



# Southwest British Columbia Small-Scale Farm Enterprise Budget: Winter Squash



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This enterprise budget presents costs and returns for a 0.1 acre of winter squash grown on a small-scale mixed vegetable farm in southwest British Columbia, Canada. The sample values are typical of small-scale cucurbit 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 winter squash crop area is 0.1 acre, consisting of 11 beds, each measuring 4' x 100' (400 square feet per bed) grown on a small-scale mixed-vegetable farm.
- 2) Winter squash 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 winter squash to the total annual sales of 16 crops, grown on a 2-acre mixed vegetable farm, is used to allocate marketing costs to the winter squash enterprise.
- 7) The proportion of the farm's total cultivated acreage used to grow winter squash is used to allocate fixed costs to the winter squash 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.

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<b>REVENUE</b>					
<b>Item</b>	<b>Quantity per 0.1 Acre</b>	<b>Unit</b>	<b>\$ per unit</b>	<b>\$ per 0.1 Acre</b>	<b>\$ per 100' Bed</b>
Winter squash	4,500.00	pounds	\$1.50	\$6,750.00	\$613.64

<b>ANNUAL VARIABLE COST</b>					
<b>Item</b>	<b>Quantity per 0.1 Acre</b>	<b>Unit</b>	<b>\$ per unit</b>	<b>\$ per 0.1 Acre</b>	<b>\$ per 100' Bed</b>
<b>Seeds and Plants</b>					
Seed	800.00	seeds	0.05	40.00	3.64
Cover crop seeds				30.00	2.73
<b>Fertility and Nutrients</b>					
Compost (Chicken manure)	300.00	pounds	0.60	180.00	16.36
Lime	150.00	pounds	0.30	45.00	4.09
<b>Other Materials</b>					
Potting mix			12.00	12.00	1.09
Trays	16.00	trays	1.20	19.20	1.75
Mulch (BioTelo)	15.00	100 feet	12.50	187.50	17.05
<b>Land Preparation</b>					
Custom plowing				4.80	0.44
Apply pre-plant amendments (lime, manure) – regular labour	8	hours	12.00	96.00	8.73
Prepare for planting (form beds, irrigation set-up, etc) – operator labour	1.5	hours	15.00	22.50	2.05
<b>Planting</b>					
Transplanting ( potting up, moving, transplanting) – regular labour	8.5	hours	12.00	102.00	9.27
<b>Pest Management</b>					
Mulching – regular labour	30	hours	12.00	360.00	32.73
<b>Other Activities</b>					
Irrigating (manage drip or overhead) – regular labour	0.5	hours	12.00	6.00	0.55
<b>Post-Harvest Activities</b>					
Harvesting – regular labour	30	hours	12.00	360.00	32.73
<b>Miscellaneous Expenses</b>					
Repair and maintenance				97.00	8.82
Fuel				9.90	0.90
Interest on working capital				19.65	1.79
Marketing				924.14	84.01
<b>TOTAL LABOUR COST</b>				<b>951.30</b>	<b>86.48</b>
<b>TOTAL MATERIAL COST</b>				<b>513.70</b>	<b>46.70</b>
<b>TOTAL MISCELLANEOUS COST</b>				<b>1,050.69</b>	<b>95.52</b>
<b>TOTAL VARIABLE COST</b>				<b>2,515.69</b>	<b>228.70</b>

<b>ANNUAL FIXED COST</b>		
<b>Item</b>	<b>\$ per 0.1 Acre</b>	<b>\$ per 100' Bed</b>
<b>Machinery</b>		
Tractor	58.13	5.28
Rototiller	15.21	1.38
Pick-up truck	160.42	14.58
Trailer	3.75	0.34
<b>Equipment and tools</b>	28.53	2.59
<b>Irrigation</b>	54.58	4.96
<b>Building and shelter</b>	30.88	2.81
<b>Overhead charges</b>		
Land rent	42.00	3.82
Soil test	5.25	0.48
Farm liability insurance	44.10	4.01
Motor vehicle insurance	109.20	9.93
Office expenses	26.25	2.39
Electricity	50.40	4.58
Water	52.50	4.77
Telephone and internet	26.25	2.39
<b>TOTAL ANNUAL FIXED COST</b>	<b>707.43</b>	<b>64.31</b>

<b>TOTAL COST</b>	<b>\$ per 0.1 Acre</b>	<b>\$ per 100' Bed</b>
<b>TOTAL FIXED AND VARIABLE COST</b>	<b>3,223.12</b>	<b>293.01</b>

<b>NET RETURNS</b>		
<b>Item</b>	<b>\$ per 0.1 Acre</b>	<b>\$ per 100' Bed</b>
<b>Return Over Variable Cost</b>	<b>4,234.31</b>	<b>384.94</b>
<b>Return Over Fixed Cost</b>	<b>6,042.57</b>	<b>549.32</b>
<b>Return Over Total Cost</b>	<b>3,526.88</b>	<b>320.63</b>

<b>MACHINERY INFORMATION</b>				
<b>Item</b>	<b>Type</b>	<b>Purchase Price (\$)</b>	<b>Trade-in Value (\$)</b>	<b>Useful Life (Years)</b>
Tractor	23 HP	16,000.00	1500.00	20
Rototiller	48" (new)	4,000.00	1500.00	15
Manure spreader	used	5,000.00	0.00	10
Pick-up truck	new	35,000.00	0.00	15
Trailer	used	1,000.00	0.00	20

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