



**COST OF PRODUCTION
STUDY RESULTS
2016**

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ACKNOWLEDGEMENT

This report is indebted to the 17 dairy goat producers who willingly participated in the Project during 2016. These people went to considerable effort and inconvenience to help the Project representatives collect and verify information. Without this excellent co-operation, this report would not be possible.

The Project representatives, whose job it was to collect, record, and verify all information, were vital to the Project. Their initiative, perseverance and positive attitude has provided the Project with high quality dairy farm data.

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ONTARIO DAIRY GOAT FARM COST OF PRODUCTION RESULTS 2016

The 2016 results for the 17 farms on the project are presented in the following tables.

Farm revenue and expenses are summarized in Table 1. Balance sheet information is summarized in Table 2. Physical characteristics are summarized in Table 3.

It should be noted that livestock and crop inventories are valued at an average of market values or prices at the beginning and end of the year for purposes of accruing the revenue value of inventory changes in the Farm Revenue and Expense Statement in Table 1. As such, the reported revenue items for inventory changes only reflect income changes associated with changes in the quantities of the related inventories held. They do not capture any change in value associated with market price changes during the year.

Revenue and expense information for the dairy enterprise is broken out in Tables 4 and 5. For purposes of these tables, the dairy enterprise is defined to consist of dairy goats, the raising of replacements and/or any related livestock borne of the dairy goat herd, and the supporting crop production associated with both.

FARM REVENUE AND EXPENSES; 2016.

Table 1

NUMBER OF FARMS	All 17
REVENUE	\$
Milk Sales	383,853
Doe & Buck Sales	36,895
Other Goat Sales	19,801
Crop Sales	19,838
Other Farm Income	33,106
Total Cash Revenue	493,493
Doe & Doeling Enterprise	6,899
Other Livestock	1,523
Feeds, Crops, Supplies	-3,173
Total Farm Revenue	498,742
EXPENSES	
Dairy Goat Enterprise	
Dairy Doe & Buck Purchases	4,909
Commercial Feed Purchases	133,426
Milk & Livestock Marketing Expense	22,257
Breeding Fees	1,174
Stable & Milkhouse Supplies	9,828
Vet. and Drugs	6,451
Other Goat Expenses ¹	5,632
Crop Enterprise	
Grains and Forages Purchases	30,310
Seed	5,759
Fertilizer	8,324
Sprays	1,992
Custom Work	22,462
Gas & Diesel Fuel	7,294
Machinery Repairs	14,407
Other Crop Expenses ²	1,456
Other Farm Expenses	
Direct Expenses Non-Dairy Livestock ³	12,098
Direct Expenses Other Crops	8,354
Wages & Salaries	32,258
Land Rent	3,898
Interest Paid	30,751
Real Estate Taxes	6,839
Hydro & Telephone	16,203
Insurance	7,084
Equipment & Building Repairs	17,446
Other General Cash Expenses ⁴	8,935
Total Cash Expenses	419,601
Building Depreciation	24,093
Machinery Depreciation	20,291
Total Farm Expenses	463,985
Net Farm Income	34,757

¹ Other Dairy Expenses include registration/testing fees, building rent, straw & bedding, & livestock insurance for the dairy herd.

² Other Crop Expenses include crop insurance, seed cleaning, twine, propane for corn drying & misc. crop expenses.

³ Since rebates are recorded as negative expenses, the direct expense for non-dairy livestock enterprises may be negative for farms which have no such livestock.

⁴ Other General Cash Expenses include car expenses and miscellaneous farm expenses.

