



Marketing and Economics

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Marketing Lamb in Ontario

Marketing decisions can dramatically affect the profitability of your operation. Your marketing strategy will influence important management practices, including the timing of breeding and lambing seasons, amount of feed required for raising lambs (pasture and/or confinement feeding), and lamb weight at marketing. Your marketing plan should determine your management system, rather than management dictating your marketing decisions. Learning about your options regarding where and when to market your lambs will help you make informed decisions regarding this important aspect of your operation. The information in this chapter is intended to give a basic overview of lamb marketing in Ontario. The consumer base and therefore type of lamb in demand varies from area to area across Ontario. It is advisable to talk to other sheep producers and/or the OMSA director in your area to gain a full appreciation of marketing options in your district.

Where Should I Market My Lambs?

There are three basic approaches for marketing lamb in Ontario: through auctions, direct to buyers and/or packing plants, or directly to consumers. Each of these marketing strategies has advantages and disadvantages. A diverse marketing strategy using more than one of these approaches may help decrease the risk of having 'all of your lambs in one basket', if the price in one market falls.

Marketing Who's Who:

- **Packers** own processing plants and buy animals for butchering and sell meat products to wholesalers and retailers.
- **Livestock dealers** buy from producers, auctions etc. and resell live animals.
- **Livestock brokers** are similar to dealers, however, do not actually own or take possession of the animals. They charge a commission fee for arranging the sale of your animals (e.g auctions).
- **Wholesalers** buy animals or meat products from any of the above groups to supply retailers.
- **Retailers** sell directly to the consumer through shops, restaurants etc. Some retailers may only be interested in buying specific cuts of lamb and will generally go through a wholesaler. Others may wish to deal directly with producers, and have a slaughter facility that they deal with regularly.
- **Ontario Sheep Marketing Agency:** Except to act as a broker for the forward contract program, OSMA does not have direct involvement in the sale of sheep and lambs in Ontario. OSMA is enabled by the Products Marketing Act to claim a per head check-off fee for the sale of sheep and lambs. The check-off is used to benefit the industry as a whole through product promotion and producer advocacy.

Sales Barns

In Ontario, most producers sell their animals through public auctions. This is a free market system, where prices can vary daily and seasonally depending on supply and demand. Buyers for packing plants and abattoirs will buy live animals at auctions (sales barns). An advantage of selling through sales barns is that the producer doesn't have to expend effort in finding a buyer. Auction marts are generally bonded, which guarantees that the producer will be paid in a timely fashion. Sales can be risky, however, as the price you receive will be largely based on the amount of competition among buyers on a given day. Although there are ~130 packing plants/abattoirs that deal with sheep in Ontario, only five handle the majority of the sheep and lambs. Factors that are generally out of your control, such as whether your lambs go through at the beginning of the sale or at the end, can also influence the price regardless of the quality of the lambs. Once the sale has started the producer has little control over the price he/she receives. Some auctions will allow the producer to set a minimum (floor) bid before the auction as a condition of sale. Auctions are not required to provide this service, however, and your animals may go for much less than anticipated. Sales barns charge a per head fee for selling animals, which goes towards facility maintenance, auctioneer, and staff salary. If there are a number of sales barns in your area you may wish to contact each one to compare their fee rates.

There are many sales barns throughout Ontario (see page 35 for a listing). Fourteen of these markets provide weekly sales information to the OSMA office. Of these 14, four sales handle a large majority of the sheep and lambs. For the years 1999 to 2001, Ontario Stockyards Inc.(OSI), Ontario Livestock Exchange Inc.(OLEX), Brussels Livestock, Embrun Livestock Exchange handled a total of 94% of the total sheep and lamb sales (OSI=57%; OLEX=15%; Brussels=12%; Embrun=10%). Although the largest sale (OSI) tends to set the price trends, there can be a wide variation in price across the province.

Weight Categories:

At auctions, animals are sold based on their live weight. The weight categories for Ontario sales are as follows:

Lambs

- Under 50lb*
- 50-64 lb*
- 65-79lb
- 80-94 lb
- 95-109 lb
- Over 110 lb

Sheep (adult animals of any weight)

* Lambs under 65 lbs may also be referred to as 'new crop', 'milk lambs', or (in the US) 'hot house lambs'. They are generally freshly weaned at the time of sale.

Breeding Stock

With the mix of animals that come together at sales barns, buying breeding stock at auctions increases the risk of bringing an unwanted disease home with your new animals. Many of the adult animals that are sold at auction are there as culls. By purchasing breeding stock from these sources, you may be buying another producer's problems. It is far better to go through a reputable breeder and buy animals with a known health status. Producers who buy or sell breeding stock may wish to advertise in recognized agricultural newspapers such as the Ontario Farmer or in publications such as in the Breeder's Directory of the Ontario Sheep News. See Chapter 5 for more information concerning purchasing breeding stock.

Price Reporting:

Prices from these sales are reported as *price per hundred weight* (\$/cwt) for live animals. Dividing this number by 100 will give you the *price per pound*. The low-high range, average price, and top price for individual weight groups are reported from each sale. To account for abnormally high and/or low prices, the range includes 80% of the animals marketed for that day. Data is presented by OSMA from each of the four largest sales (OSI, OLEX, Brussels, and Embrun), and as a summary of 14 markets. Summarized prices are reported as *weighted averages* to account for the number of animals sold for specific price. For example, more emphasis is placed on the price of 100 animals from market A, compared to the price of 10 animals from market B. A non-weighted average places equal emphasis on both prices.

Sources of Ontario Sale Barn Data

Weekly Ontario market information can be accessed via the OSMA market line (519-836-0043 select market data option from menu), website (www.ontariosheep.org/MARKET.html), or the Ontario Sheep News. As well, The Ontario Farmer, the Lanark Era, Better Farming and The London Free Press post market data provided from OSMA on a weekly basis.

Producer to Dealers, Packers, and Retailers

An estimated 10-15% of the market in Ontario involves direct sales from producers to dealers, packers, retailers etc, without using the services of an auction mart. Direct marketing provides the producer with the option of negotiating with the buyer and not selling the animals if a price is not adequate. Developing a long-term relationship with a reliable buyer is ideal for both parties. Over time the producer is able to adjust

his/her management to consistently produce the type of lamb the buyer requires. The producer receives a relatively predictable price and may be able to negotiate a premium for providing the buyer with animals of a known quality. However, succeeding with this marketing option may require a great deal of time, effort, and market knowledge on the part of the producer. Keeping an eye on sales barn prices during the time of the year you are selling will help ensure you are receiving a fair price for your animals. Finding out as much as you can about the buyer, including asking for a credit check, may prevent problems with future payment.

Know what your rights are with regard to the timing of payment and when it is appropriate to file a complaint. A lone producer contributing a small percentage of the total business for a buyer may not be a priority for speedy payment and there have been cases in Ontario of such problems in the past. When selling directly to buyers it is important to maintain a paper trail of all transactions. Controversies, such as the agreed upon price, the number of animals received or length of time between delivery and slaughter, are more likely to be resolved in your favour if you have documentation. This should include a proper invoice, including the buyer and seller name, sale date, number of animals, and the buyer/transporter signature.

OSMA's forward contract program involves direct marketing from producers to packing plants (see page 36). The lamb numbers and producer payment are brokered through OSMA, which helps ensure producers are paid in a timely manner.

Feedlots

In Ontario, the majority of sheep operations keep their lambs from birth until they are sold for slaughter. In Western Canada the practice of feedlotting lambs is relatively common. This involves gathering young stock (feeders) from various sources for finishing. To date, feedlots haven't been commonplace in Ontario, but there are some indications that they may become more popular in the future. If this occurs there may be new opportunities for sheep producers to supply lambs directly to these operations.

Live weight vs dressed weight

When selling lambs directly to a buyer, you may have the option of being paid either on a live animal or dressed carcass basis. With the auction system, you will always be paid based on live weight on the day of the sale and paid accordingly. Live weight when selling to a buyer, is generally based on the weight of the animal as it crosses the scale at the abattoir or processing plant. Once the animals have left your possession (i.e. they are picked up from your farm or you deliver them to the plant) you have no control over how they are handled before slaughter. Animals may be held for a day or more before being killed, which may lead to significant 'shrink'. Shrink is the change in live weight that occurs during transport and holding before slaughter, if animals are not given full access to feed and/or water. This change includes the loss of gut fill and (generally after 24hrs) moisture and nutrients from carcass tissue. This change can be 3-5% of the total carcass weight or higher in some cases. You may wish to discuss applying a shrink calculation to the sale price to compensate for this loss. Although they may not be accepted as the 'official' sale weight, it is also a good idea to weigh animals on your farm before shipping, to cross-reference with the weights at slaughter.

When lambs are sold on a live weight basis, the buyer estimates what the yield and quality of the carcass will be and accepts the risk of being wrong. Alternatively, dressed weight (or rail grade) price is based on the actual carcass weight and grade. Complexity of the grading system may vary considerably depending on the buyer, from measurements for fat depth and muscling, to a visual assessment, to not being performed at all. Carcass weight generally ranges between 48 and 54% of the live weight, depending on animal age, finish (fat cover), and how the carcass was dressed (i.e head on/off, organs in or out). Carcass dressing methods vary depending on the market requirements (e.g. some retailers may require that the head is left on and organs included etc.). Be sure to ask about the details of how the carcass will be graded and dressed before agreeing to a price. As only the carcass, not including the digestive system, is weighed no shrink calculation enters into rail grade pricing. If the animals are left without feed and water to the point that the body is absorbing moisture from the carcass (causing tissue shrink), the producer is not compensated for this loss.

Producer to Consumers

Producers may sell a portion or their entire lamb crop directly off-farm one animal at a time as 'freezer lamb'. This involves developing your own client base and can be a good way to diversify your market. It eliminates the cost of the 'middle-man' and may allow you to realize more return on your product. Since

you negotiate the price, you should be able to avoid the price fluctuations of the open market. Provided you've done a good job of establishing a solid client base, you will have a steady market for at least some of your lambs if auction prices fall. However, this method can be time consuming, as you may need to deal with many individual clients interested in buying only a single animal. Individuals may have very different preferences, requiring the producer to have a wide variety of animals available. By law, lamb for off-farm sales must be slaughtered and butchered in a licensed abattoir or processing plant. In most cases producers incur the cost of slaughter and butchering. Producers may have to spend considerable amount of time promoting their product and developing their client base. As with selling to larger buyers, it is important to maintain a paper trail, including invoices, to prevent misunderstandings.

When Should I Market My Lambs?

As with all free market livestock commodities, lamb price fluctuates throughout the year and from year to year. Before you decide when to market your lambs it is important to learn as much as possible about typical price patterns and what to expect when marketing lambs of different weights. You may wish to market lambs at different stages to take advantage of various marketing opportunities, rather than relying on a single market for one weight range.

Market Cycles

Long-term Cycles

Long-term price cycles tend to last for several years and continue to repeat the same pattern over a long period. Changes in price trends (either up or down) are due to changes in product volume, feed availability and cost (partially dependent on weather), international and inter-provincial trade activities, and the overall state of the economy. The lamb market is based on free market trade and is not controlled by a marketing board or quota system. In this type of market, the number of producers often triggers the changes in the long-term cycle. If prices have been high for several years, the number of new producers entering the industry will increase. If demand remains the same eventually there will be an oversupply of the product. With more product on the market, the price falls and the cycle will repeat. Although the sheep industry does go through these cycles, it is estimated that only ~50% of the demand for lamb is provided domestically. There is ample room for the industry to grow if imported lamb is replaced with domestic product.

