



The Canadian Sheep Industry Information for Lenders

**Prepared by the Expansion Working Group
Under Sheep Value Chain Roundtable**

Fall 2015



Introduction

- This presentation provides agricultural lenders with production, marketing and economic information on the Canadian sheep industry
- Lenders should contact their provincial sheep industry resources (list of contacts contained in section 9) for further information



Introduction

The Canadian sheep industry offers a unique opportunity for domestic producers and lenders to partner on growing a profitable and sustainable industry. Why is this a viable opportunity?

- Canada produces 45-50% of its domestic consumption; per capita consumption is also increasing
- Declining flock sizes in New Zealand and Australia offer potential for domestic import substitution
- There are no quota requirements and initial capital investment is lower compared to other livestock sectors
- Sheep are an efficient converter of forage to high quality protein



Presentation Design

- This presentation is divided into 9 sections
 - Section 1 - Industry Statistics** (slides 5-16)
 - Section 2 - Productivity Benchmarks** (slides 17-24)
 - Section 3 - Industry Definitions** (slides 25-30)
 - Section 4 - Processing and Food Safety** (slides 31-37)
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 - Section 6 - Marketing** (slides 44-51)
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 - Section 9 - Information Sources** (slides 62-66)

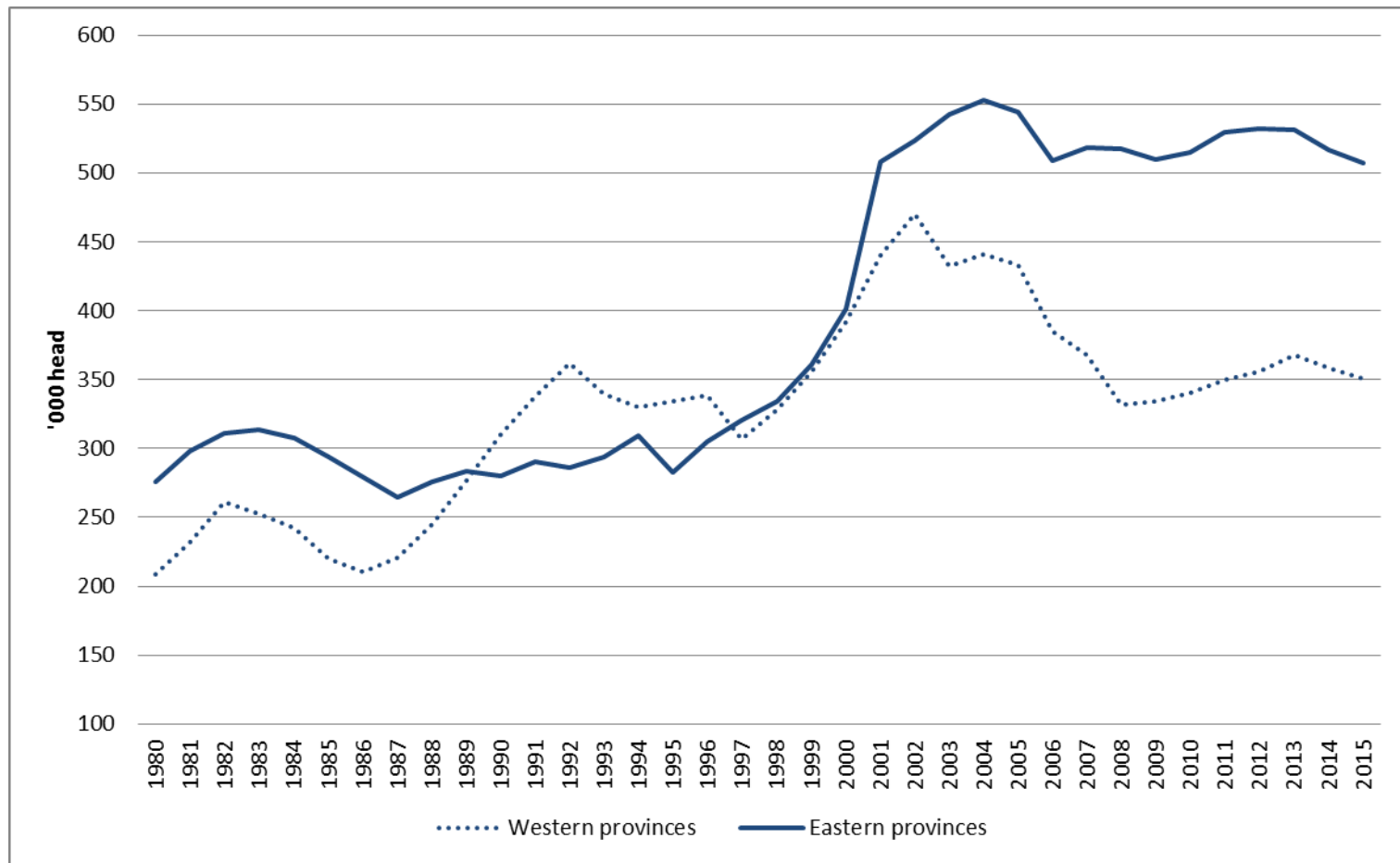


Section 1 - Industry Statistics

- This section provides an overview of the national sheep industry: size, prices, imports and consumption
- Including the potential for growth of the industry based on the interaction of these factors



