: n=333

42

Requirements for consumers to eat more lamb

- Among consumers currently eating lamb, the biggest barrier to increased lamb consumption is clearly the price.
 - Consumers are eating the premium cuts and, therefore, are paying more than they would pay for other cuts. Creating awareness and education around the optimal usage of the cheaper cuts, may improve the perception that lamb is too expensive and increase consumption.



q20. I would eat more lamb if ...
 Base: Have eaten lamb in the past 12 months: n=981

43

I would eat more lamb if...

- Price is the primary barrier to increased lamb consumption for all segments but particularly for those that are already eating lamb at anytime.
- Those that eat lamb mainly at special occasions, do not know how to prepare it, suggesting that a marketing campaign is needed to make them aware of the different products and how to prepare them.

	Primarily Special Occasions A	Primarily Weekends B	Anytime C
Base: Have eaten lamb in the past 12 months	(n=215)	(n=283)	(n=483)
Cheaper / cost less	30%	28%	39% AB
Available	10%	14%	13%
My I / family liked it	13% C	9%	7%
Fresh	3%	7%	6%
Knew different recipes/ ways to cook it	7%	3%	6%
Variety of cuts/ choices	6%	6%	5%
Knew how to prepare	7% C	4%	4%

q20. I would eat more lamb if ...

44



I would eat more lamb if...

- Especially, amongst the “at home” market, cost is the biggest barrier to increased lamb consumption.
- Among those eating lamb primarily at restaurants, however, there is also lack of understanding of how to prepare lamb, further suggesting that promotional materials need to educate consumers about how to cook lamb.
 - They are also inhibited by the fact that they their family does not like it.

	Primarily at Home A (n=766)	Primarily at Restaurants B (n=136)	Both at Home and at Restaurants C (n=79*)
Base: Have eaten lamb in the past 12 months	(n=766)	(n=136)	(n=79*)
Cheaper / cost less	36% B	22%	27%
Available	13% C	14% C	5%
My I / family liked it	7%	18% A	10%
Fresh	6%	6%	5%
Knew different recipes/ ways to cook it	5%	7%	3%
Variety of cuts/ choices	5%	7%	3%
Knew how to prepare	2%	15% A	6% A

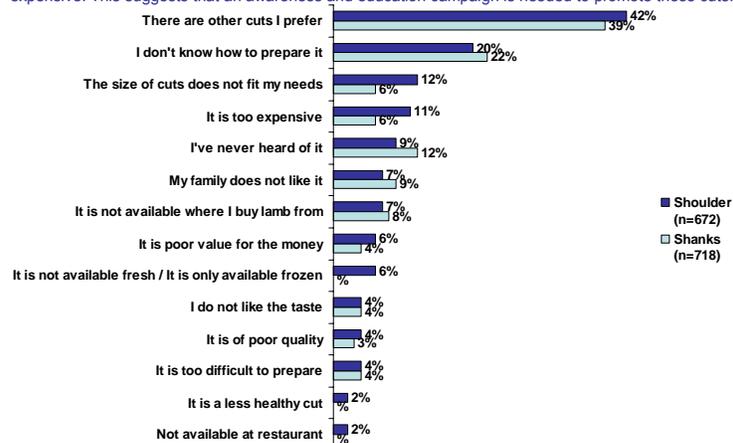
q20. I would eat more lamb if ...

45



Reasons for not eating lamb shoulders and shanks

- Consumers do not readily eat lamb shoulders and shanks because there are other cuts that they prefer.
 - Specifically, consumers do not know how to prepare them, the size does not fit their needs and they are too expensive. This suggests that an awareness and education campaign is needed to promote these cuts.



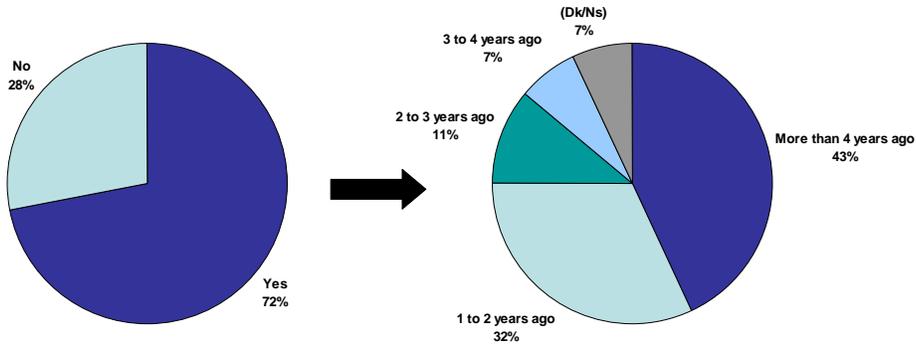
q16a. What are the main reasons that you did not eat lamb shoulder, in the past 12 months?
 Base: Have eaten lamb shoulder in the past 12 months: n=672

46



Last time non-lamb eaters ate lamb

- The majority of consumers that have not eaten lamb in the past 12 months, have eaten it at some point in their lives.
 - For nearly half of them, however, it has been more than 4 years since they last ate lamb.



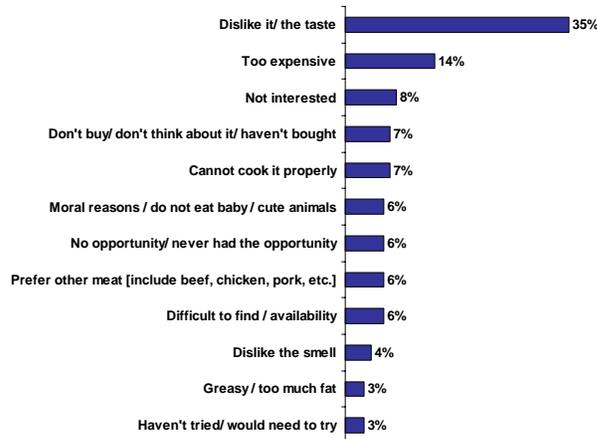
q21. Have you ever, in your entire life, eaten lamb? Base: Have not eaten lamb in the past 12 months: n=2472
 q22. When was the last time that you ate lamb? Base: Have not eaten lamb in the past 12 months but has eaten lamb before: n=1792

47



Reasons for non-lamb eaters not eating lamb

- The biggest barrier to growing the market for lamb with non-lamb eaters is the taste, suggesting there is very little opportunity within this group of consumers.



q23. What are the main reasons that you have not eaten lamb in the past 12 months?
 Base: Have not eaten lamb in the past 12 months: n=2472

48



Implications

- The consumption of lamb is still quite minimal given the extremely high satisfaction with it, which suggests there are some underlying weaknesses in the perceptions of it beyond just its core product features such as taste and quality.
- The perception that lamb is poor value for money must be addressed if lamb is going to compete for a greater share of consumers' wallets and become a more common meal in Canadian houses.
- In order to compete with chicken, beef, and pork, lamb will need to be heavily marketed in order to change consumers' perceptions with regards to convenience, cooking options and ease of preparation.
 - Consumers need to be educated about how to prepare lamb and persuaded that it is ideal for anytime and not just special occasions.
 - This is especially true for the cheaper cuts like shoulders and shanks, that consumers admit to being uncomfortable preparing themselves.
 - Furthermore, if those most preferred cuts, like chops, ribs and legs, can be offered with additional processing such as seasoning, it will directly address the need for easy preparation and convenience for weekday meals.

