PLANNING FOR PROFIT

BRITISH COLUMBIA Ministry of Agriculture, Food and Fisheries

Summer 2001

Honey Production Start up—250 hives
British Columbia

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 or obtained from your local office of the B.C. Ministry of Agriculture, Food and Fisheries.

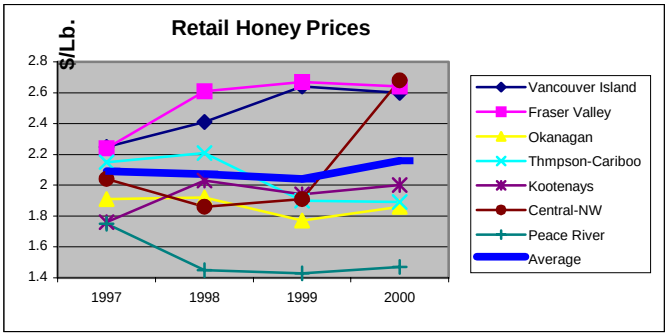
Market Factors

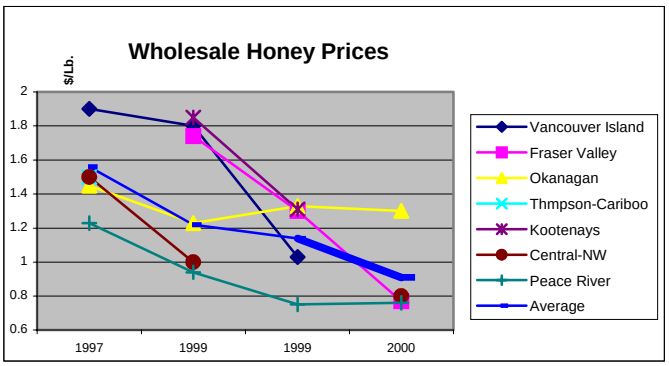
Industry Structure:

- BC is a net importer of honey. There may be potential to increase production in BC to sell to to local and niche markets.
- The bee industry is involved in honey production , with a higher number of honey producers on Vancouver Island and in the Interior, and pollination. Crop pollination contracts, especially in the Fraser Valley, are important to the horticulture industry and can offer strong income potential.

Marketing :

- Honey price, packaging, flavour, colour, and classification (e.g., bulk versus container) are important issues in the marketing and profitablility of honey production. Time should be spent on researching these issues and determining your best market channels, packers or niche potential.
- The Canadian Food Inspection Agency (CFIA) monitors the safety & quality of honey production and processing as well as the size, grade, label and container inspection. Review guidelines frequently.





Source: BCMAFF Statistics

Risk Factors & Strategies

Production

Challenges include:

- Losses from diseases and pests relative to the input costs required to control them
- Maintaining honey production potential (e.g., forage availability)
- Harm to hives from livestock, wildlife, and vandalism
- Exposure to pesticides, flooding, and winds
- Climate and topography may limit profit potential.

Experience in commercial beekeeping is essential to encourage consistent honey production from year to year.

Assumptions—Honey Production Start up—250 hives British Columbia

- Start up bee operation: 250 hives uwith income from honey production only.

Production

- Full production is generally not achieved until year 4
- Start up production approximates: Year One 50%, Year Two 75%, and Year Three 90% and is highly dependant upon management & production skills of the producer.
- Budget assumes an average yield of 100 lbs per hive. However, honey production yield varies among province. Assess the potential for each specific geographic area.
- Queen price at $17. Prices may vary based on area of province.

Marketing & Price:

- Honey is sold via retail—container (80%), and retail—bulk (20%).
- Prices are $2.64 for retail—container and 0.77 for retail—bulk. Note prices may vary across province.

Labour

- Operator labour is included in the budget as there is an opportunity cost to this labour even if it is a family run operation. Labour rate of 13,5 includes incl WCB, CPP, UIC.
- Efficiencies in labour exist. Increased experience may decrease labour required.
- Labour includes hours for locating and establishing good locations, moving hives, marketing, and bee & hive care.

Equipment & Buildings:

- Includes extracting & storage, sales, hive, truck and honey house for 250 hive operation.

Sensitivity Analysis

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

Yield	Contribution Margin
85	
90	To be filled in after budget finalized
100	
105	

Price	Contribution margin
2	
2.25	
2.64	
3	

Cash Flow Timing

The table below indicates the monthly flow of income and direct expenses. It assumed that the fruit once delivered to the packinghouse is put into storage and packed and shipped according to market demands and fruit quality. A complete Projected Cash Flow should include indirect expenses, capital sales and purchases, loans and personal expenses.

Months	**J**	**F**	**M**	**A**	**M**	**J**	**J**	**A**	**S**	**O**	**N**	**D**
% Inc	5	5	5	5	10	15	15	10	10	10	5	5
% Exp		5	5	15	20	20	10	10	5	5	5	

Sample Enterprise Budget and Worksheet
Honey Production Start up per bee hive—British Columbia

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.