Canadian Sheep Inventory January 1



Source Statistics Canada, CANSIM, table 003-0031




Canadian Ewe Population, 000 head, 2010-2015

(January 1 estimates)

Province	2010	2011	2012	2013	2014	2015	% change 2010-2015
NL	1.3	1.4	1.2	1.1	1.2	1.2	-8%
PEI	2.9	3.9	3.5	3.6	3.6	3.7	+28%
NS	12.0	12.5	12.6	12.7	13.1	12.9	+8%
NB	3.6	4.1	4.5	4.4	4.4	4.3	+19%
QUE	154.2	149.2	147.0	145.1	143.1	142.1	-8%
ONT	170.9	184.3	185.3	183.6	181.3	177.4	+4%
MAN	30.5	28.8	29.5	31.0	31.0	30.0	-2%
SASK	53.5	56.9	57.2	58.0	57.5	57.2	+7%
ALTA	86.0	90.8	91.5	92.3	91.5	90.5	+5%
BC	25.8	25.3	25.6	25.8	25.0	23.5	-9%
CANADA	540.7	557.2	557.9	557.6	551.7	542.8	+0%

Source Statistics Canada, CANSIM, table 003-0031



of Sheep Farms and Average Sheep per Farm 1986-2011

	1986	1996	2001	2006	2011
E. Canada (Ontario and East)	5761/67	5240/81	5945/107	5296/124	5284/109
W. Canada	5178/61	6550/67	7287/86	5735/84	4827/98
Total	10939/64	11790/73	13232/95	11031/104	10111/110

Source: Statistics Canada

- Average sheep farms are getting larger



Canada and World Production (metric tonnes)

Rank	Country	Quantity (MT)
1	China	2,080,000
2	Australia	556,375
3	New Zealand	448,192
4	Sudan	325,000
5	India	295,800
6	United Kingdom	275,000
7	Turkey	272,000
8	Algeria	261,198
9	Nigeria	173,800
10	Russian Federation	172,974
29	United States	72,938
62	Canada	16,682
	World Total	8,470,307

Canada is 62nd
in terms of sheep
meat production

Source: FAOStats, 2012




Canadian Wool Production and Value 2006-2012

Year	Wool Purchased 000kg	Wool Price \$/kg	Farm Value \$000
2006	1,255.2	0.66	865
2007	1,268.5	0.72	955
2008	1,127.1	0.66	776
2009	1,138.4	0.63	755
2010	1,180.8	0.86	1,062
2011	1,258.8	1.25	1,641
2012	1,175.3	1.24	1,519

Source: Statistics Canada, Table 003-0097

Relatively low value of wool has created a sheep industry in Canada that is largely based on meat production

Seasonal Lamb Prices

Ontario - Lambs to 79lbs (cents per lb)

	2008	2010	2012	2014
January	190	220	251	207
February	189	216	244	211
March	216	252	267	221
April	193	243	308	251
May	191	213	243	222
June	177	178	207	207
July	165	175	174	203
August	166	171	173	201
September	168	177	164	208
October	166	191	179	228
November	170	202	164	218
December	193	243	176	255

Spring = high prices
 Summer = low prices

Legend:
 Green = high
 Red = low

Source: AAFC Red Meat Section



All Sheep Meat Imports 2004-2014 (metric tonnes)

Year	United States	Australia	New Zealand	Total
2004	277	6000	10505	16782
2008	499	5691	14283	20474
2012	215	5081	9886	15216
2013	304	5918	10638	17118
2014	261	7553	10116	18101

Source: Statistics Canada

Given the volume of sheep meat imports, there is an opportunity for growth of the Canadian industry through import substitution




Canada Lamb and Sheep Slaughter Federal and Provincial 2012-2014

Year	West		Ontario		Quebec Atlantic		Canada	
	Fed	Prov	Fed	Prov	Fed	Prov	Fed	Prov
2012	64,820 (40%)	42,069 (12%)	20,325 (13%)	242,410 (68%)	75,096 (47%)	74,406 (21%)	160,241	358,885
2013	71,909 (43%)	49,555 (12%)	23,557 (14%)	278,180 (70%)	73,547 (44%)	72,046 (18%)	169,013	399,781
2014	68,613 (40%)	50,150 (12%)	29,992 (17%)	289,356 (71%)	73,077 (43%)	69,587 (17%)	171,682	409,093

Source: AAFC, Red Meat Section

- Ontario processes roughly 50-55% of the lamb and sheep slaughter
- Federally inspected slaughter is roughly 30% of provincially inspected slaughter on a national basis
- Alberta processes nearly 40% of the federally inspected lamb



