



PLANNING FOR PROFIT



BRITISH COLUMBIA Ministry of Agriculture,
Food and Fisheries

Spring 2002
February 2002

5000 Free Range, Organic Layers—Lower Mainland

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.

This 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://fbminet.ca/bc>.

Key Factors Affecting Profit

The quality of pullets reared is fundamental to profit during the laying cycle. High quality feed with an appropriate feeding program throughout the cycle are required to maximize production. Nutrient requirements vary with the age of the bird and are directly related to the rate of production, body weight, ambient temperature, disease, stress, age and feather cover. Free Range are birds which are provided housing with access to the outdoors covered by vegetation. Organic free range birds should be certified by a recognized certification organization such as COABC.

Key Success Factors

Production	285 eggs or 23.75 dozen layer/cycle
Quality	77% Grade A Large, X Large, Jumbo
Feed Conversion	1.77 kg/dozen

(Feed conversion equals feed consumption in kilograms per layer divided by number dozen of eggs produced per layer).

Risk Factors & Strategies

Marketing: The B.C. Egg Producers controls all egg production in B.C. All producers must have sufficient quota, permit or a flock size exemption for all laying hens housed in their facilities. Producers can grade and market their own eggs or sell them directly to the local grading station. Producers can produce and sell eggs direct to a “consumer” at the producer’s farm or place of residence. All eggs sold in the hotel, restaurant, institutional and retail trade must be graded. These grades can only be applied in a federally registered grading station.

Producers should research market access, distribution options, niche market potential, prices and demand for organics eggs prior to entering the business. Market information is limited, time is required for development.

Organic: Issues of compliance, monitoring and benchmarks for organic egg production should also be well researched. Be sure to locate and contract feed with organic mills that provide the feed standard required for your operation. Due to competing interests for organic grains and the limited volume of inputs and limited number of organic feed mills the price of organic feeds can be highly volatile and may increase significantly at any time. Large increases in feed price can significantly reduce gross margins in the organic layer industry.

Production: Risk factors include quality of pullets & feed; disease; sanitation; & egg handling. A high quality feed & sanitation program will reduce risks.

Assumptions—5000 Free Range, Organic Layers—Lower Mainland

- The sample budget reflects standard practices in the Lower Mainland and does not represent any particular farm. The budget is based on interviews with producers, and BCMAFF specialists. Assumptions include:
 - Flock size is 5000 birds.
 - Age to sexual maturity (pullet to layer size): Pullets are raised for 19 weeks and transferred to laying barn at 20 weeks.
 - Mortality : 2% optimal target. Mortality can be as high as 5-10% over the production cycle depending on the infrastructure of the operation and the management. (Note that if mortality is high, egg income shown in this budget will be markedly lower).
 - Layer Production Cycle: 52 weeks or 365 days.
 - Feed Conversion: 1.77 kg per dozen eggs
 - Total Feed Consumption: 41.975 kg per layer per year.
 - Feed Cost: \$536.12 per tonne.
 - Feed Cost/layer/cycle: \$22.50 per layer/cycle.
 - Egg Production: 23.75 dozen (or 285 eggs) per layer in one production cycle of 365 days.
 - Egg Grade & Percentage: Jumbo 3.8%, X large 23%, Large 50.2%, Medium 16% , Small 2% , Pee wee 0.3%, B 0.2%, C 2.5% , Broken and Rejects 2%
 - Levies include: British Columbia Egg Marketing Board levy (12.8 cents/layer/week) and TRLQ levy (10 cents/layer/week).
 - COABC-BCARA Annual Certification Fee: 29 cents/bird

Sensitivity Analysis

The profitability of the operation will be strongly influenced by prices and marketable yield. The table below illustrates the changes to contribution margin as prices and yield vary in the full production year.

	Feed Price (\$/tonne)	Contribution margin per layer*
Low	\$475.00	\$10.69
Average	\$530.00	\$8.39
Target	\$536.00	\$8.13
High	\$650.00	\$3.35

*assuming feed conversion (kg/dozen) of 1.77

	Yield (dozen eggs/layer)	Contribution margin per layer*
Low	22	\$3.60
Average	23	\$6.18
Target	23.75	\$8.13
High	25	\$11.37

*assuming the following % of production & price per grade

Jumbo	3.80%	\$3.03
X Large	23.00%	\$3.05
Large	50.20%	\$3.03
Medium	16.00%	\$1.37
Small	2.00%	\$1.01
Pee wee	0.30%	\$0.25
B	0.20%	\$1.31
C	2.50%	\$0.33
Rejects & Broken	2.00%	\$0.00

Cash Flow Timing

The table below indicates the monthly flow of income and direct expenses. A complete Projected Cash Flow should include indirect expenses, capital sales and purchases, loans and personal expenses.

	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
% Income	8	8	8	8	8	8	8	8	8	8	8	8
% Expense	8	8	8	8	8	8	8	8	8	8	8	8

Note: Income and expense percentages do not add to 100% due to rounding.