					Your Farm
Income	**Yield (lb)**	**Price ($/lb)**	**Unit**	**Income**	
Honey					
-Retail, Container[1]	80	2.64	lb	211.20	
-Retail, Bulk	20	0.77	lb	15.40	
Wax	1.5	4.32	lb	6.48	
Total Income				**$233.08**	
Direct Expenses	**Quantity**	**Price**	**Unit**	**Expense**	
Feed					
Sugar	13.6	0.71	kg	9.66	
Feed & Medication					
Protein	0.9	5.18	kg	4.66	
Fumagillin	0.1727	14.1	g	2.44	
Oxytetracycline	15	0.01	g	0.15	
Supplies & Services					
Queens	0.6	17	each	10.2	
Formic Acid	0.1	7.15	litre	0.72	
Mite Wipes	3	0.1	each	0.30	
Apistan	2	2.2	each	4.40	
Labour[3]	1.74	13.5	hour	23.49	
Fuel,Oil & Lube				5.06	
Machinery R & M				7.87	
Building R & M				3.20	
Hive R & M				5.24	
Honey House Power				3.40	
Bee Yard Rent				2.75	
Marketing					
Container & Label[3]	90	0.629	g[4]	56.61	
Total Direct Expenses				**$140.14**	
Contribution Margin				**$92.94**	

[1]Average price per lb. sold including container cost ; [2]Hired labour hours allocated even if this is the producers hours.; [3]An average cost over all retail size plastic containers ; [4]cost in grams of honey contained

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 (e.g., operator labour) - .....
= Projected Net Income .....

Key Success Factors

- Locating and establishing proper location for hive placement
- Accurate assessment of crop potential
- Strong disease and pest control
- Adequate protection from wildlife
- Beekeeping experience in management, marketing & production areas
- Establish markets for honey product
- Diversification to niche and pollination markets to increase profit potential

Building and Machinery Replacement Cost Total Farm Size - 250 Hives

Buildings	$ 43,000.00
Hives (Used, 5 boxes with bees)	63,750.00
Extracting & Storage Equipment	17,549.50
Sales Equipment	1,298.00
Vehicles	15,000.00
Total	**$140,597.50**

Extracting & Storage Equipment

	Quantity	Price	Type	Expense
[1] Extractors	3	1725	20-Frame	5,175.00
Wax Press	1	6500		6,500.00
Honey Sump	1	615	Large	615.00
[2] Storage Tanks	2	650	1000 Lbs.	1,300.00
Storage Drums	40	70	45 gallon	2,800.00
Remelting Cabinet	1	250	self built	250.00
[3] Pipe: food grade	25	5.1		127.50
Honey Pump & Motor	1	635	1 1/4"	635.00
Capping Knife	1	130	electric	130.00
Capping Scratcher	1	17		17.00
Total				**17,549.50**

[1] Prices from Bee-Maid Suppliers (Alberta), does not include taxes or shipping, shipping costs approx. $550/100lbs. [2] Stainless Steel [3] Purchased by the foot

Sales Equipment

	Quantity	Price	Type	Expense
Scale	1	50		50.00
Carts	1	198	bee box mover	198.00
	1	225	drum mover	225.00
Pallets	25	5	used	125.00
Table Saw	1	200		200.00
[1] Misc. Small Tools				500.00
Total				**1,298.00**

[1] Includes hand saw,hammer, screwdrivers, hand stapler tape measure, electric drill, drill bits

Alternative Production & Marketing

- Pollination should be examined as an additional source of income. Strong opportunities exist due to the forage & horticulture industry (e.g., berry pollination required). Profit potential is specific to each geographic area.
- Diversification to other honey products including: organic honey, floral or flavoured honey, & wax products. Note that diversification into various honey products may require intense marketing and promotion cost & efforts (e.g., label, design) to access niche and local markets. Research market potential in all cases.
- Sales of product through various distributions channels including direct farm market, road side stands, speciality stores and association/ group sales.
- Others include honey bee stock production and pollen and comb honey.

For More Information

- **BCMAFF Farm Practices: Apiculture - Honeybees and Pollinators** http://www.agf.gov.bc.ca/resmgmt/fppa/refguide/commodty/apicult.htm
- **BCMAFF Infobasket** http://infobasket.gov.bc.ca
- **BC Bee Act** http://www.agf.gov.bc.ca/ministry/legsum/beea.stm
- **Farm Canada Agricultural Products Act: Honey Regulations**: http://laws.justice.gc.ca/en/C-0.4/C.R.C.-c.287/21996.html
- **Evaluating Honey Bee Colonies for Pollination Oregon State University** http://wwwagcomm.ads.orst.edu/AgComWebFile/EdMat/PNW245.pdf
- **Beekeeping Resources, University of Florida** http://edis.ifas.ufl.edu/scripts/htmlgen.exe?MENU_AA:BEEKEEPING
- **Penn State, Hives for Hire** http://pubs.cas.psu.edu/FreePubs/pdfs/uf012.pdf

Contacts/Contributors
The following people and organizations contributed to the preparation of this factsheet:

- Paul van Westendorp, Provincial Apiculturist, BCMAFF, Abbotsford, BC
- John Gates, BCMAFF, Vernon, BC
- Alana Wilson, Contractor, Vancouver, BC.