



PLANNING FOR PROFIT



BRITISH
COLUMBIA

Ministry of Agriculture,
Food, & Fisheries

TRANSITION TO CERTIFIED ORGANIC MIXED VEGETABLES WINTER 2002 SMALL ACREAGE PRODUCTION

This information is a tool to project costs and returns for B.C. farm enterprises and is a general guide to plan individual farm operations. This sample budget should be used as a guide only. Each farm should develop their own budget to reflect specific production goals, costs and market prices.

Information regarding financial planning and other enterprise budgets may be viewed at the B.C. Ministry of Agriculture, Food and Fisheries website (<http://www.agf.gov.bc.ca/busmgmt/>)

Key Success Factors

- . Effective weed, disease, and insect control, in addition to a well managed fertility program.
- . Adequate labour resources and skill base to implement the necessary pest control and fertility management programs.
- . Good site selection and preparation.
- . Appropriate timing of planting to optimize weed control, avoid adverse weather and ensure high quality & yields.
- . Strong marketing skills. Identify and research your markets prior to planting.
- . Reduce direct and indirect expenses as much as possible.

Market Factors

The market for conventional and certified organic mixed vegetables grown on small acreages is much the same. A majority of the produce is retailed either from the farmgate or at farmers' markets. Wholesale markets for both systems of production are varied. Organic produce can be wholesaled indirectly to organic produce brokers/distributors or directly to local produce stands, restaurants, and so forth. Conventional produce from smaller acreages is most commonly directly wholesaled to local produce stands, restaurants, and so forth, but may also be wholesaled indirectly through licenced Vegetable Marketing Agencies (ie.regulated vegetables).

In southern B.C. (south of the 53rd parallel), certain vegetables are regulated by the B.C. Vegetable Marketing Commission. Growers of regulated vegetables, organic and Conventional, are required to obtain a Producer licence from the Commission and pay fees to the Commission on all wholesaled regulated produce. For conventional growers not wholesaling through an Agency and for all certified organic growers, records of wholesale regulated vegetable sales must be submitted to the B.C. Vegetable Marketing Commission. For conventional growers wholesaling through an Agency, B.C. Vegetable Commission fees will be collected by the Agency, in addition to Agency commission and handling fees. Most small scale conventional growers of regulated vegetables do not wholesale through an Agency, but instead directly wholesale to small produce stands that are not served by an Agency. If selling regulated vegetables from the farmgate or at Farmers' markets, growers must obtain a Producer – Vendor licence in addition to the Producer licence.

Examples of regulated vegetables include: potatoes, carrots (tops off), beets (tops off), green cabbage, red cabbage, parsnips, rutabagas, iceberg lettuce, greenhouse tomatoes, greenhouse butter lettuce, and greenhouse cucumbers. For a complete list of regulated vegetables and up to date information on licencing requirements and fees, growers should contact the B.C. Vegetable Marketing Commission. (see references list at the end of this document).

Risk Factors and Strategies

Production Risks- Disease, weed and insect control along with effective fertility management are essential elements in ensuring high quality and high yields. Weeds and adequate plant nutrition are the primary factors that require additional

attention in certified organic mixed vegetable operations. In many cases, conventional growers on smaller acreages are also challenged by weeds, as herbicide control during the growing season are somewhat limited and many growers prefer tractor cultivation and hand weeding to control weed growth.

- Plant nutrition is managed on conventional operations with green manures and synthetic fertilizers. Plant nutrition on certified organic operations is managed with composts and green manures from rotation crops and cover crops. Rotation crops (eg.legumes) also help to suppress weeds and break weed cycles, depending on the timing of planting.

- Weather and climate are risk factors that affect all growers of mixed vegetables. Growers need to make variety selections that are suited to their particular growing conditions and weather patterns.

- Growing a variety of crops helps to offset the production risks, as it is very unusual to have crop failures in all crops grown on a mixed vegetable farm, whether it be conventional or certified organic.

Handling Risks - Ensure all crops are properly harvested, packaged,stored and shipped. Improper handling will reduce the amount of your marketable product. This holds true for both conventional and organic production.

Price Risks -Depending upon your target market, competition from direct marketers or wholesale distributors is a constant factor. Adjustments in your production or marketing plans may be required. Providing a consistent and high quality product and ensuring your customer needs are met are vital elements in offsetting adverse effects of a competitive

market place. Price risks are generally about the same for conventional and organic growers on smaller acreages.