Seasonal Cycles

To a certain extent prices in all livestock markets tend to follow seasonal patterns and conform to the pattern every year. Seasonality in price occurs as a result of the interaction of consumer demand and the supply of the product. Fluctuations in consumer demand for lamb are largely based on cultural traditions, from centuries-old religious celebrations to more recent rituals, such as barbeque season. On a seasonal basis, changes in product supply are due to sheep biology and the prevalence of various management practices, such as out-of-season breeding. The influence of supply and demand lead to distinct seasonal price patterns in each of the lamb weight groups.

i. Market Data:

To gain a clearer picture of the changes that occur during the year, it is advantageous to look at market data from past years. The graphs on pages 30 to 34 are derived from weekly information provided to OSMA from 14 Ontario sales barns from 1999 to 2002. For these charts the two lightest weight groups have been combined into the under 65lb group, and the two heaviest groups are combined into the over 95lb group. Figures 1a-1e on pages 30 and 31 show weekly volumes and prices for the various weight groups. These charts demonstrate how gradually or quickly changes occur in each of the weight groups. For instance the total yearly volume of lambs in the under 65lb group and in the 65-79lb group are similar. However, the seasonal dispersion of the two groups is very different. The supply of lambs under 65lbs increases dramatically at specific times during the year, whereas changes in the 65-79lb group are prolonged and

consistent. Generally speaking, prices in all groups are highest for the first few months of the year. They fall relatively quickly from ~mid-April until ~mid-June, at which time the decline levels off. The lowest prices of the year tend to occur in the late summer and early fall. Please note that the values plotted in the graphs represent only the volume and prices for the years 1999-2002. Although the seasonal trends represented by the graphs will likely be similar from year to year, the actual values plotted in these graphs may not be indicative of future values. For example, prices may be lower (as in 2002) or higher (as in 1996), than the values plotted

Figures 2a and 2b on page 32 show the changes that occur on a quarterly basis in price and volume within each weight group. These graphs demonstrate the level of fluctuation that occurs in volumes and prices within weight groups throughout the year. For instance, there is a large amount of fluctuation in the under 65lb group, whereas the mature animal category is relatively constant (close to zero) in supply and price through the year

The graphs also show the effect of the volume (supply) on price. For example, when the volume is above the average, price tends to be below average and when the volume is down, the price is up. There are some notable exceptions to this rule. For example, even though there are lower than average numbers of lambs under 65 lbs. during the third quarter (Jul-Sep), low demand at that time of year for light lambs is reflected by the below average price. Conversely during the first quarter for this same group the volume is above the year average. Generally the later part of the first quarter includes many of the weeks leading up to Easter, therefore, demand for these lambs is strong enough for the price to be above average.

While Figures 2a and 2b show what happens *within* different weight groups on a quarterly basis, Figures 3a-3c on page 33 compare volumes and prices *across* lamb weight groups. Figure 3a shows the percentage of the total number of lambs marketed falling in each weight range for each quarter. Figure 3b shows that relative to the price per pound averaged for all groups, the two lightest weight groups are always above average and the two heavy groups are below the average. Although price per pound is higher for the lighter lambs, Figure 3c shows that the price received per head is higher for lambs over 80lbs. The extra cost of feeding lambs to higher weights should be taken into account when considering marketing heavier lambs. The article stating on page 37 of this chapter provides more information regard these costs.

ii. Sheep Biology and the Markets:

Traditional fluctuations in the supply of lamb throughout the year are in part due to the seasonal nature of sheep reproduction. Left to their own inclinations, sheep will breed during the shortening day lengths of the fall and lamb in mid to late spring (see Chapter 6). Although more producers are going to year-round or out of season breeding systems, many producers have a single lambing season in the spring. The supply of lamb, therefore, tends to increase after mid-June and peaks in August and September. The price paid is influenced by the availability of the product, and the time of peak supply generally corresponds with the lowest prices. The graphs on pages 30 and 31 for lambs between 65 and 95lbs reflect the typical seasonal supply and price patterns as discussed above. More operations using year round productions systems would decrease the seasonal nature of the sheep industry. This type of operation is not for everyone, however, as there are often increased overhead and labour requirements. You must also choose a breed of sheep that is adapted to reproduce out of season and/or consider using methods of controlling the estrous cycle (see Chapter 6). A detailed study regarding the cost of production for different systems begins on page 37 of the current chapter.

ii. Holidays and Ethnic Markets:

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 Ontario's population increase since 1996 was 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 learning about the type of lambs preferred for these markets. In particular, the Islamic faith is estimated to be one of the fastest growing religions in Canada, increasing 129% between 1991 and 2001. Sixty-one percent of Canada's Muslim population resides in Ontario (see table on the following page).

Religious affiliation of the 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

Lamb is a traditional dish for many important events and celebrations. As well as the holidays listed below, demand for lamb may increase before the summer long weekends and prior to various other ethnic observances.

Western or Roman Easter: Easter lambs should be freshly weaned (milk fed) and not older than 3 months of age. Numbers of lambs under 65 lb begin to increase approximately three weeks before Easter, and peaks during the week before Easter. Numbers of 65-79lb lambs tends to increase during this time as well. Figures 4a and 4b on page 34 show the price and volume changes during the weeks leading up to Easter for the years 1999 to 2002. Although volume increases were fairly predictable from year to year, price patterns varied considerably during these years.

- April 20, 2003
- April 11, 2004
- March 27, 2005
- April 16, 2006
- April 6, 2007

Eastern or Greek Orthodox Easter: Generally speaking the same type of lamb preferred for Western Easter is preferred for Orthodox Easter. Orthodox Easter very often falls on the same day or within a week of Western Easter, making it difficult to determine demand and supply patterns from past data. In 2002, however, Orthodox Easter fell approximately a month after Western Easter. Volumes of lambs under 65lbs increased by ~800 head and \$0.14/lb the week before the holiday, relative to the average values for the three previous weeks.

- April 27, 2003
- April 11, 2004
- May 1, 2005
- April 23, 2006
- April 23, 2007

Passover: Passover is an eight-day Jewish observance, which generally falls in close proximity to Easter.

- April 17-24, 2003
- April 6-13, 2004
- April 24-May 1, 2005
- April 13-20, 2006
- March 16-April 2, 2007

Christmas: Lambs preferred for the Christmas market are similar to those preferred for Easter (ie. light weight and milk fed). The graphs on pages 30 and 31 (Figures 1a-1e) show the changes in volume and price leading up to Christmas, which falls within 'Week 51' on the charts. Out-of-season breeding is required to produce the favoured type of lamb for this market. Christmas will fall on December 25 for the foreseeable future.

Ramadan: Ramadan is the Islamic holy month. During the month Muslims fast during the daylight hours, but often prepare special foods for family and friends after the sun has set. Lambs can be either male (castrated or intact) or female and not older than a year of age. Preferred lambs are between 60-80lbs live weight and not overly fat. The first day of observance can vary slightly from the dates stated (see the Note on the Hijah or Islamic Calendar below).

- October 26, 2003
- October 15, 2004
- October 4, 2005
- September 24, 2006
- September 24, 2007

Id al Fitr: Id al Fitr is the Festival of breaking of the Ramadan fast, and occurs at the end of the month of Ramadan. Generally the same type of lamb is preferred as for Ramadan.

- November 25, 2003
- November 15, 2004
- November 3, 2005
- October 24, 2006
- October 24, 2007

Id al Adha: Id al Adha, the festival of sacrifice, is one of the most important observances in the Islamic faith. Lambs should be under a year of age and be unblemished. Blemishes may include open wounds, torn ears or other physical unsoundness. In some cases, wethers and lambs with docked tails may not be acceptable. This observance may also be referred to as Qurbani. Although this term more correctly refers to the actual act of slaughtering the animal. Volume and prices changes leading up Id al Adha in 2002 are shown in Figures 5a and 5b on page 34.

- February 12, 2003
- February 1, 2004

Note on the Hijah or Islamic Calendar:

One of the more confusing aspects of marketing lamb for Islamic holidays is that these events do not occur within specific seasons or on fixed dates of the Gregorian (Western) calendar. Since ~638 AD, the timing of these observances has been determined using the Islamic (Hijah) calendar. This calendar has twelve months with each new month beginning at sunset on the day the crescent moon appears. As the calendar is based on lunar activity, the 12-month rotation occurs in approximately 354 days. Therefore the months move backwards through the seasons and occur approximately 11 days earlier every year according to the Western calendar. The start of each month of the Hijah calendar is based on actual sightings of the moon and/or astronomical calculations. The importance of sightings versus calculations varies from place to place, with some relying heavily on physical sightings and others using only calculations. If sightings are required, the first day of the month may vary slightly from the predicted starting date depending on atmospheric conditions and other events affecting the sightings.

What Should Market Lambs Look Like?

Lamb weight	As discussed earlier different markets favour lambs of different weights. Generally speaking lambs in Ontario and Quebec are marketed at a lighter weight than in the West or in the US. Excepting various holiday peaks, the majority of lambs marketed in Ontario are between 65-79lbs. Buying a scale and monitoring lambs on-farm will help ensure your lambs are fitting into the desired category.
Degree of finish	The amount of finish (fatness) will depend to some extent on the age of the lambs. Generally speaking, market lambs should have a good fat cover, but not be overly fat (condition score of ~2.5). Condition scoring and modifying your feed schedule accordingly will help finish lambs properly (See Chapter 7 and the Code of Practice at the end of the binder for details on condition scoring). Be aware that some breeds will mature at different weights. If you wish to market heavy lambs, breeds with light adult weights may mature and be over-finished (too fat) before they reach the desired weight.
Healthy & Clean	Buyers will be much more likely to pay a good price for lambs that look healthy and clean. Some ethnic markets require ‘unblemished’ lambs, referring to the lack of marks, injuries, or other faults. Many buyers prefer shorn animals with docked tails. Shorn animals are easier for buyers to visually assess for quality (muscling, fat cover etc.). As well, shorn animals take up less room during transport. There is less chance of carcass contamination during slaughter by bacteria from soiled fleece if the animals have been shorn and the tails are docked.
Castration	Castration of ram lambs is preferred or of little importance in most cases. When marketing older lambs, castration may help decrease bruising from animals fighting. Generally, however, lambs will be marketed before they become sexually mature and some producers prefer to leave them intact. As well, certain ethnic markets favour ram lambs.
Uniform	If you are selling a number of animals, try to have the group as uniform as possible. Buyers are often looking for a specific type of animal. If your animals are similar in appearance, they may go for a better price than if the buyer has to pick and chose the preferred animals.
Food Safety	Maintain records regarding the use of medication and double check that animals being shipped to market have met the recommended withdrawal dates for all medications.

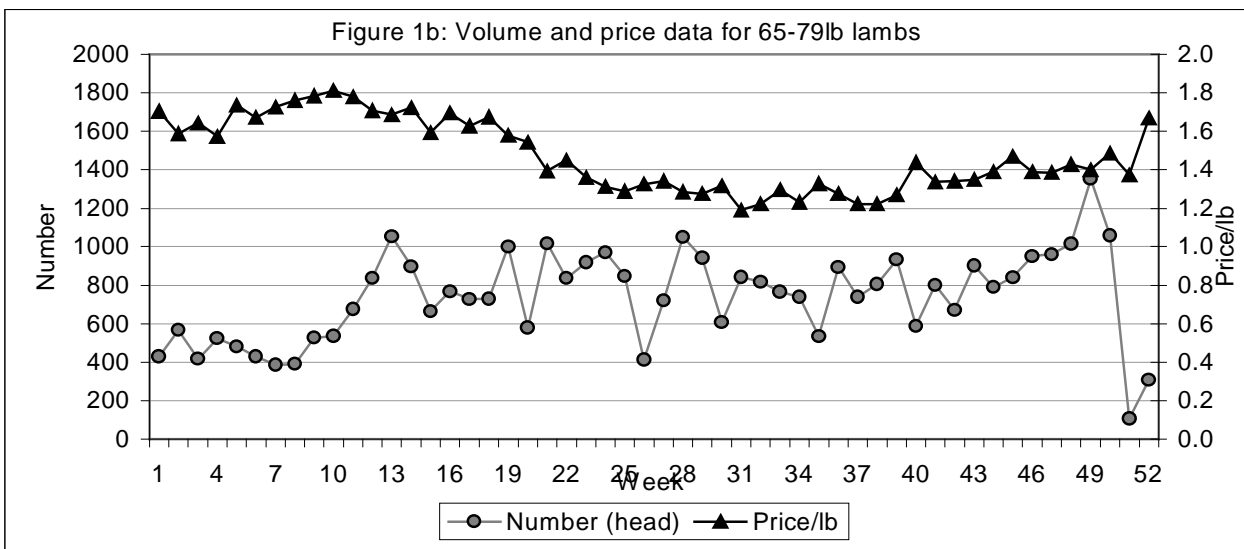
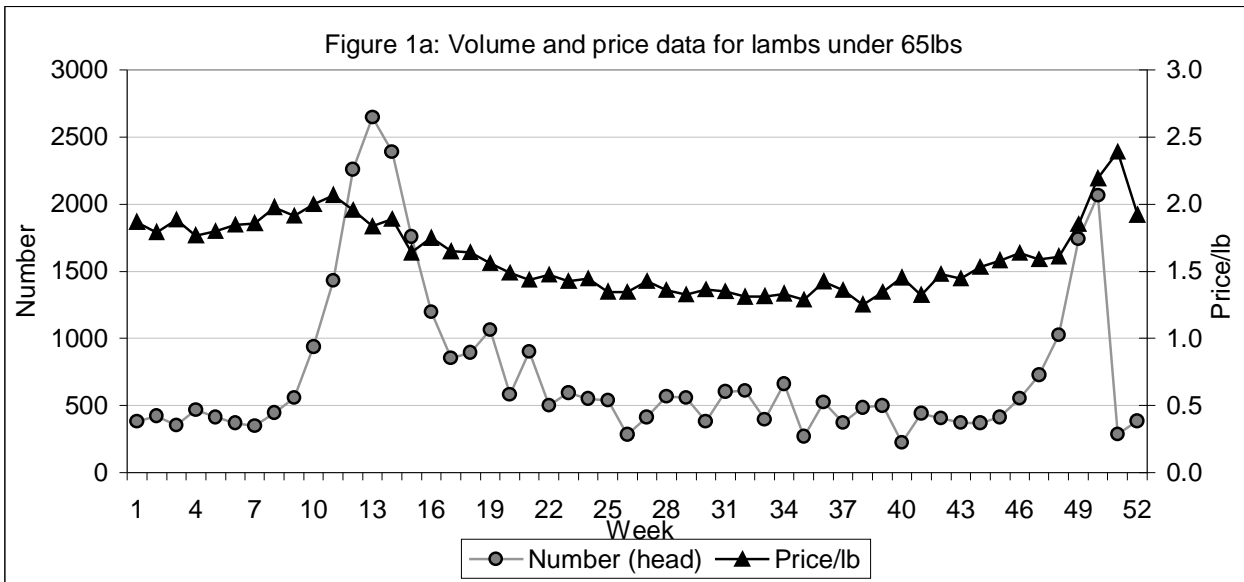
Market Graphs