Per Capita Protein Disappearance Food available (kg) per person, per year

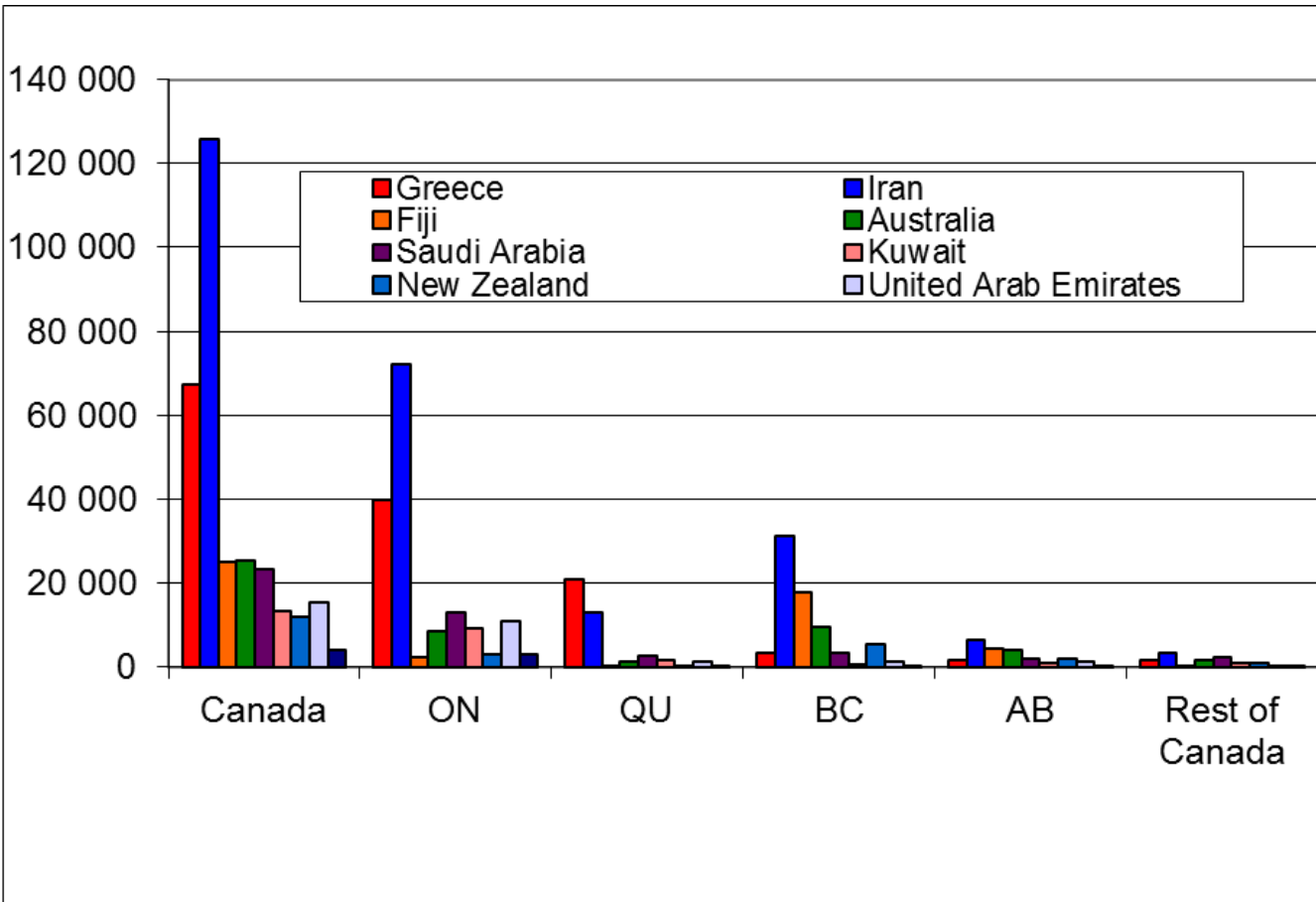
Year	Lamb and Mutton	Beef	Pork	Chicken
2008	1.04	21.72	18.16	30.77
2009	1.03	20.65	17.91	30.59
2010	0.97	20.35	16.76	30.47
2011	0.98	19.90	16.34	30.00
2012	0.86	20.15	16.95	29.77
2013	0.90	19.96	15.87	30.06
2014	1.01	19.33	15.68	30.94
% change 08-14	0.97	20.29	16.81	30.37

Source: Statistics Canada, Table 002-0011

Canadian lamb consumption has experienced growth,
bucking the trend of red meats in general



Immigration from Top Lamb Consuming Countries



Ontario processes about 50% of lamb slaughtered and has the largest lamb consumption

Source: Statistics Canada and George Morris Center





Industry Statistics Review

- 2010-2015 has seen stability in the national flock size, with growth primarily in Ontario and Alberta
- Canada is 62th in the world in sheep meat production
- Average flock sizes and sheep farm numbers are increasing in Ontario and in Western Canada
- Wool prices vary significantly year to year; the Canadian sheep industry is primarily meat
- Spring lamb prices are the market high point; summer is low point
- Meat imports to Canada have been increasing, primarily from Australia
- Most lamb slaughter occurs in Ontario under a provincial inspection system
- Lamb and mutton consumption is steady in Canada