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Implications

- Despite being considered as healthy, if not healthier, than beef and pork, lamb is considered to be "fatty". Promoting leaner cuts may appeal to this health conscious segment and assist in competing with chicken.
- Lamb eaters tend to favour the premium, and therefore more expensive, cuts of lamb. Some of these cuts, like chops and ribs, are relatively easy to prepare and therefore can be leverage to promoted lamb as an "anytime" meal.
 - It may also be useful to determine what opportunities exist, if any, for the cheaper cuts.
- Non-lamb eaters offer very little opportunity to grow the market since they have typically tried lamb at some point in their life and did not liked it.

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Detailed Findings – Perceptions of Canadian and Imported Lamb

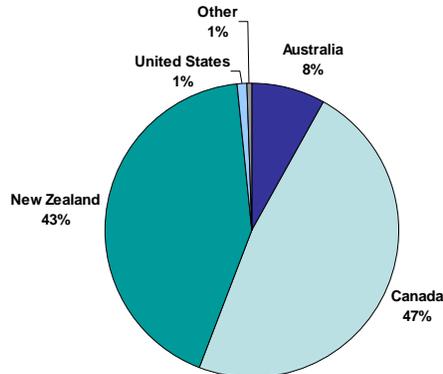


51



Share of lamb sales in Canada

- Fully three-quarters (76%) of lamb eaters could not identify the proportion of lamb that they consume from each country of origin, indicating a definite lack of brand awareness.
 - Among those that could estimate it, however, Canadian and New Zealand lamb are the clear leaders in terms of market share.

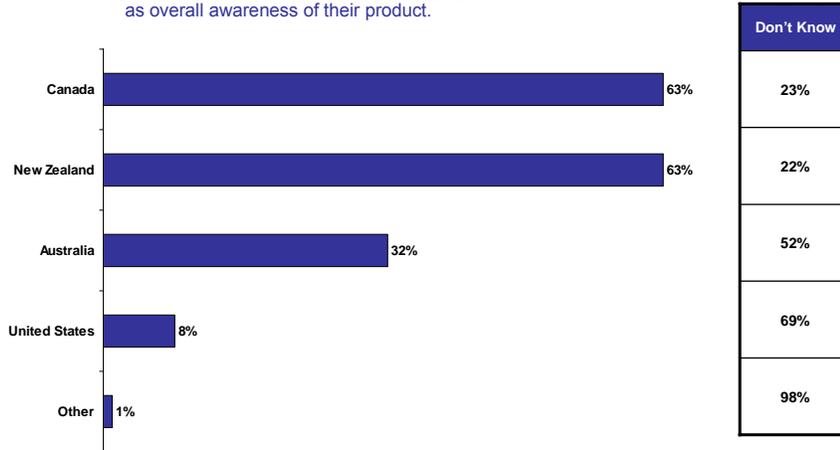


q17. (Means Summary) Thinking of the different countries that produce lamb, what proportion of the lamb that you have purchased in the past 12 months, was produced in each of the following countries?
Base: Have eaten lamb in the past 12 months (Total answering): n=233

52

Perceptions of lamb quality from different countries

- Canadian lamb is perceived to be of excellent quality and just as good as New Zealand lamb.
 - Australian and American lamb are lagging behind both in terms of its perceived quality, as well as overall awareness of their product.

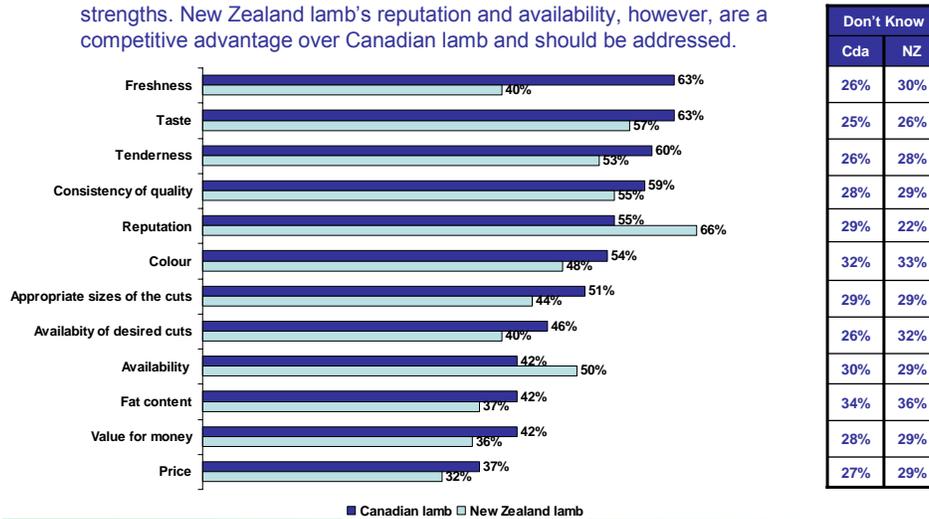


(Top 3 Box Summary) q18. Thinking of the different countries that produce lamb, how do you perceive the overall quality of the lamb from each of these countries? Please use a scale from 1 to 10, where 1 means 'Poor quality and 10 means 'Excellent quality'. Base: Have eaten lamb in the past 12 months. n=981

53

Comparison of Canadian and New Zealand lamb

- Canadian lamb's freshness, taste and tenderness can all be marketed as core strengths. New Zealand lamb's reputation and availability, however, are a competitive advantage over Canadian lamb and should be addressed.

