



PLANNING FOR PROFIT



BRITISH
COLUMBIA

Ministry of Agriculture,
Food and Fisheries

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Culinary Herbs– Fraser Valley 1000 metre square

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

- Fresh culinary herbs may be sold in pots, bunches, or prepackaged in plastic containers or film bags.
- The most popular herbs are basil, dill, chives, flat leaf parsley, peppermint, spearmint, rosemary, sage, thyme, cilantro, marjoram, oregano, and French tarragon.
- Demand for different herb varieties changes based on seasonal and annual demand.
- The market for packaged culinary herbs is dominated by imports and varies with supply and demand as well as weather conditions in areas of supply.
- California imports dominated the British Columbia winter market when prices are high.
- The culinary herb market includes small to large manufacturers, processors, restaurants, grocery stores, wholesalers and farmers markets.
- Marketing efforts in terms of establishing and maintaining sales connections are a large time and cost factor and important to success.

Herb Prices range from wholesale \$0.40 to retail \$1.60/bunch 1/2 ounce size.

- Price is determined by herb quality (e.g, appearance, aroma, texture), reputation of grower and source for the sale. Producers should investigate local restaurants, hotels, high-end grocery stores and farmers' markets for higher prices.
- Prices vary with markets, season and herb variety. Demand for herbs has increased approximately 10-20% in the last decade.

Risk Factors & Strategies

- There is limited information on herb production and marketing available, which requires producers to experiment with crops, varieties and management techniques.
- High quality seed with good germination is important for production efficiency.
- Lack of sunshine or poor harvest conditions will lower quality and reduce herb flavour.
- High labour efforts and capital investment is required.
- Production timing can be critical to success. Staggered plantings are recommended.
- Growing several crops (6+) may protect against saturated markets, crop failure, and increase farm cash flow.
- Culinary herb sales require excellent marketing skills as compared to other horticultural crops due to lack of organized markets.

Assumptions: Culinary Herb Production -1,000 m2 of Greenhouse

The sample budget is based on interviews with producers and BCMAF commodity specialists. Cost and revenue estimates are based on standard practices in the area and do not represent any particular farm.

The following assumptions were made in calculating the sample budget:

- Budget based on greenhouse production of basil, dill, chives and parsley
- Herbs grown in 17" x 17" flats (2.01 ft²) with 22 flats per m²
- Target yield: 6 ½ oz bunches/flat for 2 cycles or 225 bunches / m²
- 84% production efficiency
- 2 staggered plantings - 85 day growth cycles (October to May)
- Herbs grown in purchased prepared planting media using flats.
- 22,300 flats required per 1000 m2 with flats being used for two plantings
- Fertilizer (18-18-18) applied as needed
- Pest control: Integrated pest management plus other controls. Varies with management goals.
- Winter production. Heating costs may be lower in summer months.
- Labour costs are calculated at \$12.00/hour including UIC, CPP, and WCB.
- Seeds costs may vary based on type of variety mix and quality.

Sensitivity Analysis

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

	Yield (bunches of 1/2 ounce packages)	Contribution Margin * at target price of .70 bunch
low	175,000	(10,071)
average	200,000	5,555
Target	225,000	21,179
high	240,000	30,554

*(gross income less direct expense = contribution margin)

	Price (\$/1/2 ounce \ package)	Contribution Margin * at target yield of 225,000 bunches 1/2 ounce package
low	0.30	(68,821)
average	0.50	(23,821)
Target	0.70	21,179
High	1.00	88,679

*(gross income less direct expense = contribution margin)

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.

	J	F	M	A	M	J	J	A	S	O	N	D
% Income	20	10	15	15							10	30
% Expense	15	10	15						5	15	15	25

Sample Enterprise Budget and Worksheet Culinary Herb Production -1,000 m2 of Greenhouse Fraser Valley (two - 85 day cycles)

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.