Section 2 – Productivity Benchmarks

- This section describes sheep production systems and target production benchmarks
- Includes requirements of the most common production systems and have a reference of most common production benchmarks



Production Systems for Sheep

- This section outlines common production systems and provides average values for each system
- Producers match their lambing (production) system to their available resources and markets

Common production systems:

1. **Winter Lambing (December to March)**
2. **Spring/Grass Lambing(April/May/June)**
3. **Accelerated (3 lambings in 2 years or 5 lambings in 3 years)**
4. **Lamb Feedlot**



Production Systems for Sheep

Winter Lambing (most popular)

- Lambing Time → December to March
- Selling Time and Price → Spring market, **highest of year**
- Labour → High but available
- Housing → Important for lambing
- Feed Req't → High, good forage for lactating ewes
- Lamb Creep Feed → Moderate, weight important for spring sale
- Pasture Need → Ewes only, more ewes carried
- Health Issues → Higher disease incidence due to confinement and weather



Production Systems for Sheep

Spring/Grass Lambing – April/May/June (gaining in popularity)

- Lambing Time → April, May & June
- Labour → Lower req't, condensed lambing period, stock and pasture skill important
- Selling Time and Price → Late summer/early fall, fair prices, generates cash flow for accelerated
- Housing → Reduced req't
- Feed Req't → Low for winter, coincides with spring pasture growth
- Lamb Creep Feed → none required, high quality grass used
- Pasture Need → high, lambs and ewes at pasture
- Health Issues → higher predation & worm loads; less weather-related issues





Production Systems for Sheep

Accelerated lambing – 3 lambings in 2 years or 5 lambing in 3 years

Lambing Time	→	Variable throughout year
Selling Time and Price	→	More consistent cash flow & less price risk
Labour	→	Very high, intensive management req'd
Housing	→	High req't, lambing and breeding indoors under controlled conditions
Feed Req't	→	High, nutrition vital to success of accelerated lambing program
Lamb Creep Feed	→	High, lambs in confinement fed creep
Pasture Need	→	Low, some systems occur with 0 grazing
Health Issues	→	Closely monitored, reproductive management (e.g. light control, drugs, etc)



Production Systems for Sheep

Lamb Feedlot – Wean to Finish

Labour	—————→	High, lambs fed in confinement or on pasture
Selling Time and Price	—————→	As lambs reach target weights, usually 100-120lbs liveweight
Housing	—————→	High, lambs fed in feedlot barns/yards
Feed Req't	—————→	High, lambs fed to gain 0.5-1.0 lbs/day
Lamb Creep Feed	—————→	N/A, unless creep fed at pasture
Pasture Need	—————→	Critical if feeding on pasture, N/A if confinement feeding
Health Issues	—————→	Closely monitored



General Production Benchmarks

It is necessary to understand basic production targets to better understand assumptions used in financial projections

Management	Target	Observed Range
Age at Breeding	7 months	5-12
Gestation Length	147 days	138-159
Rams:Ewes	1:40	1:20-1:60
Ave Ewe Wt	150lbs	120-200
Ave Fleece Wt	5lbs	3-10
Ave Lamb Finish Wt	110lbs	90-125
Ave Lamb Weaning Wt	50lbs	30-80
Lamb Mortality (pre weaning)	10%	8-18



General Production Benchmarks

Management	Target	Observed Range
Live Lambing % Born/Ewe*	180	120-300
% Lambs Finished/Ewe	150	100-180
Ave Birth Wt	7lbs	5-10**
% Annual Ewe Replacement Rate	15	10-25
Ave Ewe Productive Life	7 years	5-9
Ave Ram Productive Life	4 years	3-6
Ave Days at Pasture	160	140-220
Feeder Lamb Mortality (post weaning)	4%	2-6
Lamb Average Daily Gain on feed	.7 lbs/day	.5-1.0

*System dependent, accelerated systems have higher lambing %

** Birth Wt correlated to birth singles (higher) or multiples (lower)



Section 3 – Definitions

This section contains:

- Common sheep terms
- Cattle – Sheep Comparisons
- Includes sheep terms and know how to equate beef and sheep output values



Common Sheep Terms

Term	Definition
Maternal Breeds	Sheep breeds used for mothering, milk and/or reproductive capacity
Terminal Breeds	Sheep breeds used for their ability to produce high meat yielding offspring with rapid gain
Hair Sheep	Tropical (or temperate derived) sheep breeds with hair rather than wool
Cull Ewe	A ewe at the end of its reproductive life
Ewe	A female sheep that has lambed at least once
Ram	A male breeding sheep
Lamb	A sheep that is normally < 1 year of age
Ewe lamb	A female lamb retained for breeding and has not lambed
Ram Lamb	A male lamb retained for breeding
Feeder Lamb	A lamb that requires more growth and finish before it is a suitable size and weight for a particular slaughter market
Market Lamb	A lamb that is ready for slaughter
Wether	A castrated male sheep



Common Sheep Terms (con't)

