



# PLANNING FOR PROFIT



BRITISH  
COLUMBIA

Ministry of Agriculture,  
Food and Fisheries

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## Dairy Sheep - 100 Ewes - Kamloops/North Okanagan

This information is a tool to project costs and returns for B.C. farm enterprises and is a general guide to plan individual farm operations.

The sample budget should be used as a guide only and should not be used for business analysis. Each farm should develop their own budget to reflect their production goals, costs and market prices.

Information regarding financial planning and other enterprise budgets may be downloaded from the internet at <http://www.FBMInet.ca/bc> or obtained from your local office of the B.C. Ministry of Agriculture, Food and Fisheries.

### Market Factors

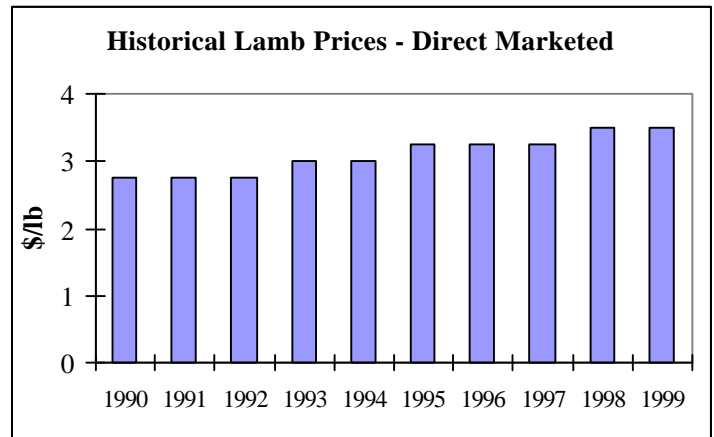
Sheep dairying is a new industry in British Columbia. Marketing alternatives include selling:

- fresh or frozen sheep's milk to processors for the production of dairy products;
- fresh milk to consumers through farmer's markets and direct farm marketing.

Producers will need to develop their own markets with processors; a limited number of processors currently exist in the province. Milk sold directly to the consumer must be pasturized.

The prices for sheep's milk vary according to the market. However, producers can expect to receive between \$1.30 to \$2.20 per litre from processors across Canada. Some processors will also pay premiums for quality and for winter supply.

The lambs of dairy sheep are sold either as breeding stock to other producers or they are slaughtered and direct marketed for their meat. There is potential for income from selling high quality, premium breeding stock. Farms involved in direct marketing lamb need to understand their markets and know their customers preferences for size, age and finish.



### Risk Factors & Strategies

Individual operators must address the following risk factors:

- Market risk—since the market for sheep's milk is still new to B.C., producers must work closely with processors to ensure processors' needs regarding consistent supply and quality are met.
- Low milk production—milk production must be maintained at an economic level. Genetics, sound nutrition, and flock health (specifically with regards to mastitis) are all factors.
- Loss of lambs at birth—attentive lambing management is needed to ensure high lamb survival. It is important to get lambs off to a healthy start since they are weaned early.
- Operator "burn out"—operators must be aware that the milking of dairy sheep is labour intensive and requires a solid commitment to a rigid work routine.

### Key Success Factors

- Having a market for the milk produced
- High quality milk production
- Lambs weaned per ewe
- Flock health – especially mastitis control
- Ewe nutrition
- Flock replacement

## Assumptions

The sample enterprise budget provided should be viewed as a first approximation only. Use the column “Your Estimate” to add, delete and adjust items to reflect your specific production situation. The figures provided are based on interviews with sheep producers and BCMAFF commodity specialists; they are estimates based on standard practices in the area and do not represent any particular farm. The following assumptions are made regarding production practices, costs and revenues:

	As a % <u>of Ewes</u>	<u>Number</u>	<u>Your Estimate</u>
Number of Ewes	-	100	.....
Number of Rams	4%	4	.....
Ewe Replacement	20%	20	.....
Ewe Death Loss	3%	3	.....
Lambs Born	220%	220	.....
Lamb Losses	6%	6	.....
Lambs Weaned	214%	214	.....
Replacement Ewe Lambs	23%	23	.....
Lambs available for sale	191%	191	.....
- Ewe Lambs	84%	84	.....
- Ram Lambs	107%	107	.....

- Spring Lambing (March); Milking from April to September
- Ewes are 80% or greater East Friesian
- Target yield of 200 litres per ewe per year (180 days @ 1.2 litres per day)
- Target price for milk \$1.50 per litre
- 75% of ewe lambs available for sale are sold as breeding stock (80% or greater East Friesian). The remaining 25% are sold for meat.
- 90% of ram lambs available for sale are sold for meat. The remaining 10% are sold as breeding stock (80% or greater East Friesian).
- Lambs sold for meat are slaughtered in the fall and direct marketed at a price of \$3.5/lbs with an average carcass weight of 45 lbs.
- Animals are rotational grazed on a 40 acres of irrigated pasture. Less acreage may be required if pasture is well-managed.
- The breeding herd is pasture fed from spring to mid-fall. Fall and winter feed program includes:
  - Hay: 5 lbs per day for 150 days;
  - Grain: 1 lb for 60 days pre- and post-breeding; 1.5 lbs for 60 days pre-lambing; and 2.5 lbs per day for 60 days while lactating.
- Lambs are on ewes for 30 days (target weight of 30 lbs for early weaning). Lambs receive on average 1.5 lbs of grain for 110 days.
- Dog food costs are for two herding dogs and two guard dogs.
- Fuel, oil and lube costs include pasture maintenance (compost and manure spreading) and general tractor use.
- Fence repair costs are estimated as 3% of replacement value per year.
- Equipment repair and maintenance costs are approximated at 5% of replacement value.
- Building repair and maintenance costs are approximated at 3% of replacement value.
- Shipping and transportation costs are estimated to cover the shipping of milk to a processor and the transportation of lambs to and from a slaughter facility.

