

PLANNING FOR PROFIT



Ministry of Agriculture,
Food, & Fisheries

Certified Organic Versus Non-Organic Budgets for Dandelion Root 1/4 Acre Winter 2002

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. Each farm should develop their own budget to reflect specific production goals, costs and market prices.

Information regarding financial planning and other enterprise budgets may be viewed at the B.C. Ministry of Agriculture, Food and Fisheries website (<http://www.agf.gov.bc.ca/busmgmt/>).

Key Success Factors

- Medium level of horticultural training and skills.
- Good site selection and preparation.
- Vigilant record keeping of all aspects of operation from production to marketing.
- Strong marketing skills - Identify and research your markets prior to planting.
- Reduce direct and indirect expenses as much as possible.

Risk Factors and Strategies

Production Risks - Disease, weed and insect control are essential to ensure high yields. Climate, topography & soil conditions will affect crop and variety options. Ensure you make selections that are suited to your area. Inexperience and lack of diligence can result in a set back or general reduction in crop yields. Adverse weather conditions can reduce yields and quality. Programs available to offset production risks include NISA and whole farm insurance.

Handling Risks - Ensure all crops are properly harvested, dried, packaged, stored and shipped. Improper handling may reduce the amount of your marketable product.

Price Risks - Depending upon your target market, competition from other local growers or import products is a constant factor. Adjustments in your production or marketing plans may be required. Providing a consistent and high quality product and ensuring customer needs are met are vital elements in offsetting adverse effects of a competitive market place.

Herbs prices are also very quantity sensitive. Small scale production may result in higher gains than production over 250 lbs.

Market Risks - This will depend upon your marketing strategy. Buyers for herb crops change rapidly. Demand for one herb may be high in one year and slow the next. Ensure that your commodity mix will allow for the rise and fall of the markets for individual herbs. Expect to spend a large portion of time keeping track of the current market.

Sample Enterprise Budget and Worksheet

Certified Organic Versus Non-Organic Budgets for Dandelion Root

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.

The following income and direct expense information does not account for general farm inputs that are applied to the total farm area (eg. general labour costs; general marketing costs; irrigation fees; repair&maintenance, organic certification fees).

Projected Income - Organic vs Conventional

	Area	Yield	Unit	Target	Your Farm
		Year 2		Price	
Dandelion root, cert organic	.25 acre	350	lbs	9.00	\$3,150.00

Projected Direct Expenses

Labour	Qty-Year 1	Qty-Year 2	Unit	Price	Expense-Yr 1	Expense-Yr 2
Weeding - hired labour	20	20	hour	8.00	160.00	160.00
Harvest - hired labour	0	64	hour	8.00	0.00	512.00
Total labour costs	20	84	hour	8.00	160.00	672.00
Seed Cost						
Dandelion	0.5		kg	675.00	337.50	0.00
Fall rye - cover crop		10	kg	0.65	0.00	0.00
Tractor Fuel						
	14	14	litres	0.50	7.00	7.00
Tractor Oil & lube						
					1.05	1.05
Packaging						
Bags - large		10	each	0.05	0.00	0.50
Corrugated boxes		10	each	2.50	0.00	25.00
Marketing						
Advertising/faxes/telephone					0.00	100.00
Irrigation	0.25	0.25	acres	60.00	15.00	15.00
TOTAL					\$520.55	\$820.55

1st Year Expenses

-\$520.55

Income less Direct Expenses (certified organic production)

\$2,329.45

Projected Indirect Expenses

Depreciation	_____
Interest	_____
Insurance	_____
Administration	_____
Legal/accounting	_____
Other	_____

Total

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 Net Income

Projected Income	_____
<i>minus</i> Projected Direct AND Indirect Expenses	_____
	Projected Net Income	_____

Sensitivity Analysis of Total Production Income

Profitability is strongly influenced by market prices and yield. The tables below illustrate the changes to income as prices and yield vary.

Price vs. Income	Low Price	Average Price	Target Price	High Price
	\$3.00	\$7.00	\$9.00	\$11.00
Total Income	\$229	\$1,629	\$2,329	\$3,029

Yield vs. Income	Low Yield	Average Yield	Target Yield	High Yield
	200	275	350.00	435.00
Total Income	979.45	1,654.45	2,329.45	3,094.45

Certified Organic vs Conventional

	Area	Yield	Unit	Average Price	Price Range	Total Income
Dandelion root, cert organic	.25 acre	350	lbs	9.00	6.50-12.00	\$3,150.00
Dandelion root, conventional	.25 acre	350	lbs	2.50	2.00-4.00	\$875.00

Cash Flow Timing

The table below indicates the monthly flow of income and indirect expenses.