Flushing	Increasing the ovulation rate of a ewe through nutrition
Gestation	Length of time from conception to lambing
Dressing %	% of carcass from live weight (carcass wt/live weight)
Prolificacy	# of lambs born/ewe/lambing
Tup / Buck	A ram in the U.K / U.S.
Hogget	A yearling ewe
Feed Conversion	Amount of feed dry matter to allow 1 lb or kg of gain
Average Daily Gain (ADG)	The gain in one day of the animal in lbs or kgs



Cattle and Sheep Benchmark Comparison

Production	Sheep	Cattle
Age at Slaughter	6-8 months	14-18 months
Slaughter Weight	110 lbs	1400 lbs
Feed Conversion	4:1 - 6:1	5:1 - 9:1
ADG (lbs)	0.5 - 0.8	2.5 - 4.5
DDMI (daily dry matter intake) (lbs)	4.0	25.0
Breeding Mature Weight (lbs)	150-180 lbs	1200 – 1700 lbs
Ave Productive Life (years)	7	9
Ave Weaning %	150	90

Sheep are more efficient converters of forage and grain to meat than cattle, and are reproductively more efficient



Cattle and Sheep Benchmark Comparison

Comparing annual feed dry matter input, it would take approximately **6.0 ewes to equate to 1.0 beef cow**

Do not use body weight basis (150lbs vs 1400lbs) or 9:1 as feed intake of forage is the true measure of conversion

How does this equate to income?





Cattle and Sheep Benchmark Comparison

Output ratio is somewhat dependent upon price by region (example calculated using 5-year rolling averages) and is highly dependent on individual farm financial management

Annual Output example (snapshot in time)

1 lamb x 110lbs x \$1.60 x 1.4 lambs/ ewe = \$246.40

Multiplied by 6.0 = **\$1478**

1 steer x 1400lbs x \$1.18 x 0.9 (weaning rate) / 1.25 (14 months/12 months) = \$1486.80 X 1 = **\$1487**

Example Economic ratio is 1478/1487 or 1:1



Section 4 – Processing and Food Safety

This section contains:

- Slaughter statistics and carcass evaluation
- Sheep food safety program and the Canadian Sheep Identification Program (CSIP)
- Includes information on sheep management software



Canada Lamb and Sheep Slaughter Federal and Provincial 2012-2014

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Source: AAFC, Red Meat Section

- Lamb slaughtered in a federally inspected plant can be sold across Canada; provincially inspected lamb can only sold within that province
- Where lambs are slaughtered impacts where lamb can be marketed



Lamb and Sheep Carcass Weights

Canadian Warm Carcass Weights – Sheep and Lambs, Federal Plants Only (lbs)

	Canada	U.S.
2014	50.2	69
2013	51.2	69
2012	51.2	74
2011	51.1	71
2010	50.8	69
5 Year Average*	50.9	70.4

Canadian slaughter weights are lower than the U.S. based on market preferences

* Simple average

Source: Red Meat Section and Livestock Slaughter, NASS, USDA

Sheep and Lamb Grade Standards in Canada

Quality Grade	Maturity	Fat/ Muscling	Yield Grade
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
C1	·same as Canada AAA	·GR (4 mm ·individual muscle score \geq 1.0 and average muscle score (2.6	·none
C2	·same as Canada AAA	·yellow fat ·dark red meat	·none
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
D4	·same as Canada D1	·GR \geq 13 mm	·none



Sheep and Lamb Grade Standards - Canada

Grade standards for both U.S and Canada are based on carcass yield – how much meat is available after the animal is processed

Yield is influenced negatively by weight and exterior fat cover

Processors are moving towards rewarding producers for premium products driven by consumer preferences





Maintaining Public Trust



- On Farm Food Safety (OFFS) Food Safe Farm Practices Program
 - Production systems that have been implemented at the producer and processor level to ensure due diligence on food safety issues – they are based on HACCP principles.
 - In Canada, the sheep industry uses a voluntary program known as the “Food Safe Farm Practices Program” to minimise risk of on-farm food safety hazards.
- Canadian Sheep Identification Program (CSIP)
 - The mandatory identification program for the sheep industry became law in the country on January 1st, 2004.
 - The CSIP requires that all producers apply approved tags to all sheep of any age that leave the flock of origin.





Software Tools Being Used to Drive Profitability

- Management Software
 - Used by producers to track production and enable clear, objective management decisions
 - Producers take advantage of software programs that allow them to easily track production and financial data (for example, FlockFiler Pro, EweByte and FarmWorks)
- National Genetic Evaluation Program (GenOvis)
 - Used by sheep producers to track within flock genetically superior individuals – largely replace the old federal “ROP” program



Section 5 - Breeds

Contents of Section:

- Breed attributes based on breeding emphasis
- Canadian breed registrations based on popularity



Breeds

Producers choose breeds for their ability to provide genetic attributes that will target specific markets.