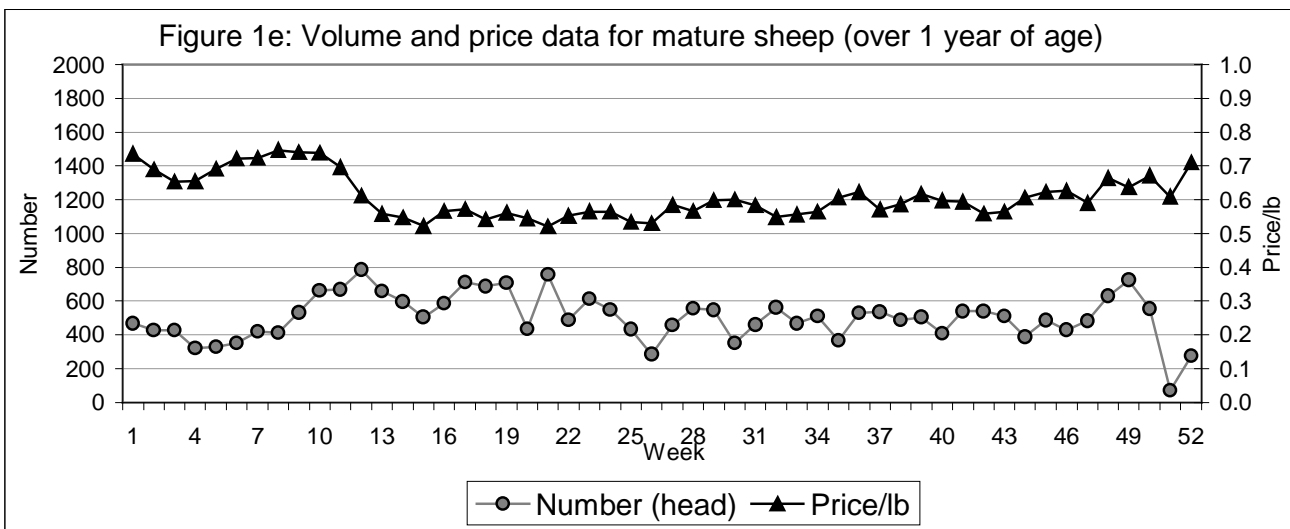
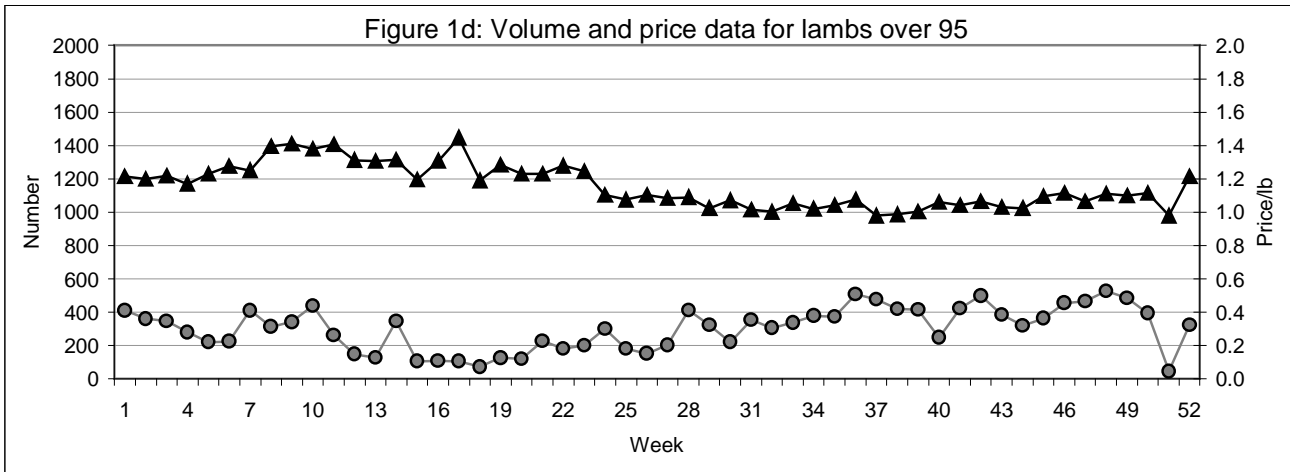
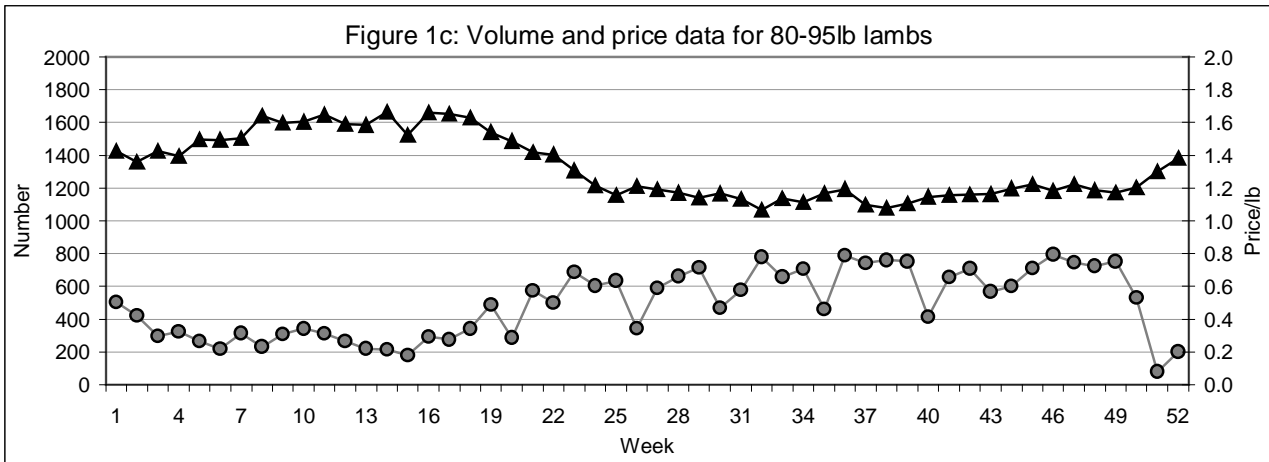
Graphs 1a-1e: The following five graphs show the numbers of animals sold and the average price per pound paid for various weight/age groups reported weekly from 14 Ontario sales barns during 1999-2001.

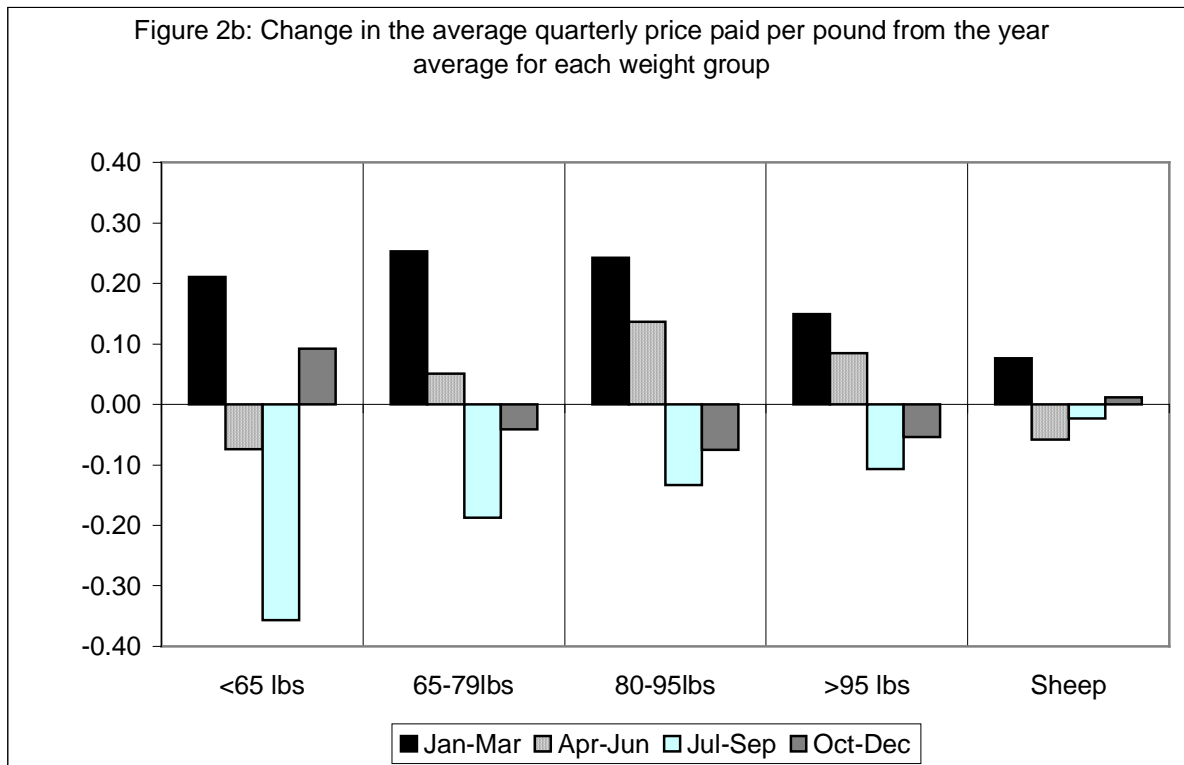
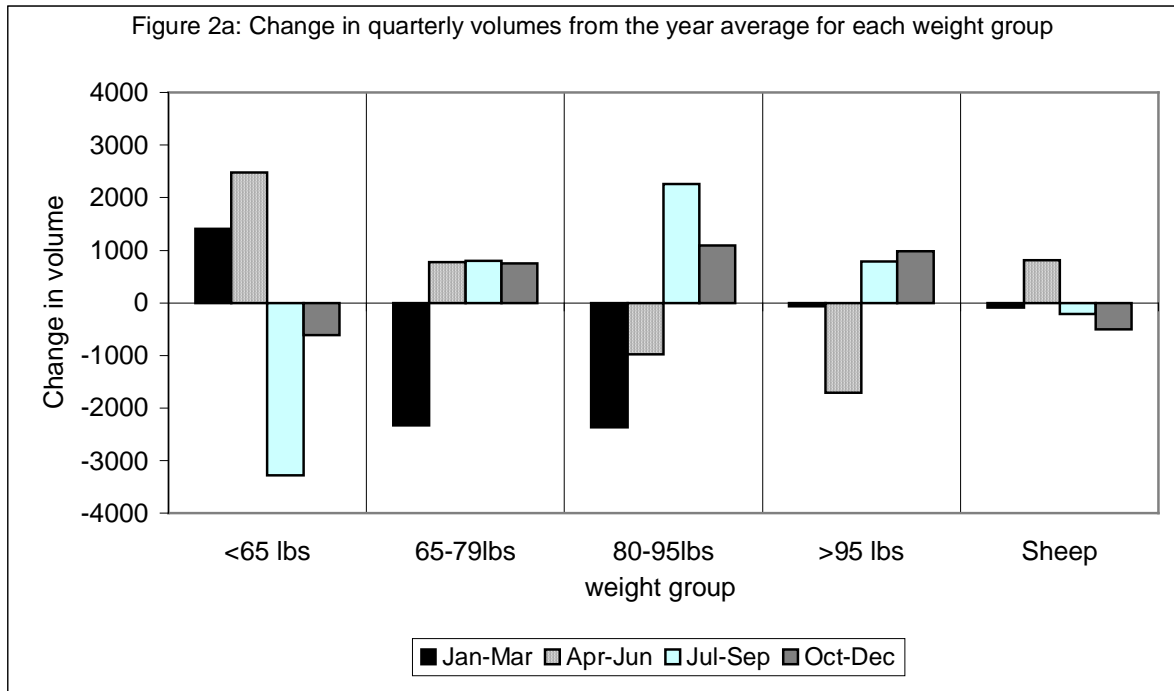
Months corresponding to the weeks plotted are:

- Jan (wk1-5); Feb (wk5-9); Mar (wk9-13); Apr (wk13-17)
- May (wk17-22); Jun (wk22-26); Jul (wk26-30); Aug (wk30-35)
- Sep (wk35-39); Oct (wk39-44); Nov (wk44-48); Dec (wk48-52)

Note: Values shown are representative of the years 1999-2002 only, and are intended to demonstrate possible seasonal variations. Values in a given year may be higher or lower than those shown.



