PLANNING FOR PROFIT

Ministry of Agriculture,
Food and Fisheries

Sage - Southern Interior
Spring 2000

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://fbminet.ca/bc or obtained from your local office of the B.C. Ministry of Agriculture, Food and Fisheries.

Market Factors

- Sage can be sold in either fresh and dried form into both culinary and medicinal markets. The culinary market is much bigger than the medicinal market with volumes on the order of 2-2.5 million kg imported into the US annually. The majority of this volume originates from Eastern Europe, a low cost producer. This dried, culinary product is valued at between $1.50-1.85/ kg (US$). Small volumes of high quality, certified organic, dried sage sell for $6-8/lb. while fresh bunched sage sells generally for $3.50-4.00/lb. (US$) fresh bunched.
- The medicinal market price for sage varies with market volumes. Sage was in demand from a number of Western Canadian buyers in 1999 but since the market volumes are small, supply can quickly saturate demand. It is imperative that thorough market research and volume and price assessment be carried out prior to planting this perennial crop.
- Sage can also be distilled by steam distillation or other more sophisticated methods to produce an essential oil used in cosmetic, perfumery, pharmaceutical products, and in food and beverage products as flavouring. Essential oil of sage is a minor essential oil in these markets. It is also used for aromatherapy. The essential oil trade in the US is increasing 12% per annum and while trade figures are not available for Canada, industry participants report similar growth. The major suppliers of sage essential oil are eastern European and Asian countries.

Risk Factors & Strategies

- Seasonal demand from the culinary market for fresh sage limits its market potential. Producers are advised to approach local hotel, restaurant and industry users as well as investigate the retail, fresh packaged herb market. Upscale produce and “farmer’s markets” are the most receptive.
- Variable demand from the medicinal market requires good communication and networking with potential processors in order to supply this market. Some aromatherapy companies operating in both Canada and the US purchase and blend sage oil.
- Canadian production should focus on local, high quality markets whose buyers are dissatisfied with the quality obtainable from Eastern Europe.
- Cultivar selection is in the early stages in Canada. Sage is a well-established herb with centuries of production and selection. However, most of the selections have been made for esthetic values rather than oil content or yield. Breeding programs for maximum yield and high oil content are underway in different areas of the world. Canadian and US seed companies carry a variety of sage cultivars.
- Sage is hardy to Zone 4.

Key Success Factors

- Fresh market development
- Mechanical harvesting

Production Targets

- Investment: $8,500-9,000/acre
- Total Labour: Yr 2 (1st Harvest) = 51.25hrs/acre
  Year 3+ = 65 hrs/acre

The above indicators are provided for comparison purposes and are set out as potential production targets.

Assumptions

The following assumptions were made in calculating the sample budget:

- 1 acre of sage, part of a 10 Acre herb operation growing in the Southern Interior.
- Sage is grown on a 6 year cycle.
- The operation is well managed.
- Target Yields of: Year 2= 250 lbs./acre,
  Years 3-6 = 2,000 lbs./acre
- Price (dried) $6-8/lb. (US)
- The land is seeded to a green manure (50 kg/acre @ $.28/kg) which is turned in prior to planting. This green manure is used as a weed suppressant as well as a source of nutrients for the young plants. Additional composted livestock manure is applied to supply organic matter and nutrients (6 yards/acre @ $20/yard).
- Planting Density of 19,800 plants/acre, 1 lb. seed/acre @ $100.00/lb., direct seeded into 4' beds with 2' aisles on 18" centres.
- Plants are thinned to the desired spacing during the thinning/hand weeding operation in Year 1. Supplemental weeding is done between rows with either the tine weeder or rototiller.
- Machinery Costs (fuel, oil and lube) are for the following operations: Field Preparation (disking and harrowing) (Year 1), Seed Cover Crop (Year 1), Disk (Year 2), Plant (Year 2), Cultivation (Year 2), Spread Manure (Year 2+), Tine Weed (Year 2), Rototill (Year 2+) and Harvest (Year 2+).
- Labour costs are calculated at $10.00/hour including UIC, CPP and WCB.

Building & Machinery Replacement Cost

Buildings[1]	$20,000
Power Machinery[2]	25,000
Field Machinery[3]	18,500
Vehicles	20,000
Other	5,000
Total	$88,500

1 Accomodates workshop, equipment, supply storage

[2] New 35 Hp tractor

[3] Disk, harrows, manure spreader, cultivator, rototiller, tine weeder, seeder

Labour Requirements

Hours per Acre Certified Organic Sage (1 Acre)

Field Preparation	3.25
Planting	.25
Thinning/Hand Weeding	40
Rototilling	5
Harvesting - Year 2	2.5
- Year 3+	20
Total Hours/Acre*	
- Year 1	1
- Year 2	51
- Year 3+	65

*Excluding Equipment Set-Up, Marketing, Drying, Grading and Sorting

Sample Enterprise Budget and Worksheet
Sage 1- Acre - Southern Interior

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

	Year 1	Your Estimate	Year 2	Your Estimate	Year 3-Year 6	Your Estimate
Projected Income Sage @ $6.00/lb.	0		$1,500		$12,000	
Projected Direct Expenses						
Plants and Seeds	$0		$100		$0	
Nutrients	134		120		120	
Pest Control	0		0		0	
Landscape Cloth	0		3,715		0	
Machinery Operation						
Fuel, Oil, Lubrication	6		29		14	
Repairs & Maintenance	0		209		209	
Labour	0		0		0	
Thinning/Hand Weeding			400		400	
Harvesting			125		1,000	
Grading & Packing			50		400	
Drying	0		63		500	
Marketing	0		150		1,200	
Packaging	0		25		200	
Total Direct Expenses	**$140**		**$4,986**		**$4,043**	

Calculation of Projected Net Income

To assess the net income of an enterprise, **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		…….

Cash Flow Timing

The information below indicates the timing of monthly flow of income and direct expenses. It is assumed that a portion of the crop is sold out of the field/dryer and that the remainder is sold over the following months. 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
%Inc							**10**	**10**	**10**	**20**	**30**	**20**
%Exp				**5**	**5**	**10**	**60**	**10**	**10**			

Sensitivity Analysis—Projected Income

The profitability of a sage operation will depend strongly on successful marketing.

The table below illustrates the changes to
- income as prices vary.
- to income as labour costs vary.
- to income as yields vary.

(bold denotes target values)

Price
$/lb.

Income	4.00	5.00	**6.00**	8.00
Year 2	-3,986	-3,736	**-3,486**	-2,986
Year 3	3,557	5,557	**7,957**	11,557
Year 4	3,557	5,557	**7,957**	11,557
Year 5	3,557	5,557	**7,957**	11,557
Year 6	3,557	5,557	**7,957**	11,557

Labour Cost
$/hr

Income	8.00	**10.00**	12.00	14.00
Year 2	-3,371	**-3,486**	-3,601	-3,716
Year 3	8,317	**7,957**	7,597	7,237
Year 4	8,317	**7,957**	7,597	7,237
Year 5	8,317	**7,957**	7,597	7,237
Year 6	8,317	**7,957**	7,597	7,237

Yield
lbs/Acre

Income	80%	**100%**	120%	140%
Year 2	-3,623	**-3,486**	-3,348	-3,211
Year 3	6,297	**7,957**	9,617	11,277
Year 4	6,297	**7,957**	9,617	11,277
Year 5	6,297	**7,957**	9,617	11,277
Year 6	6,297	**7,957**	9,617	11,277

For More Information

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