Table 2

**FARM BALANCE SHEET;
DECEMBER 31, 2016.**

NUMBER OF FARMS	All 17
A. WITH ASSETS AT MARKET VALUE	\$
Machinery and Equipment	282,638
Personal Equipment	473
Land and Farm Buildings	2,306,711
Farm House & Personal Structures	133,124
Dairy Does	137,141
Dairy Doelings	42,177
Other Livestock	13,722
Feed, Crops, Supplies, Inventory	43,931
Total Assets	<u>2,959,917</u>
B. WITH FIXED ASSETS AT COST LESS DEPRECIATION¹	
Machinery and Equipment	216,052
Personal Equipment	1,532
Land and Farm Buildings	999,196
Farm House & Personal Structures	42,718
Dairy Does	137,141
Dairy Doelings	42,177
Other Livestock	13,722
Feed, Crops, Supplies, Inventory	43,931
Total Assets	<u>1,496,469</u>
C. LIABILITIES	
Operating & Short-Term Trade Credit	32,436
Intermediate & Long Term Loans	234,882
F.C.C. Loans	676,099
Total Liabilities	<u>943,417</u>
D. OWNER'S EQUITY	
(A) Assets At Market Value	2,016,500
(B) Fixed Assets at Cost Less Depreciation	553,052

Depreciation was not subtracted from the cost of the farm house, land, or personal equipment.

Table 3 **BASIC FARM PRODUCTION PARAMETERS; 2016.**

NUMBER OF FARMS	All 17
Dairy Does & Doelings (hd)	407.0
Milk Sold/Farm (litres) ¹	368,459
Milk Sold/Doe (litres) ¹	916.6
Butterfat Test (kg/hl)	3.38
Person-Equivalents of Labour	1.89
Workable Land Farmed (hectares) ²	52
Average Age of Principal Operator	43.4

¹ *Milk is expressed in terms of milk actually sold.*

² *One hectare = 2.47 acres.*

Table 4 DAIRY ENTERPRISE REVENUE AND EXPENSES; 2016.
- PER DOE -

NUMBER OF FARMS	All 17
REVENUE	\$
Milk Sales	952.89
Quality Penalties & Levies	-2.43
Does & Bucks Sold	105.57
Other Dairy Livestock Sold	50.39
Dairy Livestock Inventory Change	10.66
Net Revenue	1,117.08
DIRECT DAIRY EXPENSE	
Dairy Ration & Protein Supplements	278.67
Salt & Minerals	10.46
Milk Replacer & Doeling Ration	30.67
Other Purchased Feeds	-0.11
Vet & Drugs	18.38
A.I. Fees (Including semen & embryos)	3.65
Stable & Milk House Supplies	28.03
Milk Transport & Related Marketing Fees	55.43
Goat Livestock Marketing	2.31
Other Direct Goat Enterprise Expense ¹	16.65
Total Direct Expense	444.14
DAIRY SHARE OF CROP EXPENSES	
Bulk Grain & Forage Purchases	68.28
Seed	8.23
Fertilizers	12.10
Herbicides & Pesticides	3.05
Custom Work	32.68
Fuel & Lubricants	11.68
Field Machinery Repairs	19.64
Land Rent	4.36
Other Crop Expense ²	4.80
Total Crop Expense	164.82
Returns Over Direct & Crop Expenses	508.12
ALLOCATED INDIRECT & OVERHEAD EXPENSES	
Barn Equipment & Building Repairs	41.21
Hired Labour Expenses	53.01
Interest Expense	60.49
Insurance	16.78
Hydro & Telephone	34.93
Taxes	12.54
Other Overhead Expenses ³	10.10
Total Indirect & Overhead Expenses	229.06
Returns Over Expenses	279.06
DAIRY LIVESTOCK PURCHASES	
Does & Bucks Purchased	9.90
Other Dairy Livestock Purchased	0.32
Total Dairy Livestock Purchased	10.22
Net Returns	268.84
TOTAL LABOUR REQUIRED (Hrs)⁴	16.32

¹ Other Dairy Expense includes bedding materials, feed processing expense, livestock testing and registration, livestock insurance, livestock promotion expense and building rent.

² Other Crop Expense includes twine, seed cleaning, crop insurance and machine rentals.

³ Other Overhead Expense includes hardware, car expenses and miscellaneous expense.

⁴ Labour estimated based on the recorded hours from daily time sheets (see section B.4).