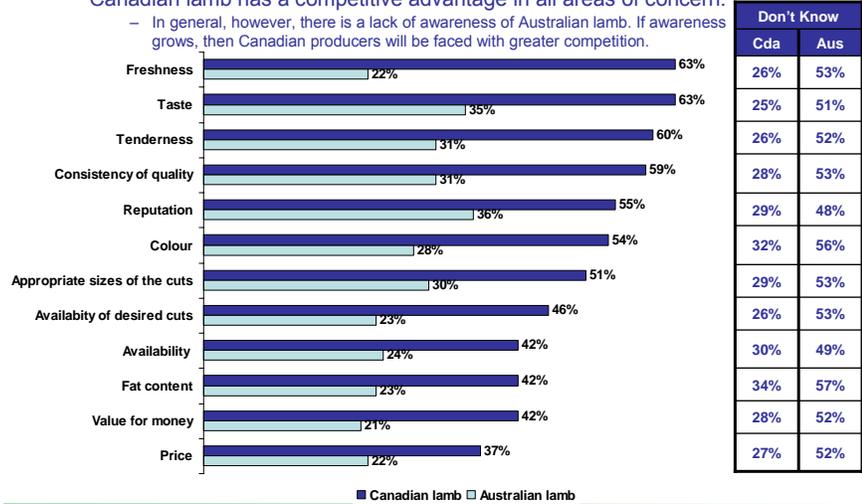


q19a. (Canada/New Zealand: Top 3 Box Summary: 8,9,10 out of 10) Based on your own experience and/or your overall impressions, please rate the lamb produced in Canada on each of the following factors. Please use a scale from 1 to 10, where 1 means Very poor and 10 means Excellent. Base: Rated Canada: n=981; Rated New Zealand: n= 500

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Comparison of Canadian and Australian lamb

- Canadian consumers do not have as positive an impression of Australian lamb and Canadian lamb has a competitive advantage in all areas of concern.
 - In general, however, there is a lack of awareness of Australian lamb. If awareness grows, then Canadian producers will be faced with greater competition.



q19a. (Canada/Australian: Top 3 Box Summary: 8,9,10 out of 10) Based on your own experience and/or your overall impressions, please rate the lamb produced in Canada on each of the following factors. Please use a scale from 1 to 10, where 1 means Very poor and 10 means Excellent. Base: Rated Canada: n=981; or Rated Australia: n= 481

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Comparison of international lamb

- The strong perceptions of Canadian lamb's freshness, taste, tenderness and consistency of the quality can all be leveraged in a brand awareness and equity campaign in order to promote and enhance the reputation of Canadian lamb.
 - This may also help to make consumers more aware of it in the grocery stores.

Factor	Performance		
	Australian	New Zealand	Canadian
Freshness	22%	40%	63%
Taste	35%	57%	63%
Tenderness	31%	53%	60%
Consistency of quality	31%	55%	59%
Reputation	36%	66%	55%
Colour	28%	48%	54%
Appropriate sizes of the cuts	30%	44%	51%
Availability of desired cuts	23%	40%	46%
Fat content	23%	37%	42%
Availability where I do most of my grocery shopping	24%	50%	42%
Value for money	21%	36%	42%
Price	22%	32%	37%

q19abc. (Top 3 Box Summary: 8,9,10 out of 10) Based on your own experience and/or your overall impressions, please rate the lamb produced in [Canada/New Zealand/Australia] on each of the following factors. Please use a scale from 1 to 10, where 1 means Very poor and 10 means Excellent.

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Implications

- There is a real lack of awareness or ability to detect the country of origin of the lamb consumers are eating. In such an unbranded market, there may be an opportunity to create a more prominent Canadian or regional brand(s) in order to increase awareness of Canadian lamb and drive sales.
- Despite performing as well, if not better, than New Zealand lamb on core product attributes such as taste and quality, New Zealand continues to have the superior reputation. Consumers do not differentiate enough between these two products, however, to support this reputation. So, Canadian lamb can be promoted as being superior to that of New Zealand.
- New Zealand lamb is also perceived as being more readily available in Canada, which highlights the need for a more distinct Canadian or regional branding as well as stronger relationships with distribution channels in order to get Canadian lamb products in more grocery stores.
- Compared to the international competition, Canadian lamb is extremely well perceived and its freshness, taste, consistency of quality, and tenderness can all be leveraged in order to drive sales of Canadian product.
- Australian lamb is widely unheard of in Canada. Those that are aware of it, however, generally have positive impressions of it. If awareness continues to grow, Canadian lamb can expect to face further international competition.

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Recommendations

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Recommendations

- Fundamentally, there are no glaring weaknesses with the physical aspects of lamb, such as taste, quality, or fattiness. Rather, the problem is one of consumer awareness, perceptions and education that are best addressed through a multifaceted marketing campaign.
- First, lamb will need to be promoted as a meat that is ideal for anytime, in order to break the stigma that it is a specialty meal only. Overall, this should increase the consumption of lamb at home, which is the critical growth market opportunity.
 - There is little opportunity, however, from focusing on non-lamb eaters as they have typically tried it at some point in their lives and did not like.
- Lamb's taste and consistency of quality can be leveraged to promote lamb as an "anytime" meal that is an alternative to beef, chicken and pork.
- Successfully competing with these other meats, however, will also require changing the perception that lamb is more expensive and offers less value for money.

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Recommendations

- Marketing efforts must also consider that consumers are generally unaware of how to prepare lamb, especially the lesser value cuts like lamb shanks and shoulders. If it is desired for consumers to consume more of these types of cuts, efforts are needed to first make consumers aware of them and then educate them on how to they should be prepared.
 - Processing some cuts further to include seasonings for simple recipes will not only make lamb easier to prepare for those that do not know how but it will make lamb more convenient overall and add additional value that could improve the overall value perception of lamb.
- Finally, a unified-national branding strategy would really raise awareness of Canadian product and more aggressively compete New Zealand lamb. The taste, freshness, quality and tenderness of Canadian lamb can be leveraged to help build the national reputation.
 - Particular attention must also be paid to the availability of Canadian lamb through retail channels.
- Promotional efforts must keep in mind that while older consumers currently comprise the largest portion of lamb eaters, younger consumers should be a core marketing focus.
- It can also be anticipated that the unless the whole family is eating lamb, some households will find it a challenge to significantly increase their lamb consumption.
 - Unfortunately, this is a barrier that can not be addressed directly but a more active promotional campaign may minimize the households with individuals that will not eat lamb.

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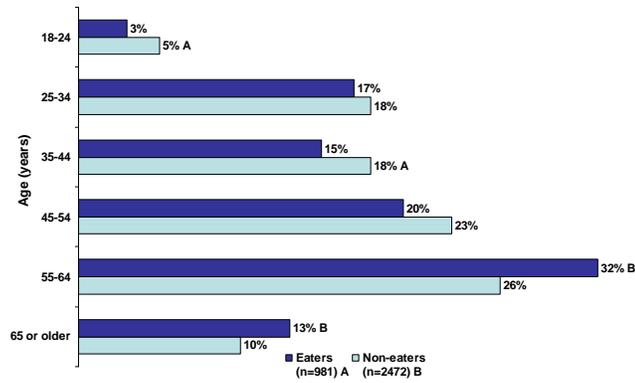


Appendix – Demographics



Age

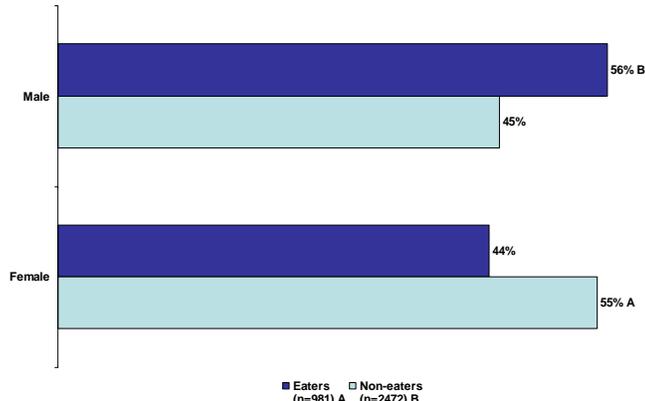
➤ Lamb eaters tend to be older than non-lamb eaters.