Example:

- Wool
- Terminal or Paternal (carcass and meat quality)
- Maternal (milk and reproduction)

Most sheep flocks in Canada are a combination of these traits. Producers use hybrid vigour (crossbreeding) to increase productivity. There are over 300 sheep breeds worldwide, with about 10 major breeds that adapted to Canadian markets & climate



Examples of Wool Breeds

Breed	Ewe Size (kg)	Lambing %	Fleece Type	Fleece Weight (kg)	Staple Length (cm)
Columbia	70-100	150	Medium, heavy	2.2-4.5	8-15
Romney	60-80	175	Coarse, lustrous, white	4-5	15-20
Rambouillet	70-90	175	Fine, even	4.5-7.0	6-10

Other wool breeds: Columbia, Lincoln, Perendale, Coopworth





Examples of Common Paternal Breeds

Breed	Ewe Size (kg)	Lambing %	Dressing %	Loin Size (sq inches)	Strength
Suffolk	100-115	180	51.4	2.78	Gain, heavy lamb market
Hampshire	80-115	160	N/A	N/A	High yielding, light and heavy carcasses
Texel	75-90	150	51.6	2.82	Muscling, high carcass yield

Source: Canadian Sheep Breeders Association and USDA MARC data

Other meat breeds: Charollais, Dorper, Canadian Arcott & Ile de France



Examples of Common Maternal Breeds

Breed	Ewe Size (kg)	Lambing %	Breeding season	Milking Ability
Rideau Arcott	75-95	250	Long	High
Dorset	70-100	175	Long	High
Romanov	50-70	270	Long	High

Source: Sask Ag, Canadian Sheep Breeders' Association

Breeds with extended breeding season can be used in accelerated lambing programs

Other maternal breeds: North Country Cheviot, Border Leicester & Polypay




Breed Popularity By Registrations (2012-2014)

Breed	2012	2013	2014
Suffolk	2,243	2,073	1,942
Dorset	2,143	1,612	1,415
Rideau Arcott	1,901	1,862	1,239
Romanov	1,610	1,204	925
Dorper	767	872	700
Hampshire	448	427	435
N.C. Cheviot	564	582	434
Katahdin	873	579	424
Polypay	442	951	400
Canadian Arcott	418	470	298

Source: CLRC



Section 6 – Marketing of Canadian Lamb

This section includes:

- Market potential for Canadian lamb
- Marketing systems
- Marketing to consumers
- Market information sources
- Marketing effort
- Wool Marketing



Market Opportunity

- 35.5 million Canadians eat 1 kg of lamb/sheep meat per year = 35.5 million kg (35.5 MT) of consumption
- We import approximately 18.1 MT of lamb/sheep meat per year or **50%** of our consumption
- Consumers prefer Canadian lamb. There is an opportunity to replace imported lamb with Canadian lamb
- Unlike other animal protein sectors in Canada, lamb is not dependent on export markets

Lamb is one of the few commercial animal protein in Canada with such significant market potential



Traditional Markets

Seasonal supply and demand impacts price. While market specifications vary by region, there are two general categories of lambs sold:

Feeder Lambs (requires more growth and finish to be ready for slaughter)

- Sold as 50-80lbs lambs at roughly 10-25weeks of age
- Most are sold direct to feedlots or through public auctions
- Priced based on weight and condition

Market Lambs (ready for slaughter)

- Sold as 90-125lbs at roughly 15-35 weeks of age
- Most are sold direct to packers on a live weight or rail grade (dressed) basis or through public auction markets
- Priced based on weight, muscling, and fat

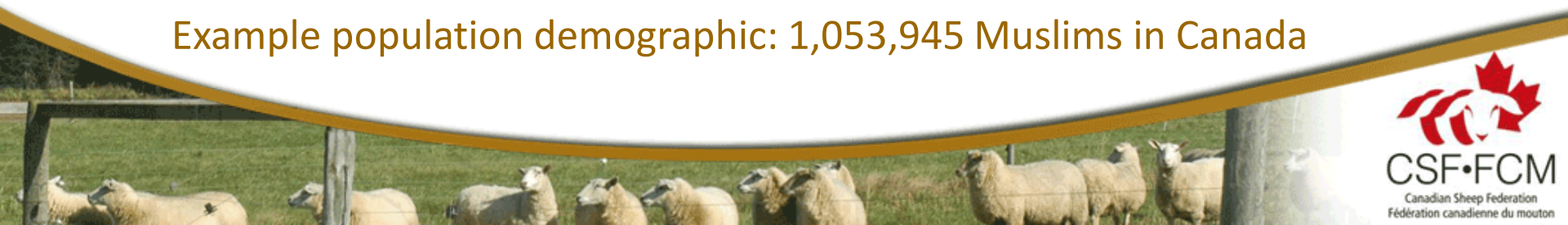


Ethnic Markets

Ethnic Group	Holiday	Approx Time 2015	Type of Lamb
Christian	Easter	April	30-45lbs milk fed and fat
Greek	Easter	April	As above
Jewish	Passover	April	30-55lbs milk fed and fat
Jewish	Rosh Hashanah	September	Forequarters from weaned lambs, 60-110lbs
Muslim	Ramadan	July	60-80lbs
Muslim	Aïd al Adha (Festival of Sacrifice)	September	60-80lbs