Table 5 DAIRY ENTERPRISE REVENUE AND EXPENSES; 2016.
- PER HL OF MILK SOLD -

NUMBER OF FARMS	All 17
REVENUE	\$
Milk Sales	104.19
Quality Penalties & Levies	-0.21
Does & Bucks Sold	10.41
Other Goats Sold	5.35
Goat Livestock Inventory Change	0.75
Net Revenue	120.49
DIRECT DAIRY EXPENSE	
Dairy Ration & Protein Supplements	29.89
Salt & Minerals	1.22
Milk Replacer & Doeling Ration	3.36
Other Purchased Feeds	0.01
Vet & Drugs	1.95
A.I. Fees (Including semen & embryos)	0.36
Stable & Milk House Supplies	3.07
Milk Transport & Related Marketing Fees	6.24
Goat Livestock Marketing	0.26
Other Direct Goat Enterprise Expense ¹	1.84
Total Direct Expense	48.20
DAIRY SHARE OF CROP EXPENSES	
Bulk Grain & Forage Purchases	7.45
Seed	0.98
Fertilizers	1.52
Herbicides & Pesticides	0.40
Custom Work	3.56
Fuel & Lubricants	1.29
Field Machinery Repairs	2.17
Land Rent	0.53
Other Crop Expense ²	0.59
Total Crop Expense	18.49
Returns Over Direct & Crop Expenses	53.80
ALLOCATED INDIRECT & OVERHEAD EXPENSES	
Barn Equipment & Building Repairs	4.38
Hired Labour Expenses	5.17
Interest Expense	7.05
Insurance	1.87
Hydro & Telephone	3.94
Taxes	1.54
Other Overhead Expenses ³	1.10
Total Indirect & Overhead Expenses	25.05
Returns Over Expenses	28.75
DAIRY LIVESTOCK PURCHASES	
Does & Bucks Purchased	1.06
Other Dairy Livestock Purchased	0.03
Total Dairy Livestock Purchased	1.09
Net Returns	27.66
TOTAL LABOUR REQUIRED (Hrs)⁴	1.86

¹ Other Dairy Expense includes bedding materials, feed processing, expense, livestock testing and registration, livestock insurance, livestock promotion expense and building rent.

² Other Crop Expense includes twine, seed cleaning, crop insurance and machine rentals.

³ Other Overhead Expense includes hardware, car expenses and miscellaneous expense.

⁴ Labour estimated based on the recorded hours from daily time sheets (see section B.4)

APPENDIX A

SAMPLE DESIGN AND CHARACTERISTICS

A.1 Project Methodology

To provide uniformity of data collection, Project representatives are assigned to do on-farm recording of financial transactions. Farms are visited, on average, two to three times a year, to record financial transactions and collect relevant production information. Various techniques are used to solicit data due to the many differences in farm types and the level of organization.

A.2 Sample Selection

The sample was selected from the files of Ontario Goat.


The 2016 sample is composed of two sub-samples of dairy goat farms. The first sub-sample consists of 10 farms which were recruited in late 2013 and enrolled in the Project for 2014. The second sub-sample consists of 5 farms recruited in late 2014 for enrolment in 2015. The third sub-sample consists of 2 farms recruited in late 2015 for enrolment in 2016.

A.3 Enrolment Procedure

Farms selected for enrolment were initially contacted and recruited by Ontario Goat. A serious attempt was made to handle all contacts in the same manner and to give essentially the same message in all cases. In discussions with the farmers, and in seeking their co-operation, it was emphasized that the confidentiality of individual records would be respected, that there were benefits to the industry and to the individual and that we were seeking their co-operation. It was also stressed that the data collection visits would occur at the convenience of the producer.

B.4 Labour Data Collection

Labour data for the project is collected using daily time sheets. Producers are asked to complete the time sheets for their first year on the project. Sheets are completed for all individuals contributing labour to the farm. Completion of the time sheets in the second and subsequent years on the project is encouraged, but not mandatory, unless changes have occurred which would significantly alter the labour requirements for the operation.