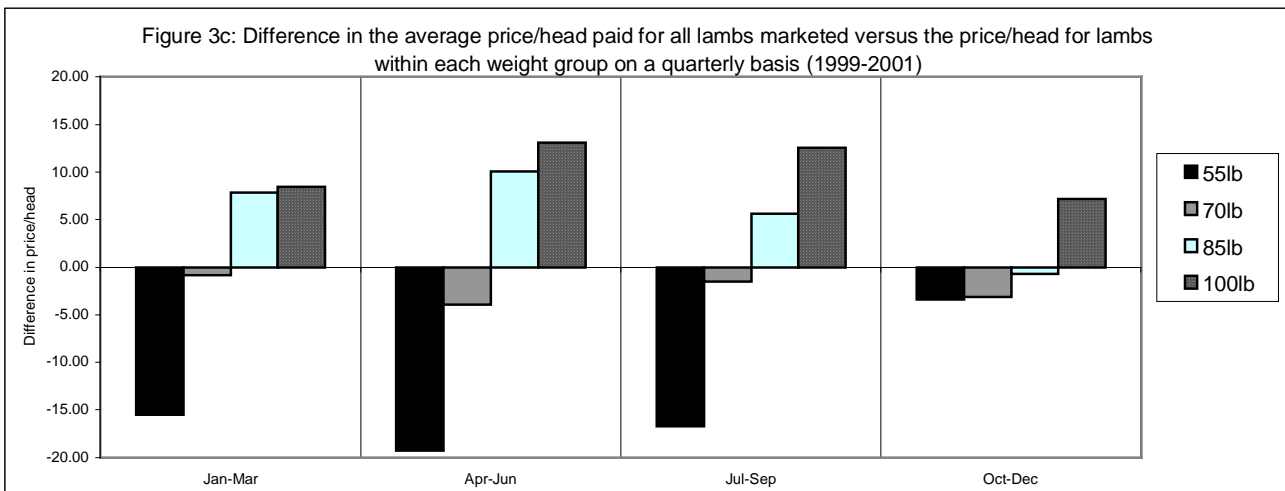
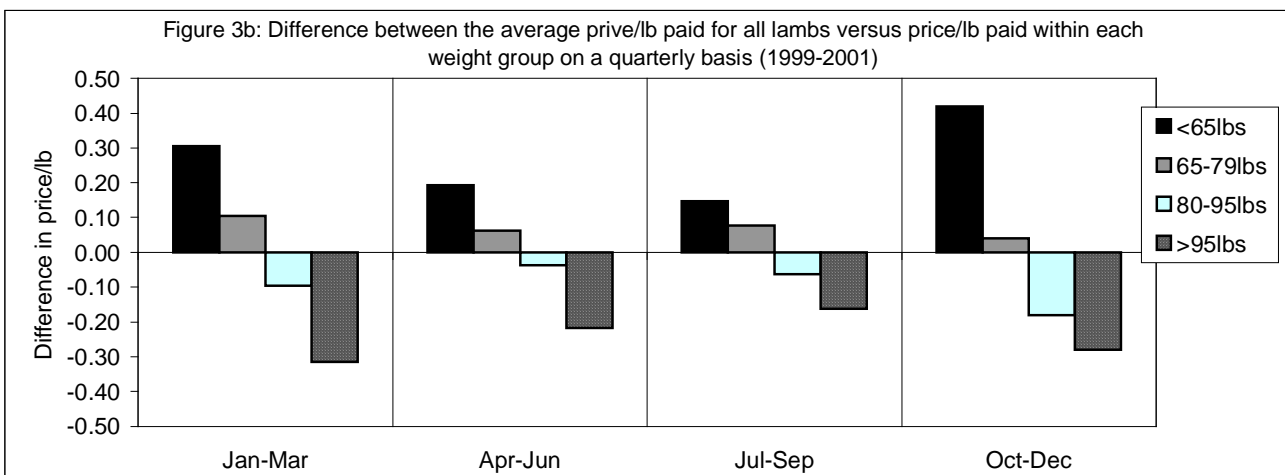
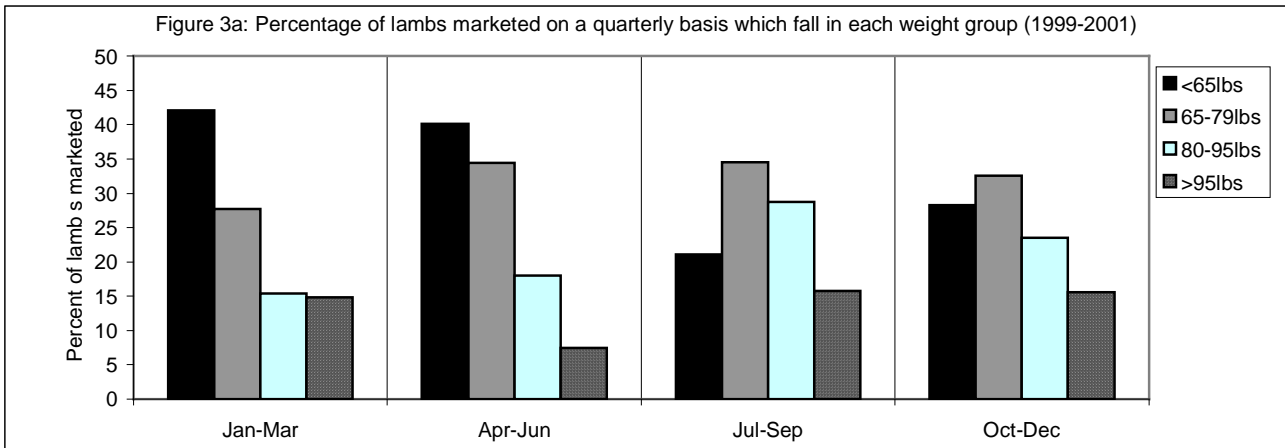




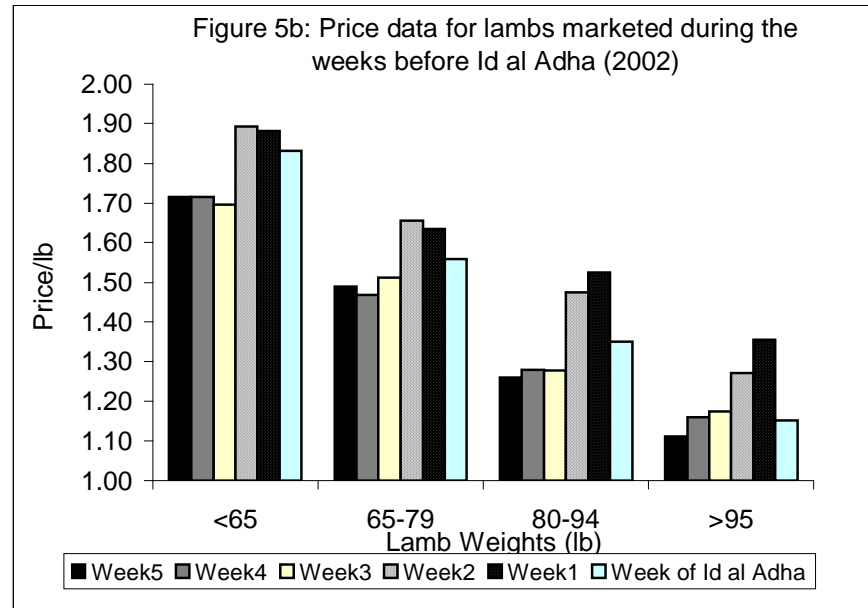
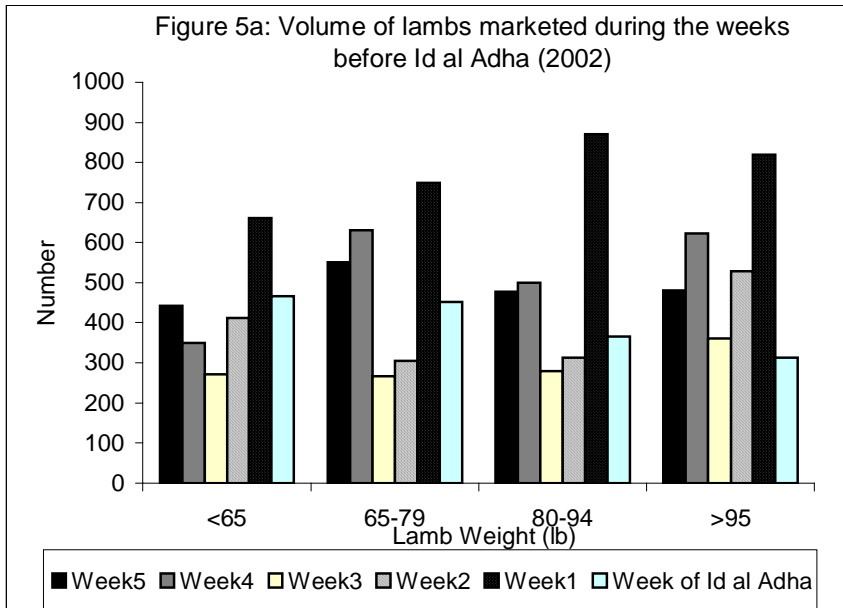
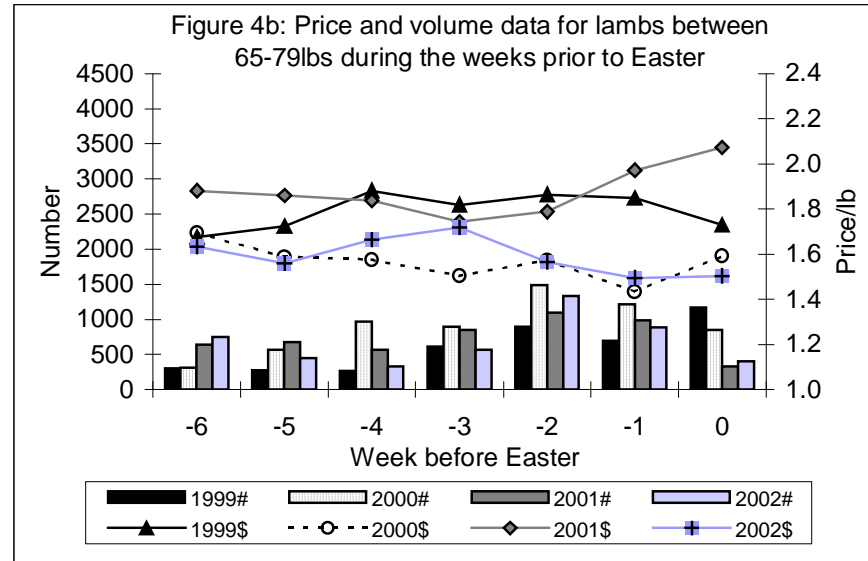
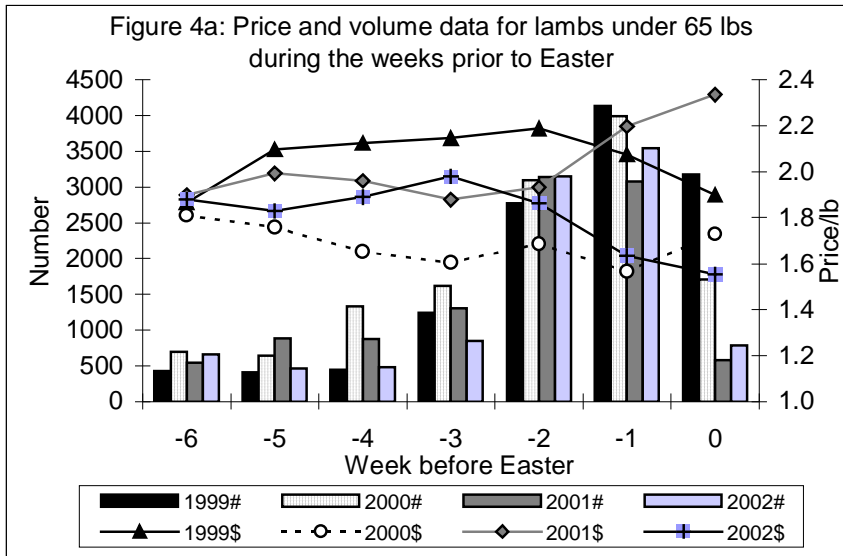
Figures 2a and 2b show the relationship between supply, demand, and the price paid by yearly quarter within each of weight group. The average for the year is represented by the mid-line (zero on the y-axis)

The top graph shows the change from the year average in the number of animals sold during each quarter. The bottom graph shows the change from the year average in the price paid per pound during each quarter.