•Base: All respondents: n=3453

Ipsos **Gender**

➤ Lamb eaters are more likely to be males than non-lamb eaters are.

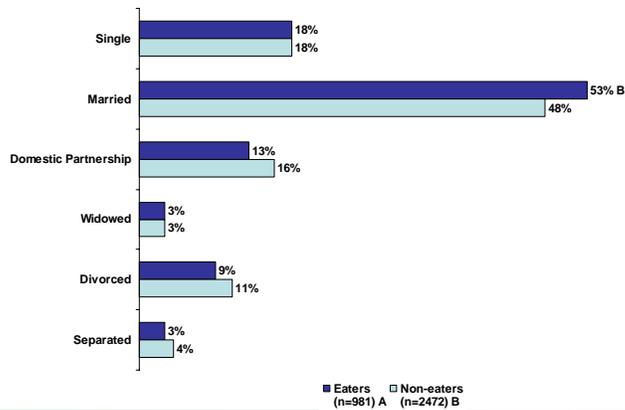


Base: All respondents: n=3453

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Ipsos **Marital status**

➤ There is little difference in marital status between lamb eaters and non-eaters.

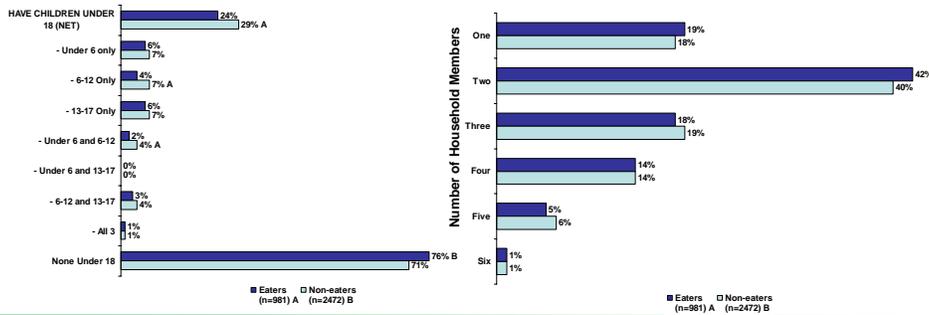


•Base: All respondents: n=3453

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Ipsos Presence of children and household size

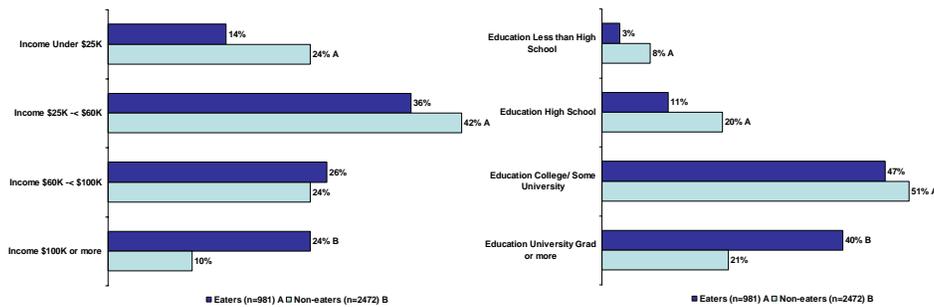
- While lamb eaters are slightly more likely to come from households with no children under the age of eighteen, the overall size of the household does not seem to be related to lamb consumption.



Base: All respondents: n=3453

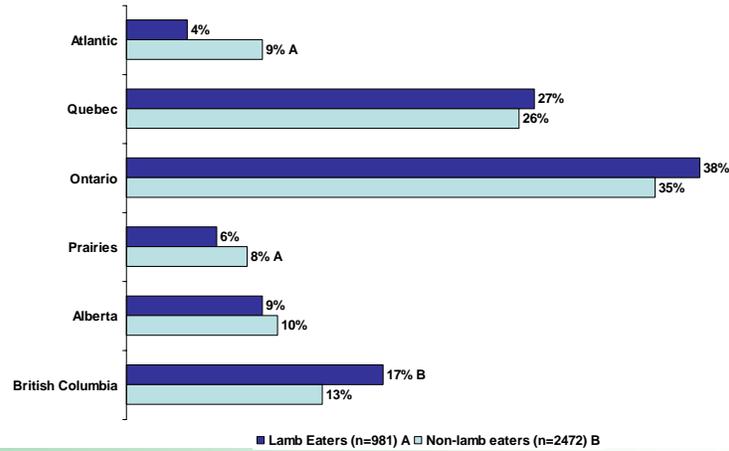
Ipsos Income

- Lamb eaters tend to come from more affluent and more highly educated households than those that do not eat lamb.



Total: n=3453

Ipsos **Region**



Total: n=3453

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Ipsos **For more information...**

For more information about *this* research, contact....

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Appendix C – Final CSF Market Opportunity Letter and Questionnaire (processors, retail, foodservice)

Market Opportunity Analysis for Canadian Lamb

The lamb industry is changing. Canadian sheep farmers are producing larger volumes of lamb, produced to suit market demands and traded on a wider international scale than ever before. Globally, greater emphasis is being placed on accessing information surrounding consumer demands, then working with the entire supply chain to develop capabilities required to act upon that information for sustainable competitive advantage.

With retaining market share and added value opportunities against increasingly capable international suppliers a significant challenge facing the Canadian lamb industry, the George Morris Centre has been engaged by the Canadian Sheep Federation to assess challenges and opportunities facing the Canadian lamb industry. To date we have reviewed changes occurring in the global lamb industry, along with a comparison of the Canadian, New Zealand, Australia and United States lamb industries. Using Ipsos-Reid's on-line consumer panel, research was also conducted to identify Canadian consumers' perception and attitude toward Canadian and imported lamb.

To augment those findings, and to provide a series of recommendations that the Canadian lamb industry can act upon to improve the industry's overall competitiveness, we are consulting individual stakeholders to gain further insights into opportunities and challenges facing the Canadian lamb industry. This process will enable an assessment of the readiness of the Canadian lamb industry to take advantage of market opportunities in comparison to its most significant competitors. It will also assist in identifying how producers can more effectively work with processors, retailers and foodservice operators to supply desired lamb and lamb products to consumers in order to maintain a prosperous Canadian lamb industry.

As an informed and respected member of the Canadian agri-food industry involved in supplying lamb to consumers through the retail and/or foodservice market, we are seeking your insights and expertise into the relative effectiveness of operations conducted along the chain in relation to meeting market demands. As well as understanding the comparative effectiveness of operations performed in the supply of Canadian versus imported lamb and lamb products to retail and foodservice customers.