Projected Income	Yield	Price	Unit	Income	Your Estimate
1/2 oz Packages	225,000	\$ 0.70	each	\$ 157,500.00	
Projected Direct Expenses	Quantity	Price	Unit	Expense	
<u>Supplies</u>					
Seed (kg)	4	\$ 83.00		\$ 332.00	
Planting Media (cubic metre)	330	176.07		58,103.10	
Plant Nutrients & Pest Control*				6,600.00	
Flats	22,300	0.83	each	18,509.00	
Tags	44,600	0.03	each	1,159.60	
Packaging (film bags)	225,000	0.05		11,250.00	
<u>Operations & Utilities</u>					
Fuel, Oil, Lubrication				220.00	
Repair & Maintenance				253.00	
Heating	100	12.36	1000MJ	1,236.00	
<u>Labour @ 12/hour</u>					
Potting	147 hrs			1,785	
Seeding	110 hrs			1,336	
Weed & Spray	367 hrs			4,460	
Maintenance	293 hrs			3,570	
Harvesting	1283 hrs			15,610	
Packaging	440 hrs			5,380	
Delivery	37 hrs			446	
Miscellaneous	37 hrs			446	
Marketing	.035 of total sales			5,625.00	
Total Direct Expenses				\$ 136,320.70	
Contribution Margin (gross income less direct expense)				\$ 21,179.30	

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

Culinary Herb Production -1,000 m2 of Greenhouse

Buildings and Machinery Replacement Cost

Greenhouse – 4,500 m ²	\$275,000
Benches – Stationary, 80% coverage	102,000
Heating System	75,000
Irrigation System	25,200
Buildings ¹	20,250
Small Tools & Spray Equipment ²	15,000
Vehicle ³	35,000
Total	\$547,450

¹ Propagation, Potting shed & Potting soil storage

² Sprayer, Hand Tools, Nozzles & Hoses

³ Delivery Truck

Labour Requirements

(Hours per 1000 m² Greenhouse)

Potting	145
Seeding	110
Weed, Water & Spray	365
Maintenance	295
Harvesting	1285
Packaging	440
Driving	35
Miscellaneous	35
Total	2,710

Key Success Factors

- Build favourable market reputation by ensuring consistent supply, high quality product and competitive prices.
- Proximity to market
- Excellent marketing contacts and production knowledge

Alternative Production Practices

- Organic production may be an option for culinary herb growers.
- Consumers may be willing to pay price premiums for certified organic culinary herbs (+10-20%).

For More Information

ATTRA - Appropriate Technology Transfer for Rural Areas

<http://www.attra.org/attra-pub/horticulture.html>

BCMAFF Website

<http://www.gov.bc.ca/agf/>

BCMAFF Infobasket

<http://infobasket.gov.bc.ca>

FBMInet-BC

<http://fbminet.ca/bc>

Saskatchewan Agriculture & Food Specialty Crops
http://www.agr.gov.sk.ca/Crops/Special_Crops.asp?firstpick=Crops&secondpick=Special%20Crops

University of California at Davis: Herbs Research & Information Centre

<http://vric.ucdavis.edu/veginfo/commodity/garden/herbs.html>

Contacts:

Jennifer Curtis, New Crop Specialist, BCMAFF, Abbotsford, 604-556-3057

Howard Joynt: Business Management Specialist, BCMAFF, Vernon, 250 260 -3000

Al Oliver, P.Ag., Special Crops Horticulturist, BCMAFF, Kamloops, 250-828-4631

Jim Portree, P.Ag., Provincial Greenhouse Specialist,

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

- Jennifer Curtis, New Crop Specialist, BCMAFF, Abbotsford, BC
- Barb DeCook: contractor, Vancouver, BC
- Howard Joynt: Business Management Specialist, BCMAFF, Vernon, BC
- Jim Portree, P.Ag., Provincial Greenhouse Specialist, BCMAFF, Abbotsford, BC