Chapter 3: Marketing and Economics - Marketing Lamb in Ontario



Values for the graphs were derived from calculating the average across weight groups for each quarter, and subtracting the value for individual groups from the average. The overall average is represented by zero on the y-axis. Differences in supply (animals marketed) and the extra feed costs for producing heavy lambs must be taken into account when interpreting these graphs.



Chapter 3: Marketing and Economics - Marketing Lamb in Ontario

Appointed Sales Agents

SALESBARN	ADDRESS	PHONE #
Brussels Livestock	R.R.#3, Box 59, Brussels, ON N0G 1H0	(519)887-6461
Denfield Livestock Sales	R.R.#2, Denfield, ON N0M 1P0	(519)666-1140
D.H. Hickson Ltd.	R.R.#5, Campbellford, ON K0L 1L0	(705)653-3660
Embrun Livestock Exchange Ltd.	Box 340, Greely, ON KOA 1Z0	(613)821-2634
Galetta Livestock Sales	R.R.#1, Arnprior, ON K7S 3G7	(613)623-4467
Hagersville Auction Centre	R.R.#6, Hagersville, ON N0A 1H0	(905)768-5601
Keady Livestock Market Ltd.	R.R.#4, Tara, ON N0H 2N0	(519)934-2339
Kingston Stockyards	R.R.#6, Kingston, ON K7L 4V3	(613)548-8218
Lindsay-Woodvile Sale Barns	R.R.#2, Lindsay, ON K9V 4R2	(705)324-2774
Kawartha Lakes Cooperative Auction Market Inc.	580 Woodville Road, Woodville K0M 2T0	(705)439-4444
Niagara Livestock Sales	R.R.#3, Wainfleet, ON L0S 1V0	(905)899-1095
Norwich Livestock Sales Yard Ltd.	R.R.#1, Norwich, ON N0J 1P0	(519)468-6820
Ontario Livestock Exchange Inc.	P.O. Box 443, R.R.#1, Waterloo, ON, N2J 4A9	(519)884-2082
Ontario Stockyards Inc.	R.R.#1, Cookstown, ON LOL 1L0	(705)458-4000
Renfrew-Pontiac Livestock Ltd.	R.R.#3, Cobden, ON K0J 1K0	(613)646-7335
Selby Livestock Exchange	P.O. Box 99, Selby, ON K0K 2Z0	(613)354-4222
Talbotville Livestock Ex. Ltd.	P.O. Box 46, Talbotville, ON N0L 2K0	(519)631-1850
Temiskaming Livestock Exchange	P.O. Box 5196, New Liskeard, ON P0J 1P0	(705)647-5415
Vankleek Hill Livestock Exchange	114 Pendleton St., Box 134, Vankleek Hill, ON K0B 1R0	(613)678-3008

OSMA's Forward Contracting Program

- Premise:** By marketing large groups of uniform lambs, sold by rail grade to processors, Ontario Lamb will gain the market share needed to increase consumer awareness and consumption.
- Producer Benefit:** Provides an additional marketing option aiding producers in planning a risk management program.
- Carcasses are graded so producers obtain better returns for high yielding carcasses.
- Processor Benefit:** Processor receives consistent volumes of quality carcasses.
- Grading:** An independent, qualified grader grades all carcasses. The grader gives every carcass an index value, which is generated using a muscle score and muscle yield measurement. This index score is then used to determine the price of that carcass.
- Muscle scores are taken at the leg, loin, and shoulder, and fat depth measurements are taken at the 12th rib, 11 cm from the midline
- Pricing:** The base price for lambs is set using a rolling average of the 80-94 pound quoted price from the previous month's stockyard sales; less \$10. Differentials are added to or subtracted from this base price depending on the month that the lambs are delivered. The base price is then converted to a carcass weight price and the grading is over and above the carcass weight price.
- Participating Plants:** Currently there is one processing plant participating in forward contracting: Holly Park Meat Packers, Caledon, Ontario.
- Lambs are delivered to the processing plant by the producer on pre-arranged delivery days.
- Lamb Specifications:** Carcasses should weigh between 50-55 pounds, with, ideally 7-14 mm of fat. No animal by-products can be fed to the lambs at any time. In addition, lambs are to be youthful and clean, with no tags or burrs. It is also recommended that they be grain finished.

How to purchase a Forward Contract

Contact OSMA at 519-836-0043

Optimization of Production/Marketing Cycles for Sheep

A Gartshore-Funded Research Project

Revised December 1999

J.W. Fisher, Kemptville College, University of Guelph

Abstract:

This study aimed to determine **which production/marketing system would provide the most contribution margin given lamb size, price, and cost of production for a specified time period.** Three production systems for lamb were modeled: spring lambing; winter lambing; and accelerated lambing. The study focused on a seven-year period (1992 - 1998 inclusive), of actual market price and lamb size. Consensus meetings were held to determine the cost-of-production for each system in 1998, and was then indexed back over the seven years. Three optimizing (contribution margin maximizing) computer models were designed. One ewe would have earned \$357.20 in contribution margin over seven years in a spring lambing system. A winter lambing system would earn \$516.78 per ewe over seven years, and an accelerated lambing system would have a contribution margin of \$754.87 per ewe. In an accelerated Star lambing system, where ewes are bred every other month throughout the year, contribution margin falls to \$633.34 per ewe over the seven years. The preferred market for spring born lambs was heavy lambs around the Christmas period, whereas the favored markets for winter lambs were new crop and light lambs for the Easter and early summer barbeque seasons. Lamb markets preferred with an accelerated lambing system, were both the Christmas and Easter markets. These two markets were targeted about 70% of the time over all marketings during the seven-year period with an accelerated system. In the past five years price preference has shifted from small lambs to heavier lambs, even at Christmas and Easter.

Introduction:

Various production systems for sheep are in use in Ontario. Producers can lamb once a year (in-season or out-of-season), or accelerate their breeding to more than once per year. Although many producers in the industry have ewes that will breed out-of-season, they breed only once a year, usually in-season. When asked why the opportunity for accelerated lambing is not used, the reply is that it is not economically worthwhile.

This is a surprising assessment of a technology that should make the industry more competitive and producers more profitable. Though it is generally accepted that out-of-season breeding costs more, it is not well known how much more costly it actually is. Accelerated lambing means breeding each ewe more than one time per year. Of course to do this, ewes must be able to breed in any season of the year.

The Ontario lamb market identifies lamb using six classes: lambs less than 50 pounds; new crop lambs (usually a 50-60 pound lamb of premium quality, no longer defined as a class as of July 1998); light lambs weighing 50 to 79 pounds; 80 to 94 pound light lambs; heavy lambs weighing 95 to 109 pounds; and 110 pounds or higher heavy lambs. Each of these classes have highs and lows in market price, yet these fluctuations occur at different times of the year. To confuse the issue further, sheep are typically seasonal breeders - they prefer to breed as days get shorter, from September through January. Sheep breeds have been developed that will breed in all seasons (Dorset and Arcotts). Being able to produce lamb in all seasons enables farmers to provide the market with lamb at any time of the year.

In a spring lambing system ewes are bred in November, December, and January (in-season breeding) and lambs are born in April, May, and June - usually on pasture. The management style is very hands-off, and the ewes are left to fend for themselves on pasture with relatively little input and cost. The potential markets for spring born lambs are light lambs in June through to heavy lambs in December. For various reasons fecundity is typically quite low in a spring lambing operation. See Table 1A and 1B for production/marketing summaries for the three production systems.

A winter lambing system has ewes bred in August, September, and October (early in-season breeding) and lambs born in January, February, and March. The management style requires distinct organization and time input, particularly at lambing time. The potential markets for these lambs are new crop or light lambs in March, to heavy lambs in September (Table 1A). Fecundity is typically better than with spring lambing systems.

An accelerated lambing system operates when ewes can breed at any time during the year. Any target market is available with this system. However the requirement for management and labour is very high. Ewes have a production cycle of no more than eight months (approximately 35 weeks) with three lambings in two

years, or perhaps 7.2 months (approximately 32 weeks) with five lambings in three years ('Star' system). A Star system has ewes organized in 4 or 5 groups and one group is lambing while another group is breeding every 73 days.

Literature Review:

In 1990, S.H. Umberger compared three production systems at Virginia State University, where two out-of-season lambing systems and one in-season lambing system were assessed¹. This study showed that the in-season lambing system was the most profitable. This result was due to: sheep being more prolific during in-season heats; in-season breeding allowed the use of cheap pasture; and marketing occurred at peak price seasons of the year. What is not included is a comparison between spring lambing, winter lambing and accelerated lambing production systems.

B. McCutcheon spoke on costs for out-of-season lambing at Ridgetown College's Farmer's Week in 1990². Some guidelines were provided detailing added costs of accelerated breeding programs. Data is not available on a comparison of profit between production systems.

Cost of production studies have been published in Ontario for 1987³ and 1989⁴ by J.W. Fisher. The Ontario Ministry of Agriculture Food and Rural Affairs (OMAFRA) has also published sheep cost-of-production data on an annual basis up until 1997 in the Ontario Farm Management Analysis Project (OFMAP)⁵. Fisher's data, and that of OMAFRA, are average industry data and reflect a mixture of farm sizes and production systems. The average size of flock in Fisher's data (1989) was 274 ewes. Breeding occurred 1.0 times per year and yielded 1.43 market lambs per ewe, per year. The average flock size in the OFMAP (1997) data is 164.1 ewes. Again, breeding occurred 1.0 times per year and, in this study, yielded 1.74 marketed lambs per ewe, per year.

Neither Fisher (1989) nor OMAFRA (1997) made any attempt to identify cost-of-production budgets for producing lamb under various production systems. These published reports represent an average of all production systems found in the industry, and therefore no comparison between the various systems can be made.

The Ontario Sheep Marketing Agency (OSMA) commissioned a study in the late 1980's that identified input/output production parameters for sheep in Ontario. In this study, representative farms were surveyed, one for each region of Ontario. The Central and Southern Ontario farms operated under a semi-accelerated lambing system, having 1.3 lambings per year. The Eastern Ontario farm was using a spring lambing system, and the Northern Ontario farm was functioning under a winter lambing system. Because the report based its results on only one sample per area, it is difficult to draw conclusions about cost-of-production and profitability that are representative of the entire industry. The study did provide some information on physical inputs needed to produce sheep.

Alberta Agriculture (1983) published a cost-of-production report that, although it is out of date at this point, includes production input/output parameters for sheep⁶. As was the case in the OMAFRA study, this report is an average of all production systems in Alberta and comparisons of the different systems are not easy to make.

Thus, all in all, little is known about the economic merit of producing lamb in an accelerated system in Ontario versus a typical spring lambing season on pasture, or a typical winter lambing system.

The primary objective of this study is to assess **which system would produce the most contribution margin given lamb size, price, and cost of production.**

Cost data for the three production systems is not available in the literature, and so an objective of this study is to determine budgets for each of these three systems. This project will use the actual market price and lamb size data from 1992 through 1998, which is available from the Ontario Stockyards at Cookstown, as published in the Ontario Sheep News. This revenue data can be used in conjunction with cost data to create a computer model that will optimize contribution margin over time, given the limitations of the different production systems.

¹ Umberger, S.H., **Economics of Different Production Systems**, 1990, Virginia Polytechnic Institute and State University

² McCutcheon, B., **Farmer's Week**, Ridgetown College, 1990

³ Fisher, J.W., **Economics of Sheep Production - 1987**, OMAF

⁴ Fisher, J.W., **Ontario Livestock Cost of Production Report - 1989**, OMAF

⁵ **Ontario Farm Management Analysis Project**, Publication #69 - 1997, OMAFRA

⁶ Alberta Agriculture, **Alberta Sheep Production Manual**, 1983.

More specifically, the objectives of this project are:

- To summarize actual price and lamb size data by month from January 1992 through December 1998.
- To identify the quantities and associated costs of technical inputs needed to produce lamb in spring, winter and accelerated lambing production systems.
- To design a computer model for spring, winter and accelerated lambing production systems and determine the most profitable system.
- To identify the most profitable marketing strategy for each system.
- To convey the results obtained by this study to Ontario sheep producers.

Procedures:

Physical quantities of technical inputs used to produce lamb and their associated costs were collected by consensus group meetings. Two consensus meetings were held, one in Napanee, Ontario and the other in Orangeville, Ontario.

A consensus research meeting consists of a group of experts, pooling their knowledge and experience to negotiate an average or reasonable set of data. In this case, the groups of farming experts negotiated budgets for producing lamb in the three production systems for 1998 (Tables 3A & 3B).

