



# Southwest British Columbia Small-Scale Farm Enterprise Budget: **Broccoli**



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This enterprise budget presents costs and returns for a 0.25 acre of broccoli grown on a small-scale mixed vegetable farm in southwest British Columbia, Canada. The sample values are typical of small-scale brassica 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 broccoli crop area is 0.25 acre, consisting of 27 beds, each measuring 4' x 100' (400 square feet per bed) grown on a small-scale mixed-vegetable farm.
- 2) Broccoli takes four 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 broccoli 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 broccoli enterprise.
- 7) The proportion of the farm's total cultivated acreage used to grow broccoli is used to allocate fixed costs to the broccoli 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.

<b>REVENUE</b>					
<b>Item</b>	<b>Quantity per 0.25 Acre</b>	<b>Unit</b>	<b>\$ per Unit</b>	<b>\$ per 0.25 Acre</b>	<b>\$ per 100' Bed</b>
Broccoli	2,000.00	pounds	\$3.00	\$6,000.00	\$222.22

<b>ANNUAL VARIABLE COST</b>					
<b>Item</b>	<b>Quantity per 0.25 Acre</b>	<b>Unit</b>	<b>\$ per unit</b>	<b>\$ per 0.25 Acre</b>	<b>\$ per 100' Bed</b>
<b>Seeds and Plants</b>					
Seed	6000.00	seeds	0.01	75.00	2.78
Cover crop (winter grain) seeds	14.00	seeds	0.71	10.00	0.37
<b>Fertility and Nutrients</b>					
Compost	3.75	yards	40.00	150.00	5.56
Lime	500.00	pounds	0.10	50.00	1.85
<b>Other Materials</b>					
BT				33.00	1.22
Potting mix				40.00	1.48
Trays	60.00	trays	1.20	72.00	2.67
<b>Land Preparation</b>					
Prepare land (plow, disk, rotovate) – operator labour	1	hours	15.00	15.00	0.56
Apply pre-plant amendments (lime, compost) – operator labour	1	hours	15.00	15.00	0.56
<b>Planting</b>					
Transplanting ( potting up, moving, transplanting) – regular labour	30	hours	12.00	360.00	13.33
<b>Pest Management</b>					
Weeding – regular labour	20	hours	12.00	240.00	8.89
Spraying BT – regular labour	20	hours	12.00	240.00	8.89
<b>Other Activities</b>					
Irrigating (set up, manage drip) – regular labour	10	hours	12.00	120.00	4.44
<b>Post-Harvest Activities</b>					
Harvesting – regular labour	15	hours	12.00	180.00	6.67
<b>Miscellaneous Expenses</b>					
Repair and maintenance				281.92	10.44
Fuel				13.80	0.51
Interest on working capital				31.60	1.17
Marketing				527.44	19.53
<b>TOTAL LABOUR COST</b>				<b>1,170.00</b>	<b>43.33</b>
<b>TOTAL MATERIAL COST</b>				<b>430.00</b>	<b>15.93</b>
<b>TOTAL MISCELLANEOUS COST</b>				<b>854.75</b>	<b>31.66</b>
<b>TOTAL VARIABLE COST</b>				<b>2,454.74</b>	<b>90.92</b>

<b>ANNUAL FIXED COST</b>		
<b>Item</b>	<b>\$ per 0.25 Acre</b>	<b>\$ per 100' Bed</b>
<b>Machinery</b>		
Tractor	112.01	4.15
Rototiller	23.81	0.88
Discer	11.36	0.42
Manure spreader	32.47	1.20
Delivery van	142.86	5.29
Pick-up truck	47.62	1.76
<b>Equipment and tools</b>	62.50	2.31
<b>Irrigation</b>	327.24	12.12
<b>Building and shelter</b>	426.28	15.79
<b>Overhead charges</b>		
Land rent	105.00	3.89
Soil test	6.82	0.25
Farm liability insurance	40.91	1.52
Motor vehicle insurance	139.77	5.18
Office expenses	68.18	2.53
Electricity	47.73	1.77
Water	68.18	2.53
Telephone and internet	34.09	1.26
Bookkeeping fees	409.09	15.15
Professional fees (accountant, lawyers, etc.)	47.73	1.77
<b>TOTAL ANNUAL FIXED COST</b>	<b>2,153.66</b>	<b>79.77</b>

<b>TOTAL COST</b>	<b>\$ per 0.25 Acre</b>	<b>\$ per 100' Bed</b>
<b>TOTAL FIXED AND VARIABLE COST</b>	<b>4,608.40</b>	<b>170.68</b>

<b>NET RETURNS</b>		
<b>Item</b>	<b>\$ per 0.25 Acre</b>	<b>\$ per 100' Bed</b>
<b>Return Over Variable Cost</b>	<b>3,545.26</b>	<b>131.31</b>
<b>Return Over Fixed Cost</b>	<b>3,846.34</b>	<b>142.46</b>
<b>Return Over Total Cost</b>	<b>1,391.60</b>	<b>51.54</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	25 HP (new)	23,000.00	0.00	20
Rototiller	48" (new)	4,000.00	0.00	15
Discer	used	3,000.00	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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