	J	F	M	A	M	J	J	A	S	O	N	D	Total
% Direct Expenses - Year 1	0	0	16	2	5	5	5	0	0	0	0	0	35%
% Direct Expenses - Year 2	0	0	0	5	5	5	5	40	0	0	0	0	65%
% Income - Year 2	0	0	0	0	0	0	0	0	50	0	50	0	100%

Total Labour Hours Required

Labour	Qty-Year 1	Qty-Year 2
Seeding	1	0
Weeding	20	20
Weeding - hired labour	20	20
Pest/Disease control	4	4
Fertilization	2	2
Irrigation	2	2
Harvest	0	32
Harvest - hired labour	0	64
Washing/Drying	0	8
Packaging	0	4
Soil prep	1.5	1.5
Seeding of cover crop-Fall	0.0	0.5
Total hired labour hours	20	84
Total operator labour hours	30.5	74
Total labour hours	50.5	158

Investment Capital Replacement Costs

Buildings	\$15,000
Tractor	15,000
Implements	
..... Tillers	8,000
..... Harrows	2,000
Rototiller	500
Washing equipment	200
Dryer	1,500
Bins/totes etc.	100
Hand trucks/dolleys	100
Scale	300
Vehicle	12,000
Small Tools & Equipment	500
Irrigation System	3,000
Total	\$58,200

Assumptions

The following assumptions were made in calculating the sample budget:

General Farm Assumptions

Income & Expenses:

- Projected income and expenses are based on current markets.

Cover crop Assumptions (.25 acres):

- Planting rate: 40kg fall rye/acre; 10 kg total requirements.
- Tractor hours: 3hrs/acre soil prep in fall; 1hr/acre discing in seed; 3hrs/acre soil prep in spring; total 7hrs/acre x .25 acres = 1.75 hrs.
- Cover crop (fall rye) planted in the fall (September) after harvest of annual crops. Time to work in crop residues and prepare soil for seeding is 3hr/acre. Seed is broadcasted by hand (1hr/acre) and then disc'd into the soil (1hr/acre). In the spring the cover crop is worked back into the soil and the land is prepared for planting (3hr/acre). Nutrients applied to cover crop will be subsequently be released to food crop.
- Cover crop is used as a green manure (ie.nutrient/organic matter source) with no direct income gained

Dandelion Assumptions

Planting Information:

- Planting is based on rows with 30" centres. Aim for 12" between plants.
- Planting seed is done by hand.

Marketing Information:

- Prices are based on selling entire production to a small to mid-size manufacturer. A more difficult market are selling directly to retail customers, small craft companies or herbalists. A higher price could be realized in the smaller market but will increase the time and expense required for marketing and packaging.
- There is potential for increasing income from this crop by selling dandelion greens. As this is a very small and specialized market, figures are not included for this type of sale.

Quality Considerations

- Crops with low plate counts are very attractive to some potential customers. Lab tests for this are quite inexpensive.

Labour requirements:

- Herb enterprises are normally conducted using operator labour with occasional outside help brought in during weed and harvest crisis situations.
- Most weed control labour happens during the seedling stage when the plants are the least weed tolerant.
- Harvest labour is estimated on digging 45 plants per hour.

Equipment Costs:

- Tractor Fuel Costs are calculated as follows: no - of tractor hours x 8L/hr consumption x \$0.50/L price -
- Oil & lube costs are assumed at 15% of fuel costs.
- Repair and Maintenance costs are calculated at 3% of investment capital replacement costs
- Investment Capital replacements cost are for a 10 acre farm with 2 acres in production.

References:

- Technical Feasibility Study for Medicinal & Aromatic Plants - AG Consulting
- Medicinal Herbs in the Garden, Field & Marketplace, L. Sturdivant, T. Blakeley
- Potential of Herbs as a Cash Crop, RA Miller
- Richters Herbs, www.richters.com
- BCMAFF - Planning for Profit Budgets - available <http://www.agf.gov.bc.ca/busmgmt/budgets/index.htm>

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