

## Southwest British Columbia Small-Scale Farm Enterprise Budget: Cabbage



Technical Bulletin 2015-003 kpu.ca/isfs

Ermias Afeworki, Wallapak Polasub, Caroline Chiu and Kent Mullinix

This enterprise budget presents costs and returns for a 0.25 acre of cabbage 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 cabbage 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) Cabbage 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 cabbage 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 cabbage enterprise.
- 7) The proportion of the farm's total cultivated acreage used to grow cabbage is used to allocate fixed costs to the cabbage 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 0.25 Acre	Unit	\$ per unit	\$ per 0.25 Acre	\$ per 100' Bed
Cabbage	10,000.00	pounds	\$1.50	\$15,000.00	\$555.56

ANNUAL VARIABLE COST					
Item	Quantity per 0.25 Acre	Unit	\$ per unit	\$ per 0.25 Acre	\$ per 100' Bed
Seeds and Plants					
Seed	6000.00	seeds	0.01	75.00	2.78
Cover crop (winter grain) seeds	14.00	pounds	0.71	10.00	0.37
Fertility and Nutrients					
Compost	3.75	yards	40.00	150.00	5.56
Lime	500.00	pounds	0.10	50.00	1.85
Other Materials					
ВТ				33.00	1.22
Potting mix				40.00	1.48
Trays	60.00	trays	1.20	72.00	2.67
Land Preparation					
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
Planting					
Transplanting ( potting up, moving, transplanting) – regular labour	30	hours	12.00	360.00	13.33
Pest Management					
Weeding – regular labour	20	hours	12.00	240.00	8.89
Spraying BT – regular labour	20	hours	12.00	240.00	8.89
Other Activities					
Irrigating (set up, manage drip) – regular labour	10	hours	12.00	120.00	4.44
Post-Harvest Activities					
Harvesting – regular labour	75	hours	12.00	900.00	33.33
Miscellaneous Expenses					
Repair and maintenance				281.92	10.44
Fuel				13.80	0.51
Interest on working capital				43.60	1.61
Marketing				1,315.97	48.74
		TOTAL LABO	OUR COST	1,890.00	70.00
TOTAL MATERIAL COST			430.00	15.93	
TOTAL MISCELLANEOUS COST			1,655.28	61.31	
TOTAL VARIABLE COST			3,975.27	147.23	

ANNUAL FIXED COST				
Item	\$ per 0.25 Acre	\$ per 100' Bed		
Machinery				
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		
Equipment and tools	62.50	2.31		
Irrigation	327.24	12.12		
Building and shelter	426.28	15.79		
Overhead charges				
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		
TOTAL ANNUAL FIXED COST	2,153.66	79.77		

TOTAL COST	\$ per 0.25	\$ per 100'	
	Acre	Bed	
TOTAL FIXED AND VARIABLE COST	6,128.93	227.00	

NET RETURNS			
Item	\$ per 0.25	\$ per 100'	
item	Acre	Bed	
Return Over Variable Cost	11,024.73	408.32	
Return Over Fixed Cost	12,846.34	475.79	
Return Over Total Cost	8,871.07	328.56	

MACHINERY INFORMATION					
Item	Туре	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	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	

## **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).