		FARM #		YEAR		MONTH		ROW		STAT		YEAR BORN		EFFICIENCY		EMPLOYEE NAME																			
Name:														100																					
Year Born:																																			
Month:		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	TOTAL HOURS		
WORK IN THE BARN	Dairy Milking Does and Bucks • Herd management, milking, feeding, milking equipment maintenance, health care, etc.																																		
	Dairy Non-Milking Does/Doings • Feeding, health care, management, etc.																																		
	Other Livestock: Cows, Beef, Swine, Etc. • Feeding, health care, management, etc. <i>Indicate type of livestock.</i>																																		
	Common Livestock Work • Main dairy barn, stable maintenance/cleaning, preparing rations, silo unloader, building repair																																		
MAINTENANCE & REPAIRS	Field Machinery • Maintenance and repairing of field machinery																																		
	Other Buildings • Maintenance and repairing of other farm buildings other than main dairy barn																																		
	Barnyard and Fences • Maintenance and repairing of barnyard and farm fences.																																		
	Land • Stone picking, farm lanes, snowremoval, ponds.																																		
FIELD WORK	Administration and Management • Book keeping, meetings, errands, professional reading, agricultural courses, banking.																																		
	Hay and Haylage • Plowing, tillage, fertilizing, spraying, planting, spreading manure, harvesting, etc.																																		
	Small Grains, Winter Wheat, Straw • Plowing, tillage, fertilizing, spraying, planting, spreading manure, harvesting, etc.																																		
	Corn Grain and Corn Silage • Plowing, tillage, fertilizing, spraying, planting, spreading manure, harvesting, etc.																																		
	Soybeans, Other Crops, Maple Syrup • Plowing, tillage, fertilizing, spraying, spreading manure, planting, harvesting, etc.																																		
OTHER	Construction, Land Clearing • Building construction, tree removal, etc.																																		
	Custom Hire For Others • If any related work performed for others but not part of your own farming operation.																																		

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APPENDIX B

ACCOUNTING PROCEDURES

B.1 Account Structure

A computerized accounting program is used as the data collection vehicle for the Project. The computer program permits separating information into enterprises or profit centres and accounts or cost centres. Five basic enterprises are being registered:

- (i) general farm
- (ii) dairy goat herd
- (iii) small grain
- (iv) corn/corn silage
- (v) hay/haylage/pasture

The general farm account includes any other crop or type of livestock. Specialized enterprises are not registered. One overhead cost account is registered.

B.2 On-Farm Recording

Project representatives work within very specific guidelines in order to get as much uniformity as possible. As a general rule, the recording methods required for filing tax returns are used. All income and expense items are recorded on an accrual basis. A complete list of items recorded and the recording procedure can be obtained from Ontario Goat.

B.3 Valuation of Fixed Assets

All fixed assets (land, buildings, houses, machinery, and intangibles) are recorded at both original cost and estimated current market value.

Depreciation is recorded using a diminishing balance rate: 5% for buildings and structures, 10% for farm machinery and 15% motorized equipment and machinery. The assumption is made that the equipment will reach its salvage value when it is worth 20 per cent of its original cost.

B.4 Valuation of Livestock

Dairy livestock is valued according to three different quality categories. Beginning and ending inventory values, used for 2016, are as indicated in Table B.1.

Table B.1 **LIVESTOCK INVENTORY VALUES; 2016.**

Description	Beginning (\$)	Ending (\$)
Dairy Milking Does	325	325
Dairy Bucks	400	400
Non-Milking Doelings	200	200
Dairy Buck Kids	15	15

Note: Information in the table is provided by Ontario Goat.
Beef, swine and poultry were valued at current market value.

B.5 Valuation of Crops

Grain values are based on estimates obtained from the Agricorp 2016 AgriStability Fair Market Values list. Forage values are based on the equivalent feed value of grain corn. Values for 2016 are as indicated in Table B.2.

Table B.2 CROP INVENTORY AND TRANSFER VALUES; 2016.