Market Risks - This will depend upon your marketing strategy. Direct consumer marketing has different risks than wholesale marketing. In both cases ensure the commodity mix you grow has a high demand and be aware of other new or existing producers that may impact the market. Tailor your crop decisions according to what your market will bear. Wholesale markets for certified organic produce generally provide better price returns than wholesale market for conventional produce, due to the factors of supply and demand. Retail markets (farmers' markets and farmgate) generally yield about the same or 10 to 15% higher returns for vegetables.

SAMPLE ENTERPRISE BUDGET AND WORKSHEET

4.75 ACRES OF MIXED VEGETABLE CROPS

The sample enterprise budget provided should be viewed as a first approximation only. Use the column "your farm" to add, delete and adjust items to reflect your specific production situation.

Projected Income

	Conventional	.....	Transition	.....	.....Certified Organic.....			Your Farm
Income	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	
Sweet corn(2 acre)	\$5,850	\$4,388	\$5,265	\$5,850	\$5,963	\$5,963	\$5,963	
Carrots (1 acres)	\$15,750	\$11,813	\$14,175	\$15,750	\$16,200	\$16,200	\$16,200	
Winter Squash (0.5acre)	\$1,813	\$1,359	\$1,631	\$1,813	\$1,875	\$1,875	\$1,875	
Spinach(0.5acre)	\$8,750	\$6,563	\$7,875	\$8,750	\$9,000	\$9,000	\$9,000	
Salad Greens(0.25acre)	\$10,500	\$7,875	\$9,450	\$10,500	\$10,800	\$10,800	\$10,800	
Cauliflower (0.5acre))	\$6,300	\$4,725	\$5,670	\$6,300	\$6,480	\$6,480	\$6,480	
Total	\$48,963	\$36,722	\$44,066	\$48,963	\$50,318	\$50,318	\$50,318	

Projected Direct Expenses

	Conventional	.....	Transition	.....	.....Certified Organic.....			Your Farm
Direct Expenses	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	
Labour								
.weeding	\$672	\$672	\$672	\$672	\$672	\$672	\$672	
.all harvest labour	\$5,296	\$4,172	\$4,846	\$5,296	\$5,296	\$5,296	\$5,296	
.*farmers' market sales	2496	2496	2496	2496	2496	2496	2496	
.wages less WCB/benefit	\$8,464	\$7,340	\$8,014	\$8,464	\$8,464	\$8,464	\$8,464	
.*WCB & benefits	\$1,220	\$1,058	\$1,156	\$1,220	\$1,220	\$1,220	\$1,220	
.*pest monitoring	375	375	375	375	375	375	375	
<i>Total labour costs</i>	\$10,059	\$8,773	\$9,545	\$10,059	\$10,059	\$10,059	\$10,059	
Seeds								
.Vegetable seed	\$529	\$529	\$529	\$529	\$529	\$529	\$529	
.Fall rye seed	\$98	\$147	\$147	\$147	\$147	\$147	\$147	
Fertilizer								
.14-16-10(carrots)	\$22							
.11-52-0(cover crop)	\$63							
.34-0-0(cover crop, corn, c	\$102							
.0-0-60(cover crop)	\$42							
.compost		\$493	\$493	\$493	\$493	\$493	\$493	
Pesticides								
.Dipel 2X(cauliflower)	\$19	\$19	\$19	\$19	\$19	\$19	\$19	
Tractor Fuel	\$806	\$723	\$785	\$826	\$826	\$826	\$826	
Tractor Oil & lube	\$120.90	\$108.49	\$117.74	\$123.90	\$123.90	\$123.90	\$123.90	
Packaging								
.Bags-large t shirt	\$125	\$94	\$112	\$125	\$125	\$125	\$126	
.Bags-small	\$286	\$215	\$258	\$286	\$286	\$286	\$286	

Direct Expenses (cont.)	Conventiona	Transition			Certified Organic			Your Farm
	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	
*Marketing								
.market rental fees	\$350	\$350	\$350	\$350	\$350	\$350	\$350	
.truck fuel	1170	1170	1170	1170	1170	1170	1170	
.truck oil & lube	\$176	\$176	\$176	\$176	\$176	\$176	\$176	
.advertising	\$100	\$100	\$100	\$100	\$100	\$100	\$100	
.Commission fees	\$11	\$8	\$9	\$11	\$11	\$11	\$11	
.BC Ag.Council fees	\$0.21	\$0.15	\$0.19	\$0.21	\$0.21	\$0.21	\$0.21	
.BC Veg.Com.licences	\$125.00	\$125.00	\$125.00	\$125.00	\$125.00	\$125.00	\$125.00	
*Repair&Maintenance	\$3,677	\$3,827	\$3,827	\$3,827	\$3,827	\$3,827	\$0	
*Irrigation	\$550	\$550	\$550	\$550	\$550	\$550	\$550	
*Certification fees		\$200	\$200	\$200	\$200	\$200	\$200	
TOTAL	\$18,430	\$17,407	\$18,312	\$18,916	\$18,916	\$18,916	\$15,091	