A member of our research team will contact you by telephone to determine when you are available for an interview that we expect will take 30-35 minutes of your time. If time does not permit an interview, the survey can be completed as a questionnaire and returned to us by email or fax. Please advise if we should be contacting another individual from your organization.

All information collected will be held in the strictest confidence. When the data provided is analyzed, your questionnaire will be given an identification number, i.e., person or organization names will never be used. Only selected members of our research staff will see the individual questionnaires.

We thank you in advance for your cooperation.
Sincerely,



Martin Gooch, MAgribus
Research Associate – Value Chains

Name, Position and Organization	Mailing Address	Telephone and Email

1) What term best describes your operation?

- Retailer
 Foodservice
 Primary Processor
 Secondary Processor
 Other

If *other* please describe _____

2a) With which area(s) of retail and/or foodservice industry do you work the most?

- Grocery Stores (*i.e. Loblaws, Dominion*)
 Discount Grocery Stores (*i.e. FoodBasics*)
 Specialty Grocery Stores (*i.e. Ethnic*)
 Mass Merchandisers (*i.e. Zellers, Wal-Mart*)
 Butchers shops
 Farm shops
 Fine Dining Restaurants
 Family Style Restaurants
 Fast Food Restaurants
 Other

If *other* please describe _____

2b) What is the current location, size and/or capacity of your operations?

2c) If retailer / foodservice: How would you describe your target consumer demographic?

or

If primary or secondary processor: Who are your main customers and markets?

2d) Who are your major lamb suppliers?

2e) From where is the majority of this lamb sourced?

3a) In what form do you purchase the majority of lamb from your customer(s)?

- | | | |
|---|---|---|
| <input type="checkbox"/> Live | <input type="checkbox"/> Half or full carcass | <input type="checkbox"/> Primal (boxed) |
| <input type="checkbox"/> Primal (tray-packed) | <input type="checkbox"/> Value-added | <input type="checkbox"/> Semi-prepared |
| <input type="checkbox"/> Partially-cooked | <input type="checkbox"/> Fully-cooked | <input type="checkbox"/> Other |

If *other* please describe _____

3b) What percentage of your lamb purchases does each product type represent in terms of volume?

3c) What percentage of your lamb purchases does each product type represent in terms of value?

3d) Have you changed your geographic source, or suppliers of lamb, because of factors surrounding quality or availability? If so, why?

3e) In terms of percentage of your overall red meat purchases, what does lamb represent in terms of value and volume?

3f) How often do you experience shortages of products that you are seeking to purchase? Please explain in terms of volume, regularity, and estimated value; and reasons for any shortfall.

4a) In what form do you sell lamb to your customer(s) or consumer(s)?

- Half or full carcass Primal (boxed) Primal (tray-packed) Value-added
 Semi-prepared Partially-cooked Fully-cooked Other

If *other* please describe _____

4b) What percentage of your lamb sales does each product type represent in volume?

4c) What percentage of your lamb sales does each product type represent in value?

4d) In terms of percentage of your overall red meat sales, what does lamb represent in terms of value and volume?

4e) How often do you experience demand for lamb or lamb products that you are unable to supply? *Please explain in terms of volume, regularity, and estimated value; and the reasons for any shortfall.*

5a) The majority of Canadian lamb is processed through provincial rather than federally inspected facilities. In your opinion, does this limit the market opportunities for Canadian lamb compared to imported lamb or lamb products? *Please explain the reason for your answer.*

5b) If federally inspected Canadian lamb was widely available, how much more would you expect to purchase than is currently the case?

6) Do you see any difference (positive or negative) between suppliers of Canadian versus New Zealand or Australian lamb regarding:

6a. Supply (*i.e. volume, consistency, seasonality, dependability*)

6b. Quality (*i.e. grading, packaging, presentation, cut size, adhering to specifications, or consistency in terms of any of these issues*)

6c. Price (*i.e. terms of payment, length of price agreements, fluctuation, forecasting, reflection of quality*)

6d. Merchandizing Support (*i.e. in-store demos, product advice, recipe cards, shelf talkers*)

6e) Overall trading relationships and willingness to share information (i.e. relating to products, merchandizing practices, consumer research, or strategic issues)

6f) To what extent have any of the factors that you identified above changed over the last five years? What do you believe are the drivers of this change?

7a) Are you aware of the Canadian Lamb and Mutton Grading Standards?
 Yes No

7b) Do you agree with grading lamb carcasses on the basis of saleable meat yield?

7c) Do you feel that these standards adequately assist directing the supply of Canadian lamb and mutton to appropriate markets through differentiating carcasses according to size and quality?

7d) Do you have any suggestions regarding improvements to current grading standards?

7e) Do you pay your suppliers on the basis of a quality Grid?
 Yes No

7f) If yes, do you pay premiums based on quality parameters?
 Yes No

7g) If yes, what are those quality parameters?

7h) Would you be willing to confidentially share your grid with the George Morris Centre?
 Yes No

7i) What do you feel are the ideal components of a settlement grid?

8a) What do you consider the biggest challenges facing the Canadian lamb industry, particularly compared to a) New Zealand, and b) Australian suppliers of lamb?

8b) How do you believe that the Canadian lamb industry should address any challenges that you identified?

9a) What do you consider to be the greatest market opportunities available to the Canadian lamb industry?

9b) How do you believe that the Canadian lamb industry could best take advantage of these market opportunities?

10) Do you have any anecdotal evidence of the effectiveness (or lack of) activities performed in the Canadian lamb industry compared to other red meats?

The George Morris Centre thanks you for your time and interest.

Appendix D - Final Survey Insights (processors, retail, foodservice)

1. Number of respondents approached.

	Retail	Food Service	Primary Processor	Secondary Processor	Total
Eastern	1	1	1	1	4
Quebec	2	2	4	4	12
Ontario	5	6	8	6	25
Prairie	2	4	3	2	11
British Columbia	2	2	4	2	10
Total	12	15	20	15	62

2. Percentage approached who responded

	Retail	Food Service	Primary Processor	Secondary Processor	Total
Approached	12	15	20	15	62
Responded	8	9	10	5	32
% success	66.6	60	50	33.3	51.6

3. Location of respondents by province

Location of Respondents by Province, Actual Numbers

	Retail	Food Service	Primary Processor	Secondary Processor	Total
Eastern	-	1	1	-	2
Quebec	1	-	-	3	4
Ontario	4	6	4	1	15
Prairie	1	2	3	1	7
British Columbia	2	-	2	-	4
Total	8	9	10	5	32

Location of Respondents by Province, Percentages

	Retail	Food Service	Primary Processor	Secondary Processor	Total
Eastern	-	3.1	3.1	-	6.3
Quebec	3.1	-	-	9.4	12.5
Ontario	12.5	18.8	12.5	3.1	46.9
Prairie	3.1	6.3	9.4	3.1	21.9
British Columbia	6.3	-	6.3	-	12.5
Total	25	28.1	31.3	15.6	100.0

4. Amount (volume and value) of average lamb sales - weekly and annually
 o By sector

Percent of respondents to this question:

Volume: 18.7% responded - Average amount of sales in volume that were from lamb was 94%

Value: No responses – but most indicated value and volume were the same, so is possible to say the same that was said for volume.