Source: Statistics Canada Census and Sheep and Goat Marketing Info

Example population demographic: 1,053,945 Muslims in Canada





Farm Direct Marketing

Direct marketing occurs when producers market lamb direct to various consumers. They do this primarily to:

1. Control and maximize the financial return of the product
2. Remove price fluctuations of the commodity market
3. Leverage unique farm location, breed, or farm practices

Pros

Direct contact with consumers
Greater price control
Ultimate responsibility for quality
Increased awareness of system costs

Cons

Large time commitment
Regulatory responsibility
Increased facility requirements
Increased marketing costs

Source: Direct Selling Meats, Marketing Freezer Lamb, Alberta Ag



Market Information Sources

Canada

- <http://www.ontariosheep.org/> - click on markets and follow links
- <http://www.gov.mb.ca/agriculture/market-prices-and-statistics/livestock-statistics/index.html>
- <http://www.agric.gov.ab.ca/economic/stats/wklvstck.html>
- <http://www.atlanticstockyards.com/marketreports.html>
- <http://www.ablamb.ca/links/lamb-market-reports.html>
- <http://www.reseauencansquebec.com/index.php?id=40>
- <http://www.agr.gc.ca/redmeat-vianderouge/>

International

- <http://www.lmic.info/spreadsheet/prices-and-production>
- <http://www.farm.net.nz/index.cfm> - general site for livestock prices by region and type
- <http://beefandlamb.ahdb.org.uk/markets/>
- <http://www.mla.com.au/Prices-markets>
- <http://www.beeflambnz.com/information/on-farm-data-and-industry-production/price-trend-graphs/>
- http://www.stats.govt.nz/browse_for_stats/industry_sectors/agriculture-horticulture-forestry.aspx





Canadian Marketing Effort

An effort by the Canadian Sheep Federation to provide producers, processors and retailers with resources to effectively market Canadian lamb products.

Information is available in the following areas:

- Preparing Canadian lamb products
- Merchandizing Canadian lamb in the retail and food service sectors
- Canadian lamb industry information and resources

www.freshcanadianlamb.ca

Source: CSF (www.cansheep.ca)



Marketing – Wool

Producers in Canada have three primary markets for their wool: Commercial wool buyers; local wool handcrafters; and selling partially processed wool.

Buyers prefer clean, uncontaminated wool. Fine, white wools commanding a price premium. There is also a market for naturally coloured wool.

The Canadian sheep industry is primarily meat focused. Specialty wool production is a niche market.



Section 7 – Cost of Production (COP) Information

This section includes:

- Balance sheet, input price and income data
- COP example and sample COP programs
- Financial planning program assistance for sheep producers



Sheep/Goat Farm Balance Sheet Data 2013

	Western	Eastern	Canada
# of Farms (survey)	292	848	1139
Total Current Assets	58,101,318	45,150,360	103,251,678
Total Long Term (LT) Assets	545,907,121	791,200,926	1,337,108,047
Total Farm Assets	604,008,439	836,351,286	1,440,359,725
Total Current Debt	3,688,823	24,549,753	28,238,576
Total LT Debt	20,373,229	201,281,361	221,654,590
Total Net Worth	579,946,387	610,520,172	1,190,466,559

Source: Statistics Canada, Farm Financial Survey



All Farm Input Price Index 2005-2014

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Farm inputs, total	108.4	110.5	118.3	134.2	127.9	124.9	136.8	144.8	147.2	156.0
Machinery										
Fuel	164.2	177.6	189.2	241.8	164.0	184.1	236.3	241.3	250.5	256.6
Fertilizer	122.7	115.2	149.5	250.9	209.3	160.1	200.9	218.4	196.7	196.0
Animal production	91.8	92.2	99.6	109.6	108.6	107.2	121.7	131.9	133.2	150.0
Buildings	118.3	123.3	127.8	137.8	127.1	126.2	132.7	135.8	139.6	143.5
General Business Costs	106.7	115.1	126.3	134.4	127.4	127.6	135.8	142.3	154.1	158.3

Source: Statistics Canada, Table 328-0015

Overall, all farm input costs have increased steadily since 2010



Sheep COP Calculations - Example

How is lamb priced?

Margin calculation

- buy 50lb feeder lamb at $\$2.19/\text{lb} = \109.50
- sell 105lb market lamb at $\$1.97/\text{lb} = \206.85

- margin = $\$97.35$ on 55 lbs
or $\$1.77/\text{lb}$

This must cover all expenses and profit

July 2015



Sheep COP Calculations Example

How is lamb priced???