Income less Direct Exp	\$30,533	\$19,315	\$25,754	\$30,046	\$31,401	\$31,401	\$35,227	
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* inputs are for the total farm/production area and are not crop specific

Projected Indirect Expenses

Depreciation	.....	_____
Interest	.....	_____
Insurance	.....	_____
Administration	.....	_____
Legal/accounting	.....	_____
Other	.....	_____
Total		=====

Indirect expenses do not vary with the level of output and are typically associated with inputs used in more than one enterprise and must be allocated appropriately (prorated) between uses.

Projected Net Income

Projected Income	.....	_____
<i>minus</i> Projected Direct AND Indirect Expenses	.....	=====
	Projected Net Income	_____

Individual Crop Budgets and Worksheets

The following income and direct expense information does not account for general farm inputs that are applied to the total farm area (eg. general labour costs; general marketing costs; irrigation fees; repair&maintenance.)

1. Cover Crop (4.75 acres)

Income	Conventional	Transition			Certified Organic			Your Farm
	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	
<i>Total Income</i>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	

Direct Expenses	Conventional	Transition			Certified Organic			Your Farm
	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	
. fall rye seed	\$98	\$147	\$147	\$147	\$147	\$147	\$147	
. fertilizer								
11-52-0	\$63							
34-0-0	\$50							
0-0-60	\$42							
.fuel	\$111	\$111	\$111	\$111	\$111	\$111	\$111	
.oil & lube	\$17	\$17	\$17	\$17	\$17	\$17	\$17	
<i>Total direct expenses</i>	\$380	\$275	\$275	\$275	\$275	\$275	\$275	
Income less Direct Expense	-\$380	-\$275	-\$275	-\$275	-\$275	-\$275	-\$275	

2. Sweet Corn (2 acres)

Income	Conventional	Transition			Certified Organic			Your Farm
	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	
.retail(doz)	1350	1013	1215	1350	1350	1350	1350	
.retail(\$/doz)	\$3.50	\$3.50	\$3.50	\$3.50	\$3.50	\$3.50	4	
.direct wholesale(doz)	450	338	405	450			0	
.direct wholesale(\$/doz)	\$2.50	\$2.50	\$2.50	\$2.50			\$0.00	
.indirect wholesale(doz)					450	450	450	
.indirect wholesale(\$/doz)					\$2.75	\$2.75	\$2.75	
<i>Total Income</i>	\$5,850.00	\$4,387.50	\$5,265.00	\$5,850.00	\$5,962.50	\$5,962.50	\$5,962.50	

Direct Expenses	Conventional	Transition			Certified Organic			Your Farm
	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	
.seeds	\$187	\$187	\$187	\$187	\$187	\$187	\$187	
.fertilizer(34-0-0)	\$42							
.compost		\$408	\$408	\$408	\$408	\$408	\$408	
.labour								
weeding	\$320	\$320	\$320	\$320	\$320	\$320	\$320	
picking(50% of total)	\$144	\$108	\$130	\$144	\$144	\$144	\$144	
. Bags(large t-shirt)	\$58	\$43	\$52	\$58	\$58	\$58	\$58	
.fuel	\$62	\$69	\$74	\$78	\$78	\$78	\$78	
.oil & lube	\$9	\$10	\$11	\$12	\$12	\$12	\$12	
<i>Total direct expenses</i>	\$822	\$1,146	\$1,182	\$1,207	\$1,207	\$1,207	\$1,207	
Income less Direct Expense	\$5,028	\$3,242	\$4,083	\$4,644	\$4,756	\$4,756	\$4,756	

2. Carrots (1 acre)

Income	Conventional	Transition			Certified Organic			Your Farm
	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	
.retail(lbs)	22500	16875	20250	22500	22500	22500	22500	
.retail(\$/lb)	\$0.60	\$0.60	\$0.60	\$0.60	\$0.60	\$0.60	\$0.60	
.direct wholesale(lbs)	7500	5625	6750	7500				
.direct wholesale(\$/lb)	\$0.30	\$0.30	\$0.30	\$0.30				
.indirect wholesale(lbs)					7500	7500	7500	
.indirect wholesale(\$/lb)					\$0.36	\$0.36	\$0.36	
Total Income	\$15,750	\$11,813	\$14,175	\$15,750	\$16,200	\$16,200	\$16,200	