Primary Processors only:

- Percentage of lamb processing capacity currently utilized – 4/9 primary processors have the capacity to or are producing more than 500 head of lamb a week. 6/10 were small processors
- Sourcing policy – why they have changed their source of lamb and any reasons why approach taken
 - Two processors indicated that he/she changed geographic source of supply.
 - In one case, they have expanded their region – from Nova Scotia to include NB and PEI – because could not source enough from Nova Scotia alone
 - In second case, now source exclusively from Ontario because of capacity growth in Ontario
- Percentage and volume (if known) of sales in:
 - Live or Half or full carcass –
 - 9 responses indicated live or half or full carcass. Four responded to the volume and value of sales – this amounted to between 75-100%
 - Boxed primal – 1 indicated that primal was 100% of value and volume of sales
- Loss in sales due to supply shortages – was not a numerical question; anecdotal
 - 70% indicated that they had experienced supply shortages at least once a year
 - 4 said spring was a major problem for finding supply
 - 1 said accounted for a loss of 20-30% of sales
 - One said once a year due to border closings
 - One indicated that any major holiday, Christmas, Easter
 - 30% indicated that shortage in supply was rarely, if never a problem. These respondents generally supplied their own lamb.
- **Processors only:** Percentage that purchase lamb on a settlement grid
 - 50% of respondents indicated they purchased lamb on a settlement grid
 - Of those 50%, 80% indicated that it was based on quality, while 20% did not answer the question
 - 20% of respondents said they did not purchase based on quality grid
 - 30% of respondents did not answer this question
- 5. **All respondents** Respondents that believe lack of federal processing facilities impact market opportunities for Canadian lamb:
 - By overall %: 25% indicated yes (37.5% did not answer)
 - Largest percent of respondents who indicated it was a problem were primary processors
 - Main comments / reasons / factors
 - Limits Ontario suppliers to some extent, and will have larger impacts when borders open up
 - Majority of federal plants not set up for lamb, and are not interested in doing so.
 - Is a political problem when marketing to store chains – large store chains won't necessarily deal with provincial plants
 - Additional demand by:

- Of those who said that the lack of federal processing facilities impact market opportunities for Canadian lamb – 22% indicated that they would purchase more lamb if federally inspected was more widely available.
 - Factors of consideration include: it would depend on the cost; would need to be able to secure more volume; Canadian carcasses better quality and taste

6. Retail only:

- Source of lamb (Cdn, NZ, Oz) by:
 - 25% sourced solely from Canada (Ontario)
 - 37.5% sourced from New Zealand (at least 95% of product)
 - 37.5% sourced from both Canada and New Zealand
- Product type (eg. chops , racks, legs) purchased by:
 - Product types were identified as half or full carcass, primal boxed and primal tray-packed – fresh, frozen and chilled. This question doesn't really tell us much, because actual cuts were not identified.
- Unmet retail opportunities by:
 - Only one person answered this question, and indicated that never have had problems in obtaining supplies.

7. Foodservice only:

- Source of lamb (Cdn, NZ, Oz):
 - 22% indicated that at least 90% of lamb was Canadian; included small quantities of US, New Zealand or Australian lamb
 - 33% indicated at least 90% of lamb was New Zealand; included small quantities of U.S, Australia or Canadian lamb
 - 22% used a mixture of Canadian and New Zealand lamb – Canadian lamb mainly for special functions and because of taste attributes
 - 22% used a mixture of Canadian, New Zealand, Australian or U.S. lamb

8. How Canadian lamb compares to NZ and Oz lamb on:

• Supply

- 53% of respondents indicated that were problems with Canadian supply with regard to Australian and New Zealand lamb.
- Consistency in Canadian supply a problem
- New Zealand lamb rarely a supply problem, and was quoted a few times as having the best supply
- 28% did not answer this question

• Quality

- 50% or respondents indicated that Canadian lamb quality superior to New Zealand
- Grain fed lamb gives a better taste than grass fed lamb; better flavour
- Customers prefer a local product
- Canadian lamb is fresh
- 37.5% did not answer this question.

• Price

- 40% indicated Canadian lamb more expensive than New Zealand and/or Australian lamb
- 1 person indicated that fresh lamb prices were comparable, but New Zealand frozen lamb much cheaper

- Price was identified as an issue
 - 44% did not answer this question
 - Merchandizing support
 - 25% indicated that merchandising support in Canada was poor
 - New Zealand has brand equity: recipe cards and stickers
 - Little to no advertising and promotion of Canadian lamb in Canada
 - Few comments how merchandizing support not required when sale is direct from seller to purchaser
 - 44% did not answer this question
 - Changes in comparison over the last 5 years
 - 15.6% indicated that they had observed changes in Canadian lamb over the last five years with respect to price, quality, supply, merchandising support and trade relationships. Some of the comments are as follows:
 - New Zealand lamb, while always consistent in quality, has also increased in availability and volume
 - BSE has led to significant market opportunities – smaller producers leaving the industry and this void not being filled by other farmers
 - Canadian farmers producing a more tender lamb, with less fat.
 - Prices for fresh NZ and Canadian lamb have become more comparable
 - Trading relationships
 - Only 13% answered this question. Comments were as follows:
 - Canada is supportive to create markets
 - Open relationships with customers, undertakes extensive analysis with each customer
 - Little information sharing in Canada, but are able to track/view sales
 - New Zealand suppliers have greater passion about filling markets; no attention here (in Canada) paid towards supplying markets for wool and skin products
9. Many respondents indicated that inconsistency in Canadian sheep was a huge problem. The following are some reasons listed:
- Supply – this was quite often stated as a problem. Canadian supply not consistent enough, particularly in comparison to New Zealand supply
 - New Zealand has year round supply, Canada has supply issues, particularly in the Spring
 - Quality – quality of New Zealand was indicated as being very consistent
 - Quality of Canadian lamb not an issue, but the consistency of quality was brought up as an issue, but not as a major issue.
10. Canadian grading standards:
- Percentage of respondents aware of standards: total respondents – 19% of those surveyed said they were aware of the standards; however, 47% did not answer this question
 - Of those aware of the standards, over 80% were processors
 - Percentage of respondents that support current system
 - 9 people answered this question. 8 agree with the system. 1 does not. Says system must be based on quality as well as yield
 - Identified problems with current system
 - Must be based on quality as well as yield
 - Ways to improve current system
 - Make grading mandatory
 - Develop cost effective RFID and tracking systems