Sample feed cost calculation:

55lbs gain at 5:1 feed conversion

= 275 lbs of DM (dry matter) required to feed lamb to finish

- Diet is 60:40 grain: forage
275lbs x 60% = 165lbs grain DM or 183 lbs as fed
275lbs x 40% = 110lbs forage DM or 122lbs as fed
- Grain at \$180/T = 8.18 cents/lb x 183lbs = \$15
- Forage at \$100/T = 4.5 cents/lb x 12lbs = \$5.50

Total Feed = \$20.50

feed represents approx. 50% of total costs (\$41)

Net Return: \$97.35 - \$41 = \$56.35/lamb



Sample Farm COP Input Calculators

FeedlotPLAN – Sask Ag program for projecting costs, cash flow and balance sheet for lamb feedlots (Excel based)


Ewe Planner – Saskatchewan Sheep development Board 5 year ewe flock financial planning tool (Excel based)

Ewe Flock Cost of Production Calculator – Ontario COP Calculator (Excel based)

Feeder Sheep Production Costs – Manitoba Ag ewe flock COP calculator (Excel based)

Flock Snapshot – Alberta COP Calculator (Excel based) that pulls together financial and production data to provide a “snapshot in time” of flock performance

ASE (only in French) – Quebec COP calculator (Web based) that compares the producer average and top group for all variables and identifies where action is needed (work effectiveness, herd productivity, herd management, effectiveness vis-à-vis fields and forage quality, equipment/barn effectiveness).



Section 8 – Grazing

This section contains:

- Grazing concepts and cost comparison
- Management issues
 - Forage management
 - Predation



Grazing Concepts

- Pasture grazing can be the most effective means of converting forages to high quality meat, milk and wool
- Grazing management strives to extend grazing for as long as possible in a sustainable manner
- Grazing management can provide a competitive advantage for some regions and producers
- Grazing sheep are part of a sustainable nutrient cycle that stimulates soil fertility, forage growth and carbon sequestration



Graze Longer - Cost Benefit

By comparing Dry Matter (DM), we can compare harvested feeds to pasture grazing

	Cow/Calf (0.9) ¹	Ewe/Lamb (1.3) ²
DM req't/day	31.5	4.7
Stored DM cost (c/lb)	4.55	4.55
Stored DM cost (c/day)	143.0	21.4
Pasture DM cost (c/lb)	1.5	1.5
Pasture DM cost (c/day)	47.25	7.05
Savings in cost c/day	95.75	14.35

Extending the grazing season has potential savings in feeding costs.





Predators and Sheep

- Sheep predation in Canada has hindered industry growth
- Producers have achieved excellent control through using a combination of control techniques
- Primary predators include coyotes and dogs but can also include bears, bobcat, lynx and eagles
- Some provinces have predation control programs – compensation and predator bounties
- Predator management occurs mainly through the following:
 - Fencing
 - Guardian Animals
 - Flock Management



Section 9 - Sheep Information Sources

This section contains:

- Organisation and provincial extension contacts
- How to keep current - industry news and reading



Sheep Information Sources

National Organisation Resources

Organization Contacts

Canadian Sheep Federation

- Executive Director: Corlena Patterson
Address: PO Box 10 Williamsburg, ON K0C 2H0
Phone: 613-652-1824 or 1-888-684-7739
Fax: 613-652-1599
Email: info@cansheep.ca

Canadian Sheep Breeders' Association

- General Manager: Stacey White
Address: RR # 2, Site 7, Box 46 Bluffton, AB T0C 0M0
Phone: 1-866-956-1116
Fax: 506-328-8165
Email: office@sheepbreeders.ca

National Government Contact

Agriculture and Agri-Food Canada

- Sector Specialist: Virginie Rochet
Phone: 418-648-3741
Email: virginie.rochet@agr.gc.ca



Sheep Information Sources

Provincial Government Resources

- **Newfoundland** Forestry and Agrifoods Agency, Phone: (709) 729-0651
- **Nova Scotia** Jonathon Wort, Phone: (902) 896-0277 EXT 232
- **Prince Edward Island** Dr. Les Halliday, Phone: (902) 314-0827
- **New Brunswick** Guy LeBlanc, Phone: (506) 453-5466
- **Quebec** Renée Lalancette, Phone: (418) 380-2110 EXT 3254
- **Ontario** Jillian Craig, Phone: (705) 324-5856
- **Manitoba** Mamoon Rashid, Phone: (204) 945-7557
- **Saskatchewan** Sherri Dobbs, Phone: (306) 787-4657
- **Alberta** Susan Hosford, Phone: (780) 679-1305
- **British Columbia** Lori Vickers, Phone: (250) 784-2559



CSF Industry News

“From the Flock”

The CSF newsletter for Canadian and International news.

Contact and subscribe website
www.cansheep.ca





Further Reading

- **Red Meat Market Information**
(<http://www.agr.gc.ca/redmeat-vianderouge/>)
- **Maryland Small Ruminant Page** (<http://www.sheepandgoat.com/>)
- **Canadian Co-Operative Wool Growers**
(www.wool.ca)
- **Canadian Sheep Breeders Association** (<http://www.sheepbreeders.ca/>)
- **Société des éleveurs de moutons de race pure du Québec (SEMRPQ)**
(<http://semrpq.net/>)
- **Canadian Sheep Federation** (<http://www.cansheep.ca/>)
- **Alberta Lamb Producers** (<http://www.ablamb.ca/>)
- **Saskatchewan Sheep Development Board** (www.sksheep.com)
- **Ontario Sheep Marketing Agency** (www.ontariosheep.org)