- Per Tonne Basis -

Values used for	Inventory Valuation		Transfer Value
	Beginning	Ending	
	\$	\$	\$
Home-grown Feed:			
Wheat (Feed)	219.00	172.00	195.50
Barley	165.00	183.00	174.00
Oats	246.00	213.00	229.50
Mixed Grain	156.00	183.00	174.00
Grain Corn	181.00	163.00	159.50
Hay	155.00	171.00	163.00
Corn Silage	36.00	38.00	37.00
Haylage @ 45% DM	80.00	90.00	85.00
Straw	159.00	135.00	147.00
Oatlage/Barlage	45.00	50.00	47.50

B.6 Allocation of Expenses

Direct expense items, such as seed and fertilizer, pose no problem with respect to allocation as their use is generally confined to a single farm enterprise.

Indirect and overhead expenses are more difficult to allocate as they are normally used in more than one enterprise. These expenses are allocated on the basis of the following guidelines.

(a) Building Depreciation

Allocated to livestock enterprises according to the building space used. If the buildings used for certain types of enterprises are obviously depreciating at a higher rate than others, the allocation is accordingly adjusted.

(b) Machinery Depreciation

Allocated according to use as defined on the basis of the classification of individual machinery and equipment items.

(c) Heating Fuels

Normally all personal use unless auxiliary heating is required for certain livestock enterprises (e.g. broilers).

(d) Barn Equipment Repair

Normally about 100 per cent to the dairy herd (milking equipment, milk tank, stable cleaners, etc. are used mainly for the dairy enterprise). If other livestock enterprises are on the farm, costs are allocated according to use.

(e) Building Repair (*building repair, fence repair, hardware*)

Normally about 100 per cent dairy herd.

(f) Gas, Diesel (*gas, diesel, oil, grease*)

Allocated to crops on the basis of hectares or use. Gasoline for personal use is being recorded directly, and not allocated.

(g) Field Machinery (*equipment repair*)

Allocated according to hectares or use.

(h) Machinery Miscellaneous Expenses (*hardware, tools, machine insurance, licence, rent*)

Allocated according to hectares or use.

(i) House Repairs and Maintenance

Almost always 100 per cent personal.

(j) Labour (*wages, EI, CPP, WSIB, EHT*)

According to use.

(k) Interest (*interest, life insurance premium*)

Allocation of short term interest is based on the percentage that the direct expense for each enterprise represents of the total direct expense for the farm. Intermediate and long term interest including life insurance premium is allocated 50 per cent to the livestock enterprises based on the percentage overhead allocated, and 50 per cent to crops according to hectares.

(l) Farm Insurance (*fire, liability, accident*)

Allocated to livestock.

(m) Car (*car insurance, maintenance*)

Normally 70 per cent personal, 15 per cent livestock, 15 per cent crops.

(n) Hydro

Normally, if highly mechanized, 30 per cent personal, 70 per cent livestock. If low mechanization, 50 per cent personal, 50 per cent livestock.

(o) Water

Allocated to livestock.

(p) Telephone

Normally 50 per cent personal, 25 per cent livestock, 25 per cent crops.

(q) Real Estate Taxes

Approximately half land, half buildings, allocated 10 per cent to personal use for the house, pro-rated 40 per cent to livestock according to animal units, 50 per cent to crops according to hectares of each crop.

(r) Other Overhead Expenses (*Fees, accounting, legal, office supplies, advertising, etc.*)

Fifty per cent livestock, 50 per cent crops.

C.7 Allocation of Home-grown Feed

All home-grown feed is allocated to the various livestock enterprises based on information supplied by the farmer. In order to check for accuracy, an edit is carried out at the end of the year. This involves checking the estimated feed consumption

(Beginning Inventory + Production + Purchases - Sales - Ending Inventory)

for each farm to make sure that it is in line with accepted industry benchmarks for feed consumption. If feed consumption is not close to the benchmarks, the crop yields and other related information are double-checked to clarify the discrepancy.