This enterprise budget presents costs and returns for a 0.125 acre of turnips 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 turnip crop area is 0.125 (1/8) acre, consisting of 14 beds, each measuring 4’ x 100’ (400 square feet per bed) grown on a small-scale mixed-vegetable farm.
2) Turnip 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 turnip 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 turnip enterprise.
7) The proportion of the farm’s total cultivated acreage used to grow turnips is used to allocate fixed costs to the turnip 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

<table>
<thead>
<tr>
<th>Item</th>
<th>Quantity per 0.125 Acre</th>
<th>Unit</th>
<th>$ per unit</th>
<th>$ per 0.125 Acre</th>
<th>$ per 100' Bed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Turnip</td>
<td>1,750.00</td>
<td>pounds</td>
<td>$2.50</td>
<td>$4,375.00</td>
<td>$312.50</td>
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</table>

## ANNUAL VARIABLE COST

<table>
<thead>
<tr>
<th>Item</th>
<th>Quantity per 0.125 Acre</th>
<th>Unit</th>
<th>$ per unit</th>
<th>$ per 0.125 Acre</th>
<th>$ per 100' Bed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seeds and Plants</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Seed</td>
<td>0.60</td>
<td>pounds</td>
<td>20.00</td>
<td>12.00</td>
<td>0.86</td>
</tr>
<tr>
<td>Cover crop (winter grain) seed</td>
<td>27.00</td>
<td>pounds</td>
<td>0.60</td>
<td>16.20</td>
<td>1.16</td>
</tr>
<tr>
<td>Fertility and Nutrients</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chicken manure</td>
<td>1.63</td>
<td>yards</td>
<td>50.00</td>
<td>81.25</td>
<td>5.80</td>
</tr>
<tr>
<td>Lime</td>
<td>260.00</td>
<td>pounds</td>
<td>0.10</td>
<td>26.00</td>
<td>1.86</td>
</tr>
<tr>
<td>Other Materials</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Floating row cover (reemay)</td>
<td>1.00</td>
<td>5000 sq. ft</td>
<td>200.00</td>
<td>200.00</td>
<td>14.29</td>
</tr>
<tr>
<td>Land Preparation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prepare land (plow, disk, rotovate) – operator labour</td>
<td>0.5</td>
<td>hours</td>
<td>15.00</td>
<td>7.50</td>
<td>0.54</td>
</tr>
<tr>
<td>Apply pre-plant amendments (lime, fertilizer, manure, compost) – operator labour</td>
<td>0.25</td>
<td>hours</td>
<td>15.00</td>
<td>3.75</td>
<td>0.27</td>
</tr>
<tr>
<td>Planting</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Seeding – regular labour</td>
<td>0.5</td>
<td>hours</td>
<td>12.00</td>
<td>6.00</td>
<td>0.43</td>
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<tr>
<td>Pest Management</td>
<td></td>
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<tr>
<td>Hand-weeding – regular labour</td>
<td>40</td>
<td>hours</td>
<td>12.00</td>
<td>480.00</td>
<td>34.29</td>
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<tr>
<td>Hoe-weeding – regular labour</td>
<td>2.5</td>
<td>hours</td>
<td>12.00</td>
<td>30.00</td>
<td>2.14</td>
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<tr>
<td>Other Activities</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Irrigating (set up, manage overhead or drip) – regular labour</td>
<td>1</td>
<td>hours</td>
<td>12.00</td>
<td>12.00</td>
<td>0.86</td>
</tr>
<tr>
<td>Post-Harvest Activities</td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>Harvesting – regular labour</td>
<td>11</td>
<td>hours</td>
<td>12.00</td>
<td>132.00</td>
<td>9.43</td>
</tr>
<tr>
<td>Post-harvest handling (wash, sort, pack, store) – regular labour</td>
<td>3.5</td>
<td>hours</td>
<td>12.00</td>
<td>42.00</td>
<td>3.00</td>
</tr>
<tr>
<td>Miscellaneous Expenses</td>
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<tr>
<td>Repair and maintenance</td>
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<td>148.85</td>
<td>10.63</td>
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<tr>
<td>Fuel</td>
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<td>5.25</td>
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<tr>
<td>Interest on working capital</td>
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<td>15.03</td>
<td>1.07</td>
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<tr>
<td>Marketing</td>
<td></td>
<td></td>
<td>385.07</td>
<td>27.50</td>
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**TOTAL LABOUR COST**: 713.25  \hspace{1cm} 50.95