- Need to find cost effective and accurate 'readers' (for GR measurements) for small farms; standardized measuring tool
 - Need way to grade based on customers preferences
11. Biggest challenges facing Canadian lamb from NZ and Australia. Broken down by
- Retail
 - Need to make lamb more affordable
 - Costing is not close to New Zealand
 - Whole carcass buying is a barrier; lamb has little priority and little knowledge at store and customer level
 - Supply! And availability
 - Foodservice
 - Marketing is a challenge, especially compared to New Zealand and Australia
 - Lack of consistent supply
 - Need R&D to enable Canadian industry to supply quality, consistency, sizing and price point availability in comparison to New Zealand and Australia
 - Federal inspection; needs to more widely available
 - Awareness of lamb products in the marketplace in Canada
 - Processors
 - Canadian industry not fully developed; lamb mostly a 'sideline' product, a cottage industry
 - Requires more working together between governments and the industry
 - Marketing of Canadian lamb virtually non-existent
 - No comprehensive program of lamb production – lack of government focus on the industry
 - Needs to be federally inspected
 - Canadian lamb has higher input costs and prices
 - Predators are a problem
12. Greatest market opportunities
- Retail
 - Pre-marinating meat
 - Fresh market is a great opportunity
 - Ethnic markets provide an opportunity
 - High end clientele
 - Foodservice
 - Fine dining restaurants and hotels
 - How can Cdn lamb industry take advantage of opportunities
 - Promotion and advertising
 - Utilize fresh markets
 - Ethnic specific advertising and promotion
 - Feature ads
 - Education and media
 - Promote at high profile events
13. Evidence of effectiveness (or not) of Canadian lamb industry versus other red meats sold in Canada
- No where near the support that is observed with other livestock marketing organizations, such as Ontario Pork
 - Lack of joint strategies between provinces, promotional strategies, and sector-based marketing initiatives

-
- Lamb industry is mostly 'mom and pop' businesses that don't have intensive operations and automation
 - Need to increase awareness of lamb through trade shows
 - Need awareness in media
 - Publish recipe cards
 - Lack of branding in the lamb industry from consumer standpoint
 - Market a product that is different from New Zealand and Australian lamb
 - Lamb industry different from other red meats in terms of grading, production and processing arrangements

Appendix E - Final Market Opportunity Letter and Questionnaire (producers)

Market Opportunity Analysis for Canadian Lamb

The lamb industry is changing. Sheep farmers are producing larger volumes of lamb, produced to suit market demands and traded on a wider international scale than ever before. Greater emphasis is being placed on accessing information surrounding consumer demands, and work with the entire supply chain to develop capabilities required to act upon that information for sustainable competitive advantage.

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A member of our research team will contact you by telephone to determine when you are available for an interview that we expect will take 20-25 minutes of your time. If time does not permit an interview, the survey can be completed as a questionnaire and returned to us by email or fax. Please advise if we should be contacting another individual from your organization.

All information collected will be held in the strictest confidence. When the data provided is analyzed, your questionnaire will be given an identification number, i.e., person or organization names will never be used. Only selected members of our research staff will see the individual questionnaires.

We thank you in advance for your cooperation.

Sincerely,



Martin Gooch, MAgribus
Research Associate – Value Chains

Name, Position and Organization	Mailing Address	Telephone and Email

1) What term best describes your operation?
 Feedlot Weaned Lamb Lamb Finishing Breeding Stock Other
 If *other* please describe _____

2a) What numbers of lamb do you market annually in each category?

- Weaned Lambs _____
- Finished Lambs _____
- Breeding Stock _____

2b) If a finisher, where do you source your lambs?

2c) How often do you experience shortages of lambs that you are seeking to purchase?
Please explain in terms of volume, regularity, quality, breed; and reasons for any shortfall.

2d) Do you source lamb on forward contract? (eg prior to season commencing)

2e) Do you look to raise / purchase specific breeds of lamb?
 Yes No

2g) If yes, which breeds and why?

3a) Where do you sell the majority of your lambs?

3b) Are the facilities that you supply: Federally Inspected Provincially Inspected

4a) Do you know which area(s) of retail and/or foodservice industry you are involved in supplying?

- | | |
|---|---|
| <input type="checkbox"/> Grocery Stores (<i>i.e. Loblaws, Dominion</i>) | <input type="checkbox"/> Discount Grocery Stores (<i>i.e. FoodBasics</i>) |
| <input type="checkbox"/> Specialty Grocery Stores (<i>i.e. Ethnic</i>) | <input type="checkbox"/> Mass Merchandisers (<i>i.e. Zellers, Wal-Mart</i>) |
| <input type="checkbox"/> Butchers shops | <input type="checkbox"/> Farm shops |
| <input type="checkbox"/> Fine Dining Restaurants | <input type="checkbox"/> Family Style Restaurants |
| <input type="checkbox"/> Fast Food Restaurants | <input type="checkbox"/> Other |

If *other* please describe _____

4b) How much information is shared with you in terms of how closely your lambs meet identified market demands?

4c) How soon after slaughter is this information shared with you?

4d) On a scale of 1 – 5 (*1 = none at all; 5 = significant*) how valuable is this information for helping you to improve your production / management practices?

Score: _____

Please explain the reasons for your answer:

4e) How could the value of the information be enhanced in a way that would enable you to improve your management practices?

4f) What information do you NOT currently receive that would be beneficial to assisting you improve the management of your operations?

5a) On what type of settlement arrangements are you paid?

- Live On the rail

5b) Do you receive payment on the basis of a quality Grid?

- Yes No

5c) If yes, is it: Base with discount Base with premiums

Please explain:

5d) What are the quality parameters of the pricing grid(s) that you supply through?

5e) Would you be willing to confidentially share this grid with the George Morris Centre?

- Yes No

5f) What do you feel are the ideal components of a settlement grid?

6) The majority of Canadian lamb is processed through provincial rather than federally inspected facilities. In your opinion, does this limit the market opportunities for Canadian lamb compared to imported lamb or lamb products?

7) Do you see any difference (positive or negative) between Canadian versus New Zealand or Australian lamb regarding:

7a. Supply (*i.e. volume, consistency, seasonality, dependability*)

7b. Quality (*i.e. grading, packaging, presentation, cut size, adhering to specifications, or consistency in terms of any of these issues*)

7c. Price (*i.e. terms of payment, length of price agreements, fluctuation, forecasting, reflection of quality*)

7d) To what extent have any of the factors that you identified above changed over the last five years? What do you believe are the drivers of this change?

8a) Are you aware of the Canadian Lamb and Mutton Grading Standards?

- Yes No

8b) Do you agree with grading lamb carcasses on the basis of saleable meat yield?

8c) Do you feel that these standards adequately assist directing the supply of Canadian lamb and mutton to appropriate markets through differentiating carcasses according to size and quality?