The participants, twelve in all, were producers and extension specialists. The groups identified production inputs needed to produce lamb successfully at different times of the year under the various production systems. Data was negotiated for the 1998 fiscal year (Table 2C).

The challenge for the groups was to identify input/output parameters for a sheep operation that a capable manager could reasonably expect to achieve. The budgets were to reflect competent management with an entrepreneurial attitude, where at least a portion of family living allowance is expected to come from the sheep operation. What was not wanted, were budgets for smaller operations that had no expectation of true profit.

Consensus meetings work well when information is unavailable or difficult to collect. Sheep production in Ontario is such a case. Too few farmers produce sheep in large enough quantities for each of the three systems to be easily surveyed. Sheep production is often a part-time endeavor (the Ontario average is 36.1 ewes⁷) making it difficult to find enough large farms from which to collect data.

Price and size of market lamb data from the Ontario Stock Yards were summarized from 1992 to 1998. The Farm Input Price Index⁸ was used to adjust production costs for inflation for both ewes and lambs from 1998 back through 1992. Given the actual market revenue information and the indexed costs, monthly budgets were detailed for each of the three systems from January 1992 through to December 1998.

Fixed (or overhead) costs were not included in this project. The resource base on sheep farms across Ontario are so varied, that an average of these fixed costs would be meaningless within the budgets. It should therefore be noted that budgets in this project use contribution margin as the residual. This contribution margin is the return to fixed costs, operator labour and management.

Also, it should be generally accepted that accelerated lambing systems need better fixed resources than winter lambing and spring lambing systems. What the dollar values are for each system on average will depend very much on what is available on a particular farm.

An optimizing computer model was developed using a spreadsheet program (Lotus 1-2-3⁹). The program will identify the optimum month and size of lamb to produce for each production cycle during the 7 years. The program optimizes contribution margin before fixed costs, over time.

What is the most profitable system to use? What set of target markets should each production system be aiming for? What prevents producers from targeting other markets? Is accelerating ewes economically worthwhile? The analysis of the data will provide answers to these questions.

⁷ Statistics Canada, **Agriculture Profile of Ontario**, Catalogue no. 95-177-XPB, Table 22.1 July 1997

⁸ Statistics Canada, **Farm Input Price Index**, Catalogue no. 62-004-XPB, Table 2, fourth quarter 1995 and third quarter 1998.

⁹ Lotus 1-2-3, **Release 5**

Results and Discussion:

Actual price, volume, and size data from 1992 through 1998 were used¹⁰. This data is actual data throughout the time period, and need not be adjusted for inflation. Revenue per lamb was calculated monthly as a weighted average lamb value. This revenue was determined for each of the six size categories from January 1992 through December 1998.

Data from the two consensus meetings were averaged. The data was very close between meetings and did not reflect major variations in management. Input/output parameters for each production system are summarized in Table 2C.

Revenue data was collected during the consensus meetings as well. Productivity was recorded at 1.4 lambs weaned per ewe, per year for spring lambing, 1.75 for winter lambing and 2.55 for accelerated lambing.

Wool yield was 6.0 pounds per ewe for spring and winter lambing. Wool yields for the accelerated lambing system was 5.4 pounds per ewe. Average wool prices from 1992 to 1998 are shown in Table 6¹¹. Wool has not been included in the computer models due to the complexity to include it. Wool would add \$2.28 to the spring and winter lambing budgets per ewe, and \$2.05 to the accelerated lambing budget.

Other revenue items not included in the computer models are value added due to freezer trade, breeding stock, and forward contracts. It is recognized that each of these can add revenue and contribution margin to a business. The choice to leave them out was because some producers might participate in these and others may not. Participation in any of these value added activities should be individually assessed.

Physical inputs for spring lambing ewes are, for the most part, kept to a minimum compared to winter lambing ewes. On the other hand, winter lambing ewes have distinctly higher physical requirements, such as the following: they must be fed better; lambs must be creep fed; labour requirements are higher; bedding is required; building maintenance is higher; and predator control is less. For accelerated ewes, feed requirements are again significantly higher than winter lambing ewes. Other inputs greater than both winter and spring lambing systems include: higher labour requirements; increased supplies and medicines; higher bedding costs; and building maintenance. Accelerated lambing requires good facilities, use of hormone technology and a close consultative relation with the veterinarian. Unquestionably, overall inputs are greatly increased.

Feed costs represent about 50% of variable costs of producing sheep. Singularly the most expensive cost item, it is important to verify the accuracy of feed requirements. Feed requirements were re-calculated using the OMAFRA Sheep Ration Formulation program for ewes¹². The calculation is based on a 176 pound ewe with a body condition score of three, lambing 180 - 225%, and suckling twins. Total yearly intake of dry matter is projected to be 1,437 pounds for spring and winter lambing ewes, and 1,621 pounds for accelerated ewes.

This level of dry matter intake represents 2.23% of body weight (on a dry matter basis) for annual lambing, and 2.52% for accelerated lambing. Feed intake at these levels confirms the data collected during the consensus meetings.

Annual budgets for sheep are shown in Table 3. These are on a per lamb basis (Table 3A) and on a per ewe basis (Table 3B) for the 1998 fiscal year. On a per lamb basis, contribution margins deviate by only \$9.40 across the three systems. However on a per ewe basis, contribution margins are very different. Accelerated systems make 2.15 times more than spring lambing, and 1.58 times more than winter lambing.

Lambs can be sold at any time after weaning, yet as they are kept to heavier weights they incur costs, and so separate budgets were detailed for growing lambs. The input/output parameters are detailed in Table 2. The parameters are separated for feedlot (Table 2A) and pasture (Table 2B) lambs, and for lambs under 94 pounds and those 95 pounds and over. Many lamb costs are included in the ewe budgets and this is indicated by the abbreviation 'inc.' within the tables.

Average daily gain was reported by Umberger to be 0.82 pounds/day for feedlot lambs under 94 pounds, and 0.72 pounds/day for feedlot lambs over 94 pounds (Tables 1B, 2A and 2B). Average daily gains on pasture were 0.48 pounds/day for lambs under 94 pounds, and 0.20 pounds/day for lambs over 94 days. Feed efficiency

¹⁰ Ontario Sheep News, **January 1992 - December 1998**. Quotes on the Ontario Stockyards Inc., Cookstown

¹¹ Source: **Canadian Cooperative Wool Growers**, Ontario

¹² Gary Rossee, 1989. **Sheep Ration Formulation Program - Version 1.0**, Ontario Ministry of Agriculture, Food and Rural Affairs.

was reported by Sharpe et. al.¹³ and Aziz et. al.¹⁴ to be 4.3 for lambs under 94 pounds and 4.9 for lambs over 94 pounds.

Cost data was developed for each month in the same time period. The cost data from Table 3A plus lamb growing costs were indexed back through to 1992 using the Farm Input Price Index (1995, 1997).

With all the cost-of-production, marketing, and physical data collected, the computer models were detailed. Again, three models were used B one for each production system. The spring and winter lambing models were fairly straight-forward. Ewes lamb once a year, and lambing is restricted to certain months (as outlined in Table 1A). The model allowed the spring lambing system to produce 1.4 lambs per ewe per year, bringing total number of lambs produced over seven years to 9.8 (in 7 lambings). The winter lambing model produced 1.75 lambs per ewe per year, for a total of 12.25 (in 7 lambings) lambs over seven years.

The accelerated lambing model was much more complex. 1.7 lambs are produced every 8 months (2.55 lambs per year), so the maximum number of lambs produced over seven years was 17.63 (in 10.5 lambings). The challenge of modeling this was allowing it to choose markets according to many various constraints. The model was allowed the freedom to choose any set of 8 month periods during the seven years. The cycling can start anywhere, and depends on the relative contribution margin between 8 month sets. The model then chooses the set with the maximum contribution margin over time.

The three models were balanced by allowing total productivity as described above, to equal 9.80 spring lambs, 12.25 winter lambs, and 17.63 accelerated lambs over seven years. In this way, each system is competing in a fair manner. However, jamming may occur in the accelerated model. Unlike the spring and winter models, which start and stop on the calendar year, the accelerated model can start at any month. Therefore, to get 10.5 lambings in seven years, it must choose to start the cycling in the first month of the model. This may not be the most profitable month to start the process. If there is not enough freedom in the model to choose any month in the first year to start cycling, the model will jam the first lambing into January 1992. This will give a non-optimal solution if a more profitable starting point is found later in the year.

To avoid jamming the model, the accelerated model was run for seven years, and asked to choose 9.5 lambings (16.15 lambs in total). The model chose to start the cycling by selling a New Crop lamb in February 1992. Another effort used to prevent jamming was to allow the model to have the number of lambings *less than* or equal to 10.5 lambings. The optimal solution actually chose 10.375 lambings and 17.6375 lambs over the seven years.

The optimum solution for spring lambing (Table 4A) showed an overall contribution margin of \$357.20 per ewe over 7 years with 9.8 lambs sold. The model consistently favored heavier lambs in late fall. These lambs are primarily destined for the Christmas market. It should be remembered that this is the top of the market. This is the best a producer could expect to do in each period.

The best contribution margin for winter lambing (Table 4B) over 7 years with 12.25 lambs sold was \$516.78 per ewe. The model favored New Crop and light lambs in April and May. These lambs are mostly destined for the Easter and early summer barbecue markets.

The optimum contribution margin for the accelerated lambing system (Table 4C) was \$754.87 per ewe over the seven years. The model chose the December (Christmas) market or the March/April (Easter) market six times out of the 10.375 cycles. The 8-month cycle forces marketing in other seasons if overall contribution margin can be enhanced. The model chose markets in May, September, and October. The model did choose to lamb only once per year in 1992 and 1993. Both these years had poor market prices for lamb.

Some producers use the Star accelerated lambing system. The model was used to optimize this production pattern by lambing 0.25 times every 2 months. The optimal solution is seen in Table 4D. Overall contribution margin is \$633.34 per ewe over seven years. Therefore, spreading production over the year in a Star accelerated system helps maintain a consistent cash flow but decreases contribution margin B in this case by \$121.53 (16%).

Market trends have shifted since 1992, where a price preference is now seen for larger lambs instead of New Crop lambs, regardless of the system of production. This shift has been accompanied by a slight spreading out of the price preference to each size category. These trends show an increasing potential for accelerated lambing as more markets are becoming increasingly profitable to target. Table 5 summarizes the contribution margin per lamb, by month, from 1992 to 1998 for an accelerated lambing system.

¹³ P.H. Sharpe et.al. 1994, **Livestock Production for the 21st Century: Priorities and Research Needs**, P.A. Thacker, University of Saskatchewan, ISBN 0-88880-301-X, 94T-44

¹⁴ Aziz et.al., 1999 in press

Conclusions:

Accelerated lambing systems most certainly pay a return to the higher levels of management required. In this analysis, accelerated lambing systems returned 2.15 times more contribution margin than spring lambing and 1.58 times more contribution margin than winter lambing systems. Winter lambing provided more contribution margin than spring lambing by 1.36 times. The Star system remained competitive with winter and spring lambing, but contribution margins were reduced by sixteen percent when compared to the optimal accelerated lambing system.

Technical budgets have been prepared for each system of producing lamb, and it appears sheep production is profitable, given good management.

Without doubt, key markets at Christmas and Easter are favored above all other markets. Price preference has shifted to larger lambs in the past five years, although Christmas and Easter remain the markets of choice for any size lamb.

Acknowledgments:

I would like to thank the Gartshore family for their generous financial support. I thank the participants of the consensus meetings for their contributions, without which this research would not have been possible. Thanks to my summer student Jordan Jarjour for assistance with this project.