**TOTAL MATERIAL COST**: 335.45  \hspace{1cm} 23.96

**TOTAL MISCELLANEOUS COST**: 554.20  \hspace{1cm} 39.59

**TOTAL VARIABLE COST**: 1,602.90  \hspace{1cm} 114.49
<table>
<thead>
<tr>
<th>Item</th>
<th>$ per 0.125 Acre</th>
<th>$ per 100' Bed</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Machinery</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tractor</td>
<td>56.01</td>
<td>4.00</td>
</tr>
<tr>
<td>Rototiller</td>
<td>11.90</td>
<td>0.85</td>
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<tr>
<td>Discer</td>
<td>5.68</td>
<td>0.41</td>
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<tr>
<td>Manure spreader</td>
<td>16.23</td>
<td>1.16</td>
</tr>
<tr>
<td>Delivery van</td>
<td>71.43</td>
<td>5.10</td>
</tr>
<tr>
<td>Pick-up truck</td>
<td>23.81</td>
<td>1.70</td>
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<tr>
<td><strong>Equipment and tools</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>68.66</td>
<td>4.90</td>
</tr>
<tr>
<td><strong>Irrigation</strong></td>
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<td></td>
</tr>
<tr>
<td></td>
<td>45.93</td>
<td>3.28</td>
</tr>
<tr>
<td><strong>Building and shelter</strong></td>
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<tr>
<td></td>
<td>48.97</td>
<td>3.50</td>
</tr>
<tr>
<td><strong>Overhead charges</strong></td>
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<tr>
<td>Land rent</td>
<td>52.50</td>
<td>3.75</td>
</tr>
<tr>
<td>Soil test</td>
<td>3.41</td>
<td>0.24</td>
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<tr>
<td>Farm liability insurance</td>
<td>20.45</td>
<td>1.46</td>
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<td>Motor vehicle insurance</td>
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<td>Office expenses</td>
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<tr>
<td>Electricity</td>
<td>23.86</td>
<td>1.70</td>
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<tr>
<td>Water</td>
<td>34.09</td>
<td>2.44</td>
</tr>
<tr>
<td>Telephone and internet</td>
<td>17.05</td>
<td>1.22</td>
</tr>
<tr>
<td>Bookkeeping fees</td>
<td>204.55</td>
<td>14.61</td>
</tr>
<tr>
<td>Professional fees (accountant, lawyers, etc)</td>
<td>23.86</td>
<td>1.70</td>
</tr>
<tr>
<td><strong>TOTAL ANNUAL FIXED COST</strong></td>
<td><strong>832.38</strong></td>
<td><strong>59.46</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>TOTAL COST</strong></th>
<th>$ per 0.125 Acre</th>
<th>$ per 100' Bed</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>TOTAL FIXED AND VARIABLE COST</strong></td>
<td><strong>2,435.28</strong></td>
<td><strong>173.95</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Item</th>
<th>$ per 0.125 Acre</th>
<th>$ per 100' Bed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Return Over Variable Cost</td>
<td><strong>2,772.10</strong></td>
<td><strong>198.01</strong></td>
</tr>
<tr>
<td>Return Over Fixed Cost</td>
<td><strong>3,542.62</strong></td>
<td><strong>253.04</strong></td>
</tr>
<tr>
<td>Return Over Total Cost</td>
<td><strong>1,939.72</strong></td>
<td><strong>138.55</strong></td>
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</tbody>
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### MACHINERY INFORMATION

<table>
<thead>
<tr>
<th>Item</th>
<th>Type</th>
<th>Purchase Price ($)</th>
<th>Trade-in Value ($)</th>
<th>Useful Life (Years)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tractor</td>
<td>25 HP (new)</td>
<td>23,000.00</td>
<td>0.00</td>
<td>20</td>
</tr>
<tr>
<td>Rototiller</td>
<td>48&quot; (new)</td>
<td>4,000.00</td>
<td>0.00</td>
<td>15</td>
</tr>
<tr>
<td>Discer</td>
<td>used</td>
<td>3,000.00</td>
<td>0.00</td>
<td>30</td>
</tr>
<tr>
<td>Manure spreader</td>
<td>used</td>
<td>4,000.00</td>
<td>0.00</td>
<td>30</td>
</tr>
<tr>
<td>Sprayer</td>
<td>used</td>
<td>5,000.00</td>
<td>0.00</td>
<td>10</td>
</tr>
<tr>
<td>Delivery van</td>
<td>Isuzu 2002</td>
<td>24,000.00</td>
<td>0.00</td>
<td>15</td>
</tr>
<tr>
<td>Pick-up truck</td>
<td>used</td>
<td>8,000.00</td>
<td>0.00</td>
<td>15</td>
</tr>
</tbody>
</table>

### ACKNOWLEDGMENTS

The authors would like to express our sincere appreciation to all the farmers who contributed information used to develop this enterprise budget. We would also like to thank Chris Bodnar, co-owner of Close to Home Organics Ltd, and Heather Pritchard, farm program manager at Farm Folk City Folk, for helping us connect with experienced farmers. We would like to recognize Kwantlen Polytechnic University’s Michael Bomford (Sustainable Agriculture & Food Systems) and Caitlin Dorward (Institute for Sustainable Food Systems) for their invaluable input to this document. Finally, we would like to acknowledge the financial support provided by Vancouver City Savings Credit Union (VanCity).