8d) Do you have any suggestions regarding improvements to current grading standards?

9a) What do you consider the biggest challenges facing the Canadian lamb industry, particularly compared to a) New Zealand, and b) Australian suppliers of lamb?

9b) How do you believe that the Canadian lamb industry should address any challenges that you identified?

9c) On your farm, which area of production do you feel needs the most improvements? (eg breed, feed rations, marketing)

10a) What do you consider to be the greatest market opportunities available to the Canadian lamb industry?

10b) How do you believe that the Canadian lamb industry could best take advantage of these market opportunities?

11) Do you have any anecdotal evidence of the effectiveness (or lack of) activities performed in the Canadian lamb industry compared to other red meats?

The George Morris Centre thanks you for your time and interest.

Appendix F – Final Survey Responses

1. Location of Respondents by Province, Actual Numbers and Percentage

Actual Numbers

	Feedlot	Lamb Finishing	Breeding Stock	Combination**	Total
Eastern	-	3	-	-	3
Quebec	-	2	-	3	5
Ontario	1	3	2	1	7
Prairie	3	-	-	4	7
British Columbia	-	-	-	4	4
Total	4	8	2	12	26

Percent

	Feedlot	Lamb Finishing	Breeding Stock	Combination**	Total
Eastern	-	11.5	-	-	11.5
Quebec	-	7.7	-	11.5	19.2
Ontario	3.8	11.5	7.7	3.8	26.9
Prairie	11.5	-	-	15.4	26.9
British Columbia	-	-	-	15.4	15.4
Total	15.4	30.8	7.7	46.2	100.0

*A number of producers categorized themselves as more than one of the available choices

2. Lambs Marketed Annually by Category: Weaned, Finished, Breeding

- 8% marketed weaned lamb – ranging from 100 – 1,000 head annually
- 100% marketed finished lamb – ranging from 80 to 60,000 head annually
 - Size of operations broken down into small, medium and large for producers marketing finished lamb. Small is less than 1,000 finished annually, medium is between 1,000 and 10,000 annually and large is greater than 10,000
 - 54 percent were smaller operations, 38 percent were medium sized and 8 percent were larger operations
- 42% marketed breeding lamb

3. Where was the lamb sourced for those operations marketing finished lamb?

- 46% sourced from own farms
- 15% sourced across Canada
- 23% bought from auctions or the market.

4. Producers who source on a forward contract

- No producers source on a forward contract.

5. Where are producers selling their lamb – federal or provincial facilities

- 50% solely to provincially inspected plants

- 23% solely to federally inspected plants
- 12% supplied both
- 15% no response

6. Does the lack availability of federally inspected plants limit market opportunities?

- 54% indicated yes.
 - However, when considering only the number of participants who answered this question, 61% indicated yes.
- 34% said no
- 12% didn't answer

Comments included:

- It is difficult to establish contracts with larger supermarket chains
- Provincial abattoirs should be able to ship inter-provincially – standards should be the same across the board
- Prohibits exporting (supplying to the United States)
- In places such as the Maritimes there is only one federally inspected facility, and thus access to federal processors are limited.
- Shipping live lamb out of province to gain access to federal processors.

7. How Canadian lamb compares to Australian and New Zealand lamb on:

- Supply
 - 81% agreed that there were supply differences between Canadian and New Zealand or Australian lamb
 - New Zealand seen as being more consistent, available year round
 - Consistency in Canadian supply biggest problem
- Quality
 - 65% felt there was a quality difference between Canadian and New Zealand or Australian lamb
 - Majority felt that Canadian lamb better taste quality
 - New Zealand lamb more consistent quality in terms of fat, size, etc.
- Price
 - 65% responded that there was a difference in price between the products
 - Generally, Canadian prices higher, but some felt the price differential was disappearing
 - 11% responded that there was no price difference
 - 23% of respondents did not answer this question
- Have the above factors changed over the last five years?
 - Canadian lamb is improving and becoming more consistent
 - Although, it has also been commented that while the quality of Canadian lamb is getting better, the consistency has not improved at all.
 - The price differential between Canadian and New Zealand is lessening
 - The seasonality of Canadian lamb has diminished
 - There is more imported lamb in supermarkets today than there was five to ten years ago.

- However, it was also commented on that there is now more Canadian lamb in the stores.
- Marketing and presentation of Canadian lamb is improving.
- New Zealand has better adapted to supermarket chains and restaurants by offering boxed meat and specific cuts that are almost in a ready to eat state to sell to the consumer.

8. Awareness of the *Canadian Lamb and Mutton Grading Standards*.

- One person did not answer this question, but for the remaining 25 respondents, it was found that:
 - 56% were not aware of the Standards
 - Only 44% were aware of the Standards
 - Awareness of the Standards did not seem to depend on location

9. Do the current standards adequately direct the lamb and mutton supply to the appropriate markets?

- Based on the 44% of the respondents who are aware of the Standards:
 - 64% agreed that the Standards are appropriate
 - 18% felt that they weren't appropriate.

10. Challenges facing the industry.

- There is a need to produce lamb year round. This may be expensive, but there also advantages, such as the need for less barns.
- Need to provide consistent quality for a particular buyer. Producers need to be aware of the needs of the buyers.
 - Producers need to market to consumers as well.
- There is a need to increase the volume of lamb produced. This ties in with the challenge of producing lamb year round.
- Adequate abattoirs are needed to process lamb.
- Sheep associations, governments and producers need to work together more effectively and more often.
- Predators are a huge challenge for some producers, particularly those in Ontario and Quebec.
- People are leaving the industry, and the void is not being filled. There is a challenge of attracting people to enter the industry.
- Producers are constantly challenged to find available drugs in Canada for the production of lambs. This is a regulatory issue that challenges many livestock industries.
- New Zealand and Australia have lower costs of production, due to winter housing and feed regimes. There is a need to reduce the costs of production in Canada, without compromising quality.
- Lamb products need to be better promoted at the local level. If it is necessary to charge a higher price for the product, promote the fact that it is of higher quality, promote the differentiation of products.
- Efficiency in slaughter and processing. Currently, many processors do not want to dedicate a plant to slaughtering just lamb because it is easier to kill beef, veal, etc.

11. Opportunities for the industry.

-
- Improving quality and capitalizing on consumer health concerns will be an important market down the road.
 - Down the road, consumer interest in health will be a driver that can be addressed through delivery of grass fed lamb with omega-3 and other nutrients
 - Getting more product into grocery stores
 - High end supermarkets
 - Target 'better-off' consumers who are looking for gourmet meat products.
 - There is an opportunity to increase the Canadian flock size.
 - New ethnic markets are growing quickly and largely – particularly Middle East and Far East
 - Potential to export to the United States
 - Increase supply to restaurants and caterers
 - Target high populated areas, such as Montreal, Toronto and Vancouver (high ethnic populations in these cities)
 - Keep supplying niche markets