TABLE 1A
PRODUCTION SYSTEMS DEFINED

Spring Lambing	Breeding Season	Lambing Season	<50 pound sales	50-79 pound sales	80-94 pound sales	95-109 pound sales	>109 pound sales
	Nov Dec Jan	Apr May June	June July Aug	July Aug Sept	Aug Sept Oct	Sept Oct Nov	Oct Nov Dec
Winter Lambing	Breeding Season	Lambing Season	<50 pound sales	50-79 pound sales	80-94 pound sales	95-109 pound sales	>109 pound sales
	Aug Sept Oct	Jan Feb Mar	Mar Apr May	Apr May June	May June July	June July Aug	July Aug Sept

TABLE 1B
DAILY GROWTH FOR PASTURE & FEEDLOT LAMBS

Average Weight Within The Six Weight Groups	Pasture Lambs		Feedlot Lambs	
	Age (days)	Average Daily Gain	Age	Average Daily Gain
42 lbs.	60 (weaning)	0.48 lbs./day	60 (weaning)	0.82 lbs./day
61 lbs.	100	0.48 lbs./day	83	0.82 lbs./day
64 lbs.	106	0.48 lbs./day	87	0.82 lbs./day
85 lbs.	150	0.48 lbs./day	112	0.82 lbs./day
99 lbs.	179	0.20 lbs./day	130	0.72 lbs./day
115 lbs.	259	0.20 lbs./day	152	0.72 lbs./day

**TABLE 2A : FEEDLOT LAMBS (per lamb)
PHYSICAL INPUTS – WEANING TO MARKET**

COST ITEM	Inputs & Costs (50 - 94 lbs.)	Inputs & Costs (> 94 lbs.)
Forage	0.38 kg/day	0.38 kg/day
Grain	1.26 kg/day	1.26 kg/day
Salt/Minerals/Vitamins	0.57 kg for whole period	0.57 kg for whole period
Labour	1.5 hours/week/100 lambs	1.5 hours/week/100 lambs
Veterinary Medicines	\$2.00 /lamb	\$2.00 /lamb
Marketing Expenses	\$10.00 /lamb	
Bedding	0.2 - 0.5 bales/lamb	0.2 - 0.5 bales/lamb
Average Daily Gain	0.82 lbs./day	0.72 lbs./day
Feed Efficiency Ratio	4.3 : 1	4.9 : 1
Number of Days	54	

**TABLE 2B : PASTURE LAMBS (per lamb)
PHYSICAL INPUTS – WEANING TO MARKET**

COST ITEM	Inputs & Costs (50 - 94 lbs.)	Inputs & Costs (> 94 lbs.)
Forage	inc.	inc.
Grain	1.26 kg/day for one month	
Salt/Minerals/Vitamins	inc.	inc.
Labour	inc.	inc.
Veterinary Medicines	\$2.00 /lamb	\$2.00 /lamb
Marketing Expenses	\$10.00 /lamb	
Bedding	inc.	inc.
Average Daily Gain	0.48 lbs./day	0.20 lbs./day
Feed Efficiency Ratio	4.3 : 1	4.9 : 1
Number of Days	92	

TABLE 2C
ANNUAL PHYSICAL INPUTS (Per Ewe)

COST ITEM	Spring Lambing	Winter Lambing	Accelerated Lambing
Forage	400 kσ	440 kσ	550 kσ
Grain	27 kg	56 kg	115 kg
Green Feed	0 kσ	20 kσ	30 kσ
Salt/Minerals/Vitamins	\$2.00 - \$3.00	\$2.00 - \$3.00	\$3.00
Pasture (\$50/acre)	0.2 ac @ \$50.00	\$5.00	\$8.50
Labour	0.75	1.25	1.75
Fuel	5.0 litres	5.0 litres	5.0 litres
Repair & Maintenance	1 x fuel	1 x fuel	1 x fuel
Custom Shearing	\$3.00	\$3.00	\$3.30
- Manure &	\$2 + \$0.78	\$2 + \$0.78	\$2 + \$1.73
Sheep Supplies	\$1.13	\$1.75	\$3.00
Veterinary Services	\$1.00	\$1.00	\$1.00
Veterinary Medicines	\$2.00	\$2.75	\$10.00
Marketing Costs	\$1.50		
Bedding	0	1.5 bales per ewe	2.5 bales per ewe
Building and Fence Repair	\$1.00 + \$3.00	\$1.50 + \$1.75	\$1.00 + \$3.00
Predator Control	\$300 per 200 ewes	\$300 per 400 ewes	\$300 per 200 ewes
Predator Control	\$1.50	\$0.75	\$1.50
REVENUE ITEMS			
Lambs Weaned Per Ewe	1.40	1.75	2.55
Wool Produced Per Ewe	6.0 lbs. (@ \$0.32/lb.)	6.0 lbs.	5.4 lbs.
Value Added for Freezer Trade			
Value Added for Breeding Stock	\$4.50	\$4.50	\$21.69
Value Added for Forward Contracts			
OVERHEAD ITEMS			
Value of Each Ewe	\$150.00	\$150.00	\$200.00
Value of Each Ram	\$350.00	\$350.00	\$375.00
Ewe \$ to Ram \$ ratio	50 : 1	50 : 1	35 : 1
Life of Ewes	6	6	6
Life of Rams	4	4	4

TABLE 3A
ANNUAL LAMB BUDGETS* (1998 per lamb)

REVENUE ITEMS	Spring Lambing	Winter Lambing	Accelerated Lambing
Lamb Sales	120.00	120.00	120.00
Wool Sales	1.63	1.30	0.81
Value Added From Breeding Stock	3.21	2.57	8.60
Value Added From Freezer Trade			
Value Added From Stabilization			
Value Added From Forward Contracts			
Total Revenue	\$124.84	\$123.87	\$129.41
COST ITEMS			
Forage	25.71	22.65	19.36
Grain	2.71	4.55	6.53
Creep Feed	0.00	3.99	4.12
Salt/Minerals/Vitamins	1.79	1.43	1.18
Pasture	7.14	2.86	3.31
Hired Labour	4.29	5.69	5.56
Fuel	1.61	1.29	0.89
Equipment Repair & Maintenance	1.61	1.29	0.89
Custom Shearing	2.14	1.72	1.30
Custom Manure Cleaning	1.43	1.14	0.79
Custom Ultrasound	0.55	0.45	0.71
Sheep Supplies	0.80	1.00	1.18
Veterinary Services	0.71	0.56	0.38
Veterinary Medicines	1.43	1.57	3.98
Marketing Expenses	1.07	0.86	0.59
Bedding	0.00	1.14	1.37
Building Repairs	0.71	0.86	0.39
Fence Repairs	2.14	0.99	1.13
Predator Control (dogs)	1.07	0.43	0.59
Predator Control (other)	1.07	0.43	0.59
Ewe Cost - Depreciation	5.36	4.29	6.23
Ewe Cost - Interest	7.29	5.83	4.80
Ram Cost - Depreciation	0.63	0.50	0.57
Ram Cost - Interest	0.12	0.10	0.11
Total Costs	\$71.38	\$65.62	\$66.55
Net Contribution Margin	\$53.46	\$58.25	\$62.86

* All values are on a *per lamb to weaning, per year* basis.

TABLE 3B
ANNUAL EWE BUDGETS* (1998 per ewe)

REVENUE ITEMS	Spring Lambing	Winter Lambing	Accelerated Lambing
Lamb Sales	168.00	210.00	306.00
Wool Sales	2.28	2.28	2.05
Value Added From Breeding Stock	4.50	4.50	21.69
Value Added From Freezer Trade			
Value Added From Stabilization			
Value Added From Forward Contracts			
Total Revenue	\$174.78	\$216.78	\$329.74
COST ITEMS			
Forage	36.00	39.60	49.46
Grain	3.80	7.92	16.19
Green Feed	0.00	6.98	10.46
Salt/Minerals/Vitamins	2.50	2.50	3.00
Pasture	10.00	5.00	8.50
Hired Labour	6.00	10.00	14.00
Fuel	2.25	2.25	2.25
Equipment Repair & Maintenance	2.25	2.25	2.25
Custom Shearing	3.00	3.00	3.30
Custom Manure Cleaning	2.00	2.00	2.00
Custom Ultrasound	0.78	0.78	1.73
Sheep Supplies	1.13	1.75	3.00
Veterinary Services	1.00	1.00	1.00
Veterinary Medicines	2.00	2.75	10.00
Marketing Expenses	1.50	1.50	1.50
Bedding	0.00	2.00	3.50
Building Repairs	1.00	1.50	1.00
Fence Repairs	3.00	1.75	3.00
Predator Control (dogs)	1.50	0.75	1.50
Predator Control (other)	1.50	0.75	1.50
Ewe Cost - Depreciation	7.50	7.50	15.83
Ewe Cost - Interest	10.20	10.20	12.20
Ram Cost - Depreciation	0.88	0.88	1.43
Ram Cost - Interest	0.17	0.17	0.27
Total Costs	\$99.96	\$114.78	\$168.87
Net Contribution Margin	\$74.82	\$102.00	\$160.87

*All values are on a *per ewe, per year* basis.

TABLE 4A (per lamb)
OPTIMUM Contribution Margin FOR A SPRING LAMBING SYSTEM

YEAR	MONTH	SIZE OF LAMB	Contribution margin
1992	December	> 110 lbs.	\$27.41
1993	December	> 110 lbs.	\$36.59
1994	November	95 - 109 lbs.	\$35.56
1995	December	> 110 lbs.	\$43.77
1996	November	95 - 109 lbs.	\$47.33
1997	October	95 - 109 lbs.	\$42.57
1998	October	> 110 lbs.	\$21.91
MAXIMUM Contribution margin* per ewe over seven years (sum x 1.4)			\$357.20
		N = 9.8 Lambs	

* Maximum contribution margin is defined for one ewe over the seven year period, and is the sum of the individual contribution margins multiplied by the average lambs weaned per ewe for the given lambing system.

TABLE 4B (per lamb)
OPTIMUM Contribution Margin FOR A WINTER LAMBING SYSTEM

YEAR	MONTH	SIZE OF LAMB	Contribution margin
1992	April	New Crop	\$16.16
1993	May	80 - 94 lbs.	\$29.47
1994	May	80 - 94 lbs.	\$29.23
1995	May	80 - 94 lbs.	\$54.68
1996	April	New Crop	\$47.65
1997	May	80 - 94 lbs.	\$56.58
1998	April	50 - 79 lbs.	\$61.54
MAXIMUM Contribution margin per ewe over seven years (sum x 1.75)			\$516.78
		N = 12.25 Lambs	

TABLE 4C (per lamb)
OPTIMUM Contribution Margin FOR AN ACCELERATED* LAMBING SYSTEM

YEAR	MONTH	SIZE OF LAMB	Contribution margin
1992	February	New Crop	\$17.32
1992	December	New Crop	\$45.46
1993	December	New Crop	\$53.30
1994	September	80 - 94 lbs.	\$24.32
1995	May	80 - 94 lbs.	\$52.87
1995	December	New Crop	\$65.07
1996	December	New Crop	\$53.08
1997	October	95 - 109 lbs.	\$29.02
1998	April	50 - 79 lbs.	\$60.61
1999	March	95 - 109 lbs.	\$42.99
MAXIMUM Contribution margin per ewe over seven years (sum x {2.55 / 3/2})			\$754.87
	N = 17.6375 Lambs		

* Accelerated Lambing allows for 3 lambings in 2 years.

TABLE 4D (per lamb)
OPTIMUM Contribution Margin – STAR ACCELERATED LAMBING SYSTEM

YEAR	NUMBER	MONTH	SIZE	Contribution margin
1992	0.25	February	New Crop	\$4.33
1992	0.25	April	New Crop	\$3.69
1992	0.25	June	New Crop	\$2.16
1992	0.25	August	New Crop	\$2.81
1992	0.25	December	New Crop	\$11.37
1993	0.25	January	> 110 lbs.	\$9.01
1993	0.25	February	New Crop	\$10.50
1993	0.25	May	80 - 94 lbs.	\$6.99
1993	0.25	September	> 110 lbs.	\$3.95
1993	0.25	November	> 110 lbs.	\$5.72
1993	0.25	December	New Crop	\$13.33
1994	0.25	January	> 110 lbs.	\$7.45
1994	0.25	February	New Crop	\$9.20
1994	0.25	May	80 - 94 lbs.	\$6.90
1994	0.25	June	New Crop	\$4.74
1994	0.25	September	80 - 94 lbs.	\$6.08
1994	0.25	October	New Crop	\$6.73
1994	0.25	December	New Crop	\$16.90
1995	0.25	February	New Crop	\$12.47
1995	0.25	May	80 - 94 lbs.	\$13.22
1995	0.25	August	95 - 109 lbs.	\$6.04
1995	0.25	October	New Crop	\$10.97
1995	0.25	November	> 110 lbs.	\$6.37
1995	0.25	December	New Crop	\$16.27
1996	0.25	March	80 - 94 lbs.	\$11.08
1996	0.25	April	New Crop	\$11.31
1996	0.25	July	80 - 94 lbs.	\$6.56
1996	0.25	November	> 110 lbs..	\$5.33
1996	0.25	December	New Crop	\$13.27
1997	0.25	January	> 110 lbs.	\$9.22
1997	0.25	April	95 - 109 lbs.	\$15.23
1997	0.25	May	80 - 94 lbs.	\$13.73
1997	0.25	July	80 - 94 lbs.	\$7.439
1997	0.25	October	95 - 109 lbs.	\$7.26
1997	0.25	November	80 - 94 lbs.	\$8.43
1997	0.25	December	New Crop	\$12.68
1998	0.25	April	50 - 79 lbs.	\$15.15
1998	0.25	April	95 - 109 lbs.	\$13.51
1998	0.25	June	New Crop	\$5.82
1998	0.125	August	50 - 79 lbs.	\$1.65
1999	0.25	January	> 110 lbs.	\$6.97
1999	0.25	March	95 - 109 lbs.	\$10.75
Maximum Contribution margin per ewe over seven years (sum x {2.55 / 3/2}).....				\$633.34
N =17.637	Lambs			

