



Southwest British Columbia Small-Scale Farm Enterprise Budget: **Carrot**



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This enterprise budget presents costs and returns for a 0.5 acre of carrots grown on a small-scale mixed vegetable farm in southwest British Columbia, Canada. The sample values are typical of small-scale root crop production using low-input growing methods and selling directly to consumers through venues such as farmers' markets. These values were derived from data gathering sessions with representative farmers from the region, but do not represent any particular farm, and should be used only as a guide. The actual costs of production may vary from farm to farm depending on production method and scale, machinery use and other input costs. This budget is also available as a dynamic MS Excel spreadsheet to facilitate more detailed planning for your own operation. Please refer to the "Institute for Sustainable Food Systems Enterprise Budget User Guide for assistance in tailoring the spreadsheet to your own farm.

Assumptions:

- 1) The carrot crop area is half an acre, consisting of 54 beds, each measuring 4' x 100' (400 square feet per bed) grown on a small-scale mixed-vegetable farm.
- 2) Carrot takes three months from seed to harvestable maturity.
- 3) An annual land rent of \$400 per acre is included in overhead charges.
- 4) Physical farm labourers (regular labour) are paid \$12 per hour.
- 5) Equipment operators (operator labour) are paid \$15 per hour.
- 6) The proportion of sales of carrot to the total annual sales of 20 crops, grown on a 3.85-acre mixed vegetable farm, is used to allocate marketing costs to the carrot enterprise.
- 7) The proportion of the farm's total cultivated acreage used to grow carrots is used to allocate fixed costs to the carrot enterprise.
- 8) Fuel cost is \$1.30 per liter.
- 9) The interest rate is fixed at 5%.
- 10) The annual fixed cost is estimated using the straight-line depreciation method.
- 11) Management time is not included as a cost. The net return over total cost may be considered as the return to management time.

REVENUE					
Item	Quantity per 0.5 acre	Unit	\$ per unit	\$ per 0.5 acre	\$ per 100' bed
Carrot	8,000.00	pounds	\$2.00	\$16,000.00	\$296.30

ANNUAL VARIABLE COST					
Item	Quantity per 0.5 acre	Unit	\$ per unit	\$ per 0.5 acre	\$ per 100' bed
Seeds and Plants					
Seeds	1	pounds	500.00	500.00	9.26
Cover crop (grain) seeds	30	pounds	0.50	15.00	0.28
Fertility and Nutrients					
Bone meal	100	pounds	1.00	100.00	1.85
Alfalfa	100	pounds	1.00	100.00	1.85
Lime	100	pounds	1.00	100.00	1.85
Other Materials					
Row cover	2	5000 ft ²	200.00	400.00	7.41
Land Preparation					
Prepare land (plow, disc, rotovate) – operator labour	1.5	hours	15.00	22.50	0.42
Apply pre-plant amendments (lime, bone meal, alfalfa) – operator labour	0.75	hour	15.00	11.25	0.21
Planting					
Seeding – regular labour	2	hours	12.00	24.00	0.44
Pest Management					
Flame weeding – regular labour	1	hour	12.00	12.00	0.22
Hand-weeding – regular labour	160	hours	12.00	1920.00	35.56
Hoe-weeding – regular labour	10	hours	12.00	120.00	2.22
Post-Harvest Activities					
Harvesting – regular labour	60	hours	12.00	720.00	13.33
Post-harvest handling (wash, sort, pack, store) – regular labour	16	hours	12.00	192.00	3.56
Miscellaneous Expenses					
Repair and maintenance				606.89	11.24
Fuel				30.75	0.57
Interest on working capital				61.53	1.14
Marketing				1,754.04	32.48
TOTAL LABOUR COST				3,105.75	57.51
TOTAL MATERIAL COST				1,115.10	20.65
TOTAL MISCELLANEOUS COST				2,445.84	45.29
TOTAL VARIABLE COST				6,666.69	123.46

ANNUAL FIXED COST		
Item	\$ per 0.5 acre	\$ per 100' bed
Machinery		
Tractor	224.03	4.15
Rototiller	47.62	0.88
Discer	22.73	0.42
Manure spreader	64.94	1.20
Van (for delivery)	285.71	5.29
Pick-up truck (for farming operations)	95.24	1.76
Equipment and tools	321.32	5.95
Irrigation	183.73	3.40
Building	195.89	3.63
Overhead charges		
Land rent	210.00	3.89
Soil test	13.64	0.25
Farm liability insurance	81.82	1.52
Motor vehicle insurance	279.55	5.18
Office expenses	136.36	2.53
Electricity	95.45	1.77
Water	136.36	2.53
Telephone and internet	68.18	1.26
Bookkeeping fees	818.18	15.15
Professional fees (accountant, lawyers, etc.)	95.45	1.77
TOTAL ANNUAL FIXED COST	3,376.20	62.52

TOTAL COST	\$ per 0.5 acre	\$ per 100' bed
TOTAL FIXED AND VARIABLE COST	10,042.88	185.98

NET RETURNS		
Item	\$ per 0.5 acre	\$ per 100' bed
Returns over Variable Cost	13,333.31	246.91
Returns over Fixed Cost	16,623.80	307.85
Returns over Total Cost	9,957.12	184.39

MACHINERY INFORMATION				
Item	Type	Purchase Price (\$)	Trade-in Value (\$)	Useful Life (Years)
Tractor	25 HP (new)	23,000.00	0.00	20
Rototiller	48" (new)	4,000.00	0.00	15
Discer	used	1,200.00	0.00	30
Manure spreader	used	4,000.00	0.00	10
Sprayer	used	5,000.00	0.00	10
Delivery van	Isuzu 2002 (used)	24,000.00	0.00	15
Pick-up truck	used	8,000.00	0.00	15

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