Sample Enterprise Budget and Worksheet Free Range, Organic Layers—Lower Mainland (One cycle of 365 days per layer)

The sample enterprise budget provided should be viewed as a first approximation only. Use the column "Your Farm," to add, delete and adjust items to reflect your specific production situation.

Income	Yield (dozen eggs)	Price	Income per layer	Income/ dozen eggs	Your farm
Jumbo	0.90	\$3.03	\$2.73	\$0.12	_____
X Large	5.46	\$3.05	16.66	0.70	_____
Large	11.92	\$3.03	36.13	1.52	_____
Medium	3.80	\$1.37	5.21	0.22	_____
Smalll	0.48	\$1.01	0.48	0.02	_____
Pee Wee	0.07	\$0.25	0.02	0.00	_____
B	0.05	\$1.31	0.06	0.00	_____
C	0.59	\$0.33	0.20	0.01	_____
Broken	0.48	\$0.00	0.00	0.00	_____
Total	23.75		\$61.48	\$2.59	_____
Direct Expenses					
Layer Feed	\$536/tonne	0.041975 tonne/ layer	\$22.50	\$0.95	_____
Pullets *			7.00	0.29	_____
Levies	22.8	52 weeks	11.86	0.50	_____
	cents/week				
Certification Fee	29 cents/bird		0.29	0.01	_____
Utilities			4.00	0.17	_____
Vet & Medicine			0.14	0.01	_____
Catching & Moving			0.04	0.00	_____
Barn Cleaning & Sawdust			0.40	0.02	_____
Bldgs & Equip Repair & Maint			0.57	0.02	_____
Labour (2 skill levels)	0.22 hours/ bird	\$20/hour	4.42	0.19	_____
	0.11 hours/ bird	\$10/hour	1.10	0.05	_____
Spent Hen Disposal			0.20	0.01	_____
Free Range Maintenance			0.83	0.04	_____
Total Direct Expenses			<u>\$53.35</u>	<u>\$2.25</u>	_____
Contribution Margin	(gross income less direct expense)		<u>\$8.13</u>	<u>\$0.34</u>	_____

*Cost to raise pullets to 19 weeks to layer size includes vet/meds, labour, sawdust, prelay, pullet grower, & chick.

Calculation of Projected Net Income

To assess net income, **indirect expenses** must be subtracted from income. Indirect expenses do not vary with the level of output and are typically associated with inputs used in more than one enterprise and must be allocated appropriately (prorated) between uses.

Projected Income
Less Projected Direct Expenses	-
= Projected Contribution Margin	=
Less Projected Indirect Expenses	
Depreciation (e.g., buildings and equipment)	-
Interest	-
Other Indirect Expenses	-
= Projected Net Income	=

5000 Free Range, Organic Layers—Lower Mainland

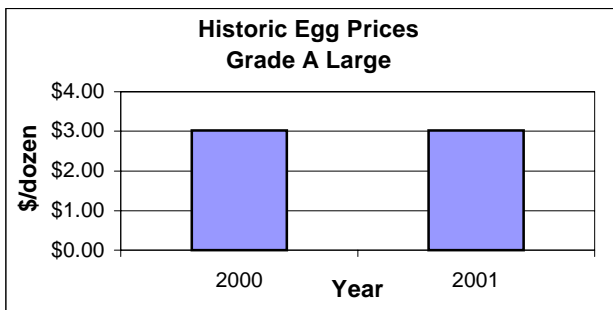
Building, Equipment & Quota

Replacement Costs

Buildings	\$150,000
Equipment (flooring, nest, ventilation)	70,000
Misc (generator)	<u>22,000</u>
Total	\$242,000

Quota (\$85.00/layer)* \$425,000

Note: A producer will need to either enroll in the TRLQ program or purchase quota prior to production. Under the TRLQ program producers pay a levy of \$0.10 per layer/per week (see budget & assumptions). If a producer is not on the TRLQ program or does not have a flock size exemption (less than 99 birds) they are required to purchase quota before production starts (In this example 5000 layers x \$85/layer= \$425,000).



Rules of Thumb

Labour Estimate	32 Hours/week
Direct Expense as % of Income (includes labour as a part of direct expense)	87%

Labour Requirements

	Hours/bird	Wage rate
1 person	0.22	\$20/hr
1 person	0.11	\$10/hr

For More Information

References

- BCMAFF web site.
<http://www.agf.gov.bc.ca/>
- BCMAFF Infobasket
<http://infobasket.gov.bc.ca>.
- Specialty Egg Certification Regulation, B.C. Egg Marketing Board
- B.C. Organic Production Operation Policies and Farm Management, Version 3, Certified Organic Association of British Columbia
- British Columbia Certified Organic Guidebook, Certified Organic Associations of B.C.
- Missouri Alternatives Center. Agricultural Alternatives: Small-Scale Egg Production (Organic and Nonorganic)
<http://pubs.cas.psu.edu/FreePubs/pdfs/ua335.pdf>
- Virginia Cooperative Extension: Layer Chicken Resources
<http://www.apsc.vt.edu/faculty/clauer/resource/pspec/LayChick.html>

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