TABLE 5
ACCELERATED LAMBING – Contribution Margin PER LAMB

by Month (1998)

Year	Month	50-79 lbs.	80-94 lbs.	95-109 lbs.	>110 lbs.	New Crop
1992	Jan					
	Feb	5.71				17.32
	Mar	9.80	8.73			14.86
	Apr	12.81	4.31	10.58		14.76
	May	10.67	11.84	5.66	4.69	10.90
	June	4.30	2.35	-1.84	0.86	8.62
	July	0.53	0.04	-1.11	-11.81	6.88
	Aug	-0.27	-2.76	-3.86	-5.50	11.23
	Sept	2.12	-1.10	-2.80	-3.31	15.66
	Oct	1.83	-3.03	-1.51	-2.01	29.57
	Nov	13.06	7.53	2.88	2.52	26.41
	Dec	22.74	13.99	17.17	17.18	45.46
1993	Jan	23.82	29.62	29.70	36.05	44.39
	Feb	27.12	29.31	38.48	37.10	41.99
	Mar	23.75	29.82	29.49	33.48	18.28
	Apr	23.91	33.10	25.88	25.71	18.68
	May	17.47	27.95	25.16	9.62	13.90
	June	13.25	17.27	11.11	20.62	10.60
	July	11.10	8.93	11.36	11.88	20.89
	Aug	4.58	1.35	3.78	-5.08	22.34
	Sept	17.66	8.76	5.98	15.82	15.08
	Oct	12.81	8.07	8.06	8.45	28.11
	Nov	18.36	18.85	20.30	22.89	38.72
	Dec	34.76	27.40	16.64	26.09	53.30
1994	Jan	35.55	28.78	29.33	29.80	-64.83
	Feb	20.84	23.52	18.50	15.60	36.82
	Mar	25.34	27.33	21.51	16.72	30.99
	Apr	23.05	10.99	0.52	7.93	22.12
	May	24.87	27.59	14.10	19.11	24.92
	June	16.89	18.69	24.94	9.07	18.96
	July	15.62	18.76	19.39	14.36	23.93
	Aug	10.87	6.56	8.48	0.04	16.65
	Sept	13.84	24.32	14.06	16.11	23.93
	Oct	21.88	20.70	16.82	9.64	26.93
	Nov	30.29	25.40	24.08	17.77	52.14
	Dec	23.01	15.58	26.27	16.32	67.58
1995	Jan	31.02	29.69	31.91	24.62	49.16
	Feb	42.30	44.28	35.26	33.25	49.87
	Mar	30.47	41.00	45.00	37.56	38.48
	Apr	43.48	38.68	38.31	42.84	43.99
	May	30.47	52.87	25.95	35.26	32.58
	June	10.09	17.91	26.12	11.82	16.06
	July	21.39	15.94	22.40	14.92	23.95
	Aug	21.74	21.69	24.16	21.41	24.28

Chapter 3: Marketing and Economics – Optimization of Production/Marketing Cycles

Year	Month	50-79 lbs.	80-94 lbs.	95-109 lbs	>110 lbs.	New Crop
	Sept	20.46	20.82	21.26	20.55	37.08
	Oct	29.47	26.15	23.47	23.91	43.88
	Nov	33.10	26.00	27.17	25.46	50.43
	Dec	37.91	34.83	34.53	33.32	65.07
1996	Jan	47.11	42.58	44.24	36.41	57.57
	Feb	41.30	39.06	50.91	44.54	
	Mar	50.74	44.32	61.46	51.40	45.69
	Apr	41.86	44.49	39.48	43.71	45.24
	May	14.76	27.11	28.22	6.16	18.76
	June	18.64	23.71	15.02	17.55	23.54
	July	22.66	26.23	29.13	24.84	20.85
	Aug	1.87	7.12	8.37	-41.38	
	Sept	20.51	19.93	18.34	14.75	26.25
	Oct	20.61	15.38	19.51	7.61	26.71
	Nov	32.00	28.02	29.16	21.33	35.16
	Dec	26.41	25.59	21.56	25.76	53.08
1997	Jan	40.65	42.83	41.29	36.89	36.11
	Feb	44.75	50.19	51.04	51.93	60.84
	Mar	46.53	58.74	63.22	48.53	52.32
	Apr	46.19	48.68	60.91	58.01	50.47
	May	39.60	54.93	37.47	19.59	39.71
	June	25.52	41.16	39.42	14.90	26.15
	July	22.46	29.72	26.34	-14.03	
	Aug	22.54	20.25	21.36	-17.22	17.83
	Sept	22.03	23.65	20.71	-12.63	34.07
	Oct	23.94	25.52	29.02	-9.28	
	Nov	42.10	33.71	27.73	-2.01	
	Dec	47.84	26.38	21.43	-15.92	50.72
1998	Jan	55.21	47.49	42.25	-5.27	
	Feb	43.22	46.84	50.12	6.08	
	Mar	46.97	24.94	51.01	6.14	
	Apr	60.61	55.94	54.03	-4.73	
	May	25.24	30.89	50.08	-10.29	
	June	17.02	28.02	36.07	-24.28	23.28
	July	17.83	15.61	11.09	-21.48	
	Aug	13.20	9.07	12.85	-18.80	
	Sept	7.28	4.32	6.09	4.64	
	Oct	17.56	4.84	3.01	5.14	
	Nov	27.85	13.25	6.98	9.82	
	Dec	37.47	15.76	10.02	8.81	
1999	Jan	41.09	31.92	22.03	27.89	
	Feb		28.44	22.96	13.63	
	Mar			42.99	35.41	
	Apr				41.18	

TABLE 6
AVERAGE WOOL PRICES*

YEAR	AVERAGE PRICE (cents per pound)
1992	0.23
1993	0.20
1994	0.35
1995	0.57
1996	0.37
1997	0.38
1998	0.32

* Source: Canadian Wool Growers Cooperative Inc.

Business Management Tools

There are several business management worksheets available free of charge to Ontario farmers from OMAF. Visit their website at www.gov.on.ca/OMAFRA/english/busdev/agbusdev.html or contact OMAF directly to receive worksheets. A partial list of available worksheets are listed below.

OMAF Contact:

John Molenhuis
Economic Development Branch,
R.R.#3, 95 Dundas Street East
Brighton ON K0K 1H0

Ph. (613)475-9472 Fax. (613) 475-3835

john.molenhuis@omafra.gov.on.ca

The Ontario Land Rent Estimator

[olre.exe](#) (205k, self-extracting file): The Ontario Land Rent Estimator was originally developed at the University of Illinois and has been adapted for Ontario. It is a spreadsheet that calculates returns and costs for the tenant and landlord under three rental arrangements: share rent, cash rent and dry bushel basis.

The OMAFRA Loan Calculator

[Loancal2.exe](#) (180.5k, self-extracting file) OMAFRA Loan Calculator: An Excel Version 7.0 (Also works in Excel 97) based Spreadsheet worksheet which includes: Payment Schedule, 3 Loan Comparison Sheets, Loan Prepayment Schedule, Refinancing Schedule plus other Schedules and Graphics. Download the program or access the web version of the [Loan Calculator](#).

Land Leasing Tools

[Land Leasing Tools.xls](#) is a set of worksheets that allow you to examine various types of leasing arrangements. Landlords and tenants can look at their costs and determine if the leasing arrangement is suitable for them. The Crop Share Calculator calculates the appropriate crop share split for a landlord and tenant and analyses the projected net incomes

The Capital Investment Analyser

[Capbudget99.exe](#) is a 283k self extracting file containing the OMAFRA Capital Investment Analyser and Manual. The Capital Investment Analyser is an Excel based worksheet developed to help business managers evaluate capital investment alternatives. The worksheet includes cash flow projections and after tax analysis. Download the program in Excel 97 ([Capbudget99.exe](#)).

The Farm Business Analyser

[Farm Business Analyser.xls](#) (88k, Excel file) The OMAFRA Farm Business Analyser is a thumbnail farm analysis program designed to calculate profitability, solvency (financial strength), financial efficiency and debt servicing capacity. The program allows you to enter financial information from your income tax statement and uses it to analyse your business performance. Your farm business can be compared with benchmark information from farms who have participated in the Ontario Farm Management Analysis Project. The program is in Microsoft Excel format. Download the program or access the web version of the [Farm Analyzer](#).

The Building Rent Calculator

[RentBldg.xls](#) (24k, Excel File) Owners of farm buildings frequently ask "What is a fair rent for my farm buildings? How do you arrive at either a fair asking price, or at a fair offer price for a building rental? This program will help you calculate a fair rent for your building. For more details on how to understand and use the template download the [Renthelp.doc](#) (21k - MS Word) file.

Chapter 3: Marketing and Economics - Business Management Tools

The Risk Return Analyser

[Riskprog.xls](#) The Risk Return Analyzer will assess the risk of any business venture. For more details on how to understand and use the template download the [Riskhelp.doc](#) (20k - MS Word) file. For more indepth discussion of risk analysis and how this can be used in your business download [BearPlus.doc](#) (50k - MS Word).

Hay Cost of Production Worksheet

[Haycost.xls](#) (96k, Excel File - updated March 2001) The hay cost of production worksheet is designed to calculate cost of producing dry hay. It reflects the various variables that make up costs ie. yield, establishment costs, type and weight of packaging, number of cuts, return on investment of land, storage and equipment costs.

Grass Stocker Worksheet (Cattle)

The [Grass Stocker Worksheet.xls](#) is an excel worksheet for calculating the return and the margin of placing stockers on grass pasture.

Machinery Tools

[Machinery Tools.xls](#) is an excel worksheet that contains a machinery cost calculator, cost charts, factsheets on machinery tax and budgeting, a comparison worksheet that looks at machinery replacement options including purchase, repair, lease and custom hire. It also has a simple cash basis lease worksheet.

The Land Cost Calculator

[The Land Cost Calculator.xls](#) is an excel worksheet that allows you to examine the cost of owning land and what you can afford to pay for it using a number of worksheets.

The Farm Financial Analysis and Planning Workbook

The Farm Financial Analysis and Planning Workbook - [Publication 37 ver1.xls](#) is an excel worksheet based on OMAFRA publication 37. It contains a full set of current and projected financial statements including a cash flow statement, debt servicing and inventory worksheets.

The Equipment Lease Analyser

The [Equipment Lease Analyser.xls](#) is an excel spreadsheet that compares the the cost of leasing equipment to purchasing. This can be done by using the simple calculator or the cashflow analyser. Other options are compared such as the cost of buying used and repairing equipment.

Ontario Farm Management Analysis

Background

The Purpose of Ontario Farm Management Analysis Project (OFMAP) is to provide management information to farmers. With financial and production reports you are better able to identify profitability, strengths and weaknesses and efficiency of your farm business. OFMAP gives you the opportunity to compare your farms financial results with budgeted plans for the year and previous years. With continuous participation you are able to compare year over year trends relative to other Ontario farms. The OFMAP program files are computer spreadsheet based workbooks with versions tailored to each major farm commodity group. Each workbook contains comparative information based upon averages of farms received by the project. Comparative data is updated when available.

Each program will produce accrual statements. The program has built in calculations to show financial strength, efficiency, and profitability. Enterprise reports show costs and returns per unit of production.

How to Participate

Entering Your Farm Data

Download the version of OFMAP software applicable to your type of farm business (*Note: Program available for sheep producers*)

1. . You will require Micosoft Excel 97. Certain options such as printing via the print menu may not function in other spreadsheet programs. Contact [OMAFRA](#) if you have questions about other versions of the programs above or other spreadsheet programs.
2. If you are unable to use the computerized versions of OFMAP contact [OMAFRA](#) to obtain a copy of Publication 116, The Farm and Enterprise Analysis Input Workbook. This workbook can be completed and sent to OMAFRA processing. Comparative financial reports will be returned to the producer free of charge.
3. The files are downloaded in self-extracting archive format. Once you have downloaded the file, open or "run" the file to extract the Excel file. The files will unarchive to the subdirectory C:\OFMAP01. A basic knowledge of Excel is necessary.
4. The OFMAP programs include a single page for entering farm financial and production information. Other pages in the workbook contain useful farm management tools; a cashflow statement to project next years loan requirements, a loan calculator, silo charts and a page of definitions and background information on the ratios and formulas used.

Program Benefits

Farm Report: Using the menus in Excel, you can produce a comparative accrual based report for your business. Benchmark averages are built into each spreadsheet. From the report, you can determine the performance of your farm relative to other Ontario farms.

Progress Report: This is comparative report spanning 5 year period. The report uses 8 different graphs to show trends in farm income, investment and production relative to Ontario benchmark information. Send or email your completed worksheet file to the OFMAP office to enable your data to added to the Ontario Benchmark Averages. In return, OMAFRA will provide you with a 5 year Progress report for your farm. Individual farm data is needed to create and maintain benchmark averages. OMAFRA appreciates your participation.