



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



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This enterprise budget presents costs and returns for a 0.025 acre of spinach grown on a small-scale mixed vegetable farm in southwest British Columbia, Canada. The sample values are typical of small-scale short season 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 spinach crop area is 0.025 acre, consisting of three beds, each measuring 4' x 100' (400 square feet per bed) grown on a small-scale mixed-vegetable farm.
- 2) Spinach takes two 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 spinach to the total annual sales of 16 crops, grown on a 2-acre mixed vegetable farm, is used to allocate marketing costs to the spinach enterprise.
- 7) The proportion of the farm's total cultivated acreage used to grow spinach is used to allocate fixed costs to the spinach 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 0.025 Acre</b>	<b>Unit</b>	<b>\$ per unit</b>	<b>\$ per 0.025 Acre</b>	<b>\$ per 100' Bed</b>
Spinach	810.00	bunches	\$2.50	\$2,025.00	\$6,75.00

<b>ANNUAL VARIABLE COST</b>					
<b>Item</b>	<b>Quantity per 0.025 Acre</b>	<b>Unit</b>	<b>\$ per unit</b>	<b>\$ per 0.025 Acre</b>	<b>\$ per 100' Bed</b>
<b>Seeds and Plants</b>					
Seed	14.00	1000 seeds	1.50	21.00	7.00
<b>Fertility and Nutrients</b>					
Compost (Chicken manure)	200.00	pounds	0.10	20.00	6.67
Lime	50.00	pounds	0.30	15.00	5.00
<b>Land Preparation</b>					
Custom plowing				6.00	2.00
Apply pre-plant amendments (lime, manure) – regular labour	1.25	hours	12.00	15.00	5.00
Apply pre-plant amendments (lime, manure) – operator labour	1.25	hours	15.00	18.75	6.25
Prepare for planting (form beds, lay row cover, irrigation set-up, etc) – regular labour	0.5	hours	12.00	6.00	2.00
Prepare for planting (form beds, lay row cover, irrigation set-up, etc) –operator labour	0.5	hours	15.00	7.50	2.50
<b>Planting</b>					
Seeding – regular labour	1	hours	12.00	12.00	4.00
<b>Pest Management</b>					
Weeding – regular labour	10	hours	12.00	120.00	40.00
<b>Other Activities</b>					
Irrigating (manage drip or overhead) – regular labour	0.5	hours	12.00	6.00	2.00
<b>Post-Harvest Activities</b>					
Harvesting – regular labour	18	hours	12.00	216.00	72.00
Post-harvest handling (wash, sort, pack, store) – regular labour	30	hours	12.00	360.00	120.00
<b>Miscellaneous Expenses</b>					
Repair and maintenance				24.25	8.08
Fuel				11.55	3.85
Interest on working capital				7.16	2.39
Marketing				279.15	93.05
<b>TOTAL LABOUR COST</b>				<b>767.25</b>	<b>255.75</b>
<b>TOTAL MATERIAL COST</b>				<b>56.00</b>	<b>18.67</b>
<b>TOTAL MISCELLANEOUS COST</b>				<b>322.11</b>	<b>107.37</b>
<b>TOTAL VARIABLE COST</b>				<b>1,145.36</b>	<b>381.79</b>

<b>ANNUAL FIXED COST</b>		
<b>Item</b>	<b>\$ per 0.025 Acre</b>	<b>\$ per 100' Bed</b>
<b>Machinery</b>		
Tractor	4.84	4.84
Rototiller	1.27	1.27
Manure spreader	2.60	2.60
Pick-up truck	13.37	13.37
Trailer	0.31	0.31
<b>Equipment and tools</b>	7.13	2.38
<b>Irrigation</b>	13.65	4.55
<b>Building and shelter</b>	7.72	2.57
<b>Overhead charges</b>		
Land rent	10.50	3.50
Soil test	1.31	0.44
Farm liability insurance	11.03	3.68
Motor vehicle insurance	27.30	9.10
Office expenses	6.56	2.19
Electricity	12.60	4.20
Water	13.13	4.38
Telephone and internet	6.56	2.19
<b>TOTAL ANNUAL FIXED COST</b>	<b>184.67</b>	<b>61.56</b>

<b>TOTAL COST</b>	<b>\$ per 0.025 Acre</b>	<b>\$ per 100' Bed</b>
<b>TOTAL FIXED AND VARIABLE COST</b>	<b>1,330.03</b>	<b>443.34</b>

<b>NET RETURNS</b>		
<b>Item</b>	<b>\$ per 0.025 Acre</b>	<b>\$ per 100' Bed</b>
<b>Return Over Variable Cost</b>	<b>879.64</b>	<b>293.21</b>
<b>Return Over Fixed Cost</b>	<b>1,840.33</b>	<b>613.44</b>
<b>Return Over Total Cost</b>	<b>694.97</b>	<b>231.66</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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