## Sample Enterprise Budget and Worksheet Dairy Sheep—100 Ewes

Projected Income	Yield	Unit	Price	Income	Your Estimate	
Sheep Milk	21600	litres	1.5	32,400	.....	
Ewe Lambs (breeding stock)	63	head	200	12,600	.....	
Ram Lambs (breeding stock)	11	head	300	3,300	.....	
Lambs (sold for meat)	117	head	157.5	18,428	.....	
Ram Purchase	1	head	800	(800)	.....	
<b>Total Projected Income</b>				<b>65,928</b>	.....	
Projected Direct Expenses	Head	Quantity	Unit	\$/Unit	Total	Your Estimate
<u>Feed and Supplements</u>						
Hay - Ewes	100	750	lbs	0.05	3,750	.....
Hay - Rams	4	640	lbs	0.05	128	.....
Grain - Ewes	100	300	lbs	0.08	2,400	.....
Creep Feed - Lambs	214	165	lbs	0.08	2,825	.....
Milk Replacer - Lambs	20	22	lbs	1.97	867	.....
Dog Food	4	400	lbs	0.50	800	.....
Minerals & Salt					300	.....
<u>Pasture Production</u>						
Irrigation		40	acres	20	800	.....
Fuel, Oil & Lube					308	.....
Fence Repair & Maintenance					180	.....
<u>Livestock Supplies and Services</u>						
Shearing		104	head	3	312	.....
Vet & Medicine					1,400	.....
Veterinary Supplies					2,100	.....
<u>Other</u>						
Slaughter, Cut and wrap		117	head	40	4,680	.....
Utilities					2,000	.....
Cleaning supplies					1,000	.....
Equipment Repair and Maintenance					2,330	.....
Building Repair and Maintenance					2,310	.....
Shipping and Transportation					600	.....
<b>Total Projected Direct Expenses</b>					<b>29,089</b>	.....

### Calculation of Projected Net Income

To assess the net income of an enterprise, **indirect expenses** must be considered. Indirect expenses do not vary with the level of output and are typically associated with inputs used in more than one enterprise.

<b>Projected Income</b>	.....
<b>Less Projected Direct Expenses</b>	- .....
<b>= Projected Contribution Margin</b>	= .....
<b>Less Projected Indirect Expenses</b>	
Depreciation (e.g., buildings and equipment)	- .....
Interest	- .....
Other Indirect Expenses (e.g., operator labour)	- .....
<b>= Projected Net Income</b>	.....

## Sensitivity Analysis

The profitability of a dairy sheep operation will be strongly influenced by: milk production per ewe; the price of sheep's milk; and the price (direct market) of lambs sold for meat. The tables below outline the changes to total income as these factors vary.

Milk Yield (Litres/Ewe/Year)		Income*
Low	180	60,528
Average	200	63,528
<b>Target</b>	<b>216</b>	<b>65,928</b>
High	240	69,528

\*Price 1.5/litre

Fresh Milk Price (\$/litre)		Income*
Low	1.10	57,288
Average	1.30	61,608
<b>Target</b>	<b>1.50</b>	<b>65,928</b>
High	1.70	70,248

\*Yield 216 litres/ewe

Direct Market Lamb Price (\$/lb)		Income*
Low	3.00	63,295
Average	3.25	64,611
<b>Target</b>	<b>3.50</b>	<b>65,928</b>
High	3.75	67,244

\*Yield 117 head; 45 lb carcass weight

## Cash Flow Timing

	J	F	M	A	M	J	J	A	S	O	N	D
% Income				8	7	7	21	21	21	15		
% Expenses	3	10	9	13	13	9	11	11	11	4	3	3

The above information indicates the timing of monthly flow of income and direct expenses as a percentage of total income and direct expenses. A complete Projected Cash Flow should include indirect expenses, capital sales and purchases, loans and personal expenses.

## Labour Requirements

Estimated Annual Labour Requirements (Hours):

Milking (1 hour twice a day for 185 days)	370
Feeding and Grazing	365
Cleaning and repair	260
Lambing	150
Health	50
Management	150
Other	180
<b>Total Hours per 100 Ewes</b>	<b>1,525</b>
Hours/Ewe/Year	15

## Herd, Buildings and Machinery Replacement Cost

Ewes (100 at \$350/head)	35,000
Rams (2 at \$1800/head)	3,600
Milking shed	30,000
Hay shed	13,500
Lambing barn	15,000
Loafing barn	13,500
Milking Platform	5,000
Milking Equipment & Holding Tank	12,000
Tractor (used) & Field Machinery	8,000
Milker units and pulsators	5,600
Scale and Freezers	1,000
Fencing	3,600
Farm share of truck	10,000
Irrigation system	10,000
<b>Total Replacement Cost</b>	<b>165,800</b>

## Alternative Production Practices

Alternative production practices include:

- Pipeline system of milk collection—requires less labour but involves greater capital investment.
- Dry lot feeding of ewes and lambs—requires less land but increases feed costs.

## For More Information

- Canadian Dairy Sheep Association (250) 679-3841
- Basil Bactawar, P.Ag., M.Sc., Livestock Industry Development Specialist, BCMAFF Abbotsford (604) 556-3081
- Practical Sheep Dairying (1989) by Olivia Mills. Thorsons Publishing Group, England.
- Nutrition Guide for B.C. Sheep Producers, BCMAFF, 1985.
- B.C. Agricultural Fencing Handbook, BCMAFF
- Farm Business Management Information Network website at <http://www.FBMinet.bc.ca>.

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