Direct Expenses	Conventional	Transition			Certified Organic			Your Farm
	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	
.seeds	\$43	\$43	\$43	\$43	\$43	\$43	\$43	
.fertilizer(34-0-0)	\$22							
.compost		\$34	\$34	\$34	\$34	\$34	\$34	
.labour								
weeding	\$160	\$160	\$160	\$160	\$160	\$160	\$160	
pick/wash(50% of total)	\$1,500	\$1,125	\$1,350	\$1,500	\$1,500	\$1,500	\$1,500	
bag (50% of total)	\$960	\$720	\$864	\$960	\$960	\$960	\$960	
. Bags	\$101	\$76	\$91	\$101	\$101	\$101	\$101	
.fuel	\$399	\$307	\$364	\$401	\$401	\$401	\$401	
.oil & lube	\$60	\$46	\$55	\$60	\$60	\$60	\$60	
.BCVeg.Commission fees	\$11	\$8	\$9	\$11	\$11	\$11	\$11	
.BCAg.Council fees	\$0.21	\$0.15	\$0.19	\$0.21	\$0.21	\$0.21	\$0.21	
.BCVeg.Com. Licences	\$125.00	\$125.00	\$125.00	\$125.00	\$125.00	\$125.00	\$125.00	
Total direct expenses	\$3,380	\$2,644	\$3,094	\$3,394	\$3,394	\$3,394	\$3,394	
Income less Direct Expenses	\$12,370	\$9,169	\$11,081	\$12,356	\$12,806	\$12,806	\$12,806	

3. Winter Squash (0.5 acre)

Income	Conventional	Transition			Certified Organic			Your Farm
	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	
.retail(lbs)	3750	2813	3375	3750	3750	3750	3750	
.retail(\$/lb)	\$0.40	\$0.40	\$0.40	\$0.40	\$0.40	\$0.40	\$0.40	
.direct wholesale(lbs)	1250	938	1125	1250				
.direct wholesale(\$/lb)	\$0.25	\$0.25	\$0.25	\$0.25				
.indirect wholesale(lbs)					1250	1250	1250	
.indirect wholesale(\$/lb)					\$0.30	\$0.30	\$0.30	
Total Income	\$1,813	\$1,359	\$1,631	\$1,813	\$1,875	\$1,875	\$1,875	

Direct Expenses	Conventional	Transition			Certified Organic			Your Farm
	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	
.seeds	\$67	\$67	\$67	\$67	\$67	\$67	\$67	
.compost		\$17	\$17	\$17	\$17	\$17	\$17	
.labour								
weeding	\$80	\$80	\$80	\$80	\$80	\$80	\$80	
picking(50% of total)	\$25	\$19	\$23	\$25	\$25	\$25	\$25	
. Bags(large t-shirt)	\$16	\$12	\$14	\$16	\$16	\$16	\$17	
.fuel	\$12	\$12	\$13	\$13	\$13	\$13	\$13	
.oil & lube	\$2	\$2	\$2	\$2	\$2	\$2	\$2	
Total direct expenses	\$202	\$209	\$216	\$221	\$221	\$221	\$221	
Income less Direct Expenses	\$1,610	\$1,151	\$1,415	\$1,592	\$1,654	\$1,654	\$1,654	

4. Spinach (0.5 acre)

Income	Conventional	Transition			Certified Organic			Your Farm
	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	
.retail(lbs)	3750	2813	3375	3750	3750	3750	3750	
.retail(\$/lb)	\$2.00	\$2.00	\$2.00	\$2.00	\$2.00	\$2.00	\$2.00	
.direct wholesale(lbs)	1250	938	1125	1250				
.direct wholesale(\$/lb)	\$1.00	\$1.00	\$1.00	\$1.00				
.indirect wholesale(lbs)					1250	1250	1250	
.indirect wholesale(\$/lb)					\$1.20	\$1.20	\$1.20	
Total Income	\$8,750	\$6,563	\$7,875	\$8,750	\$9,000	\$9,000	\$9,000	

Direct Expenses	Conventional	Transition			Certified Organic			Your Farm
	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	
.seeds	\$6	\$6	\$6	\$6	\$6	\$6	\$6	
.compost	\$0							
.labour								
weeding	\$32	\$32	\$32	\$32	\$32	\$32	\$32	
pick/wash/bag(50% of t	\$667	\$500	\$600	\$667	\$667	\$667	\$667	
. Bags	\$84	\$63	\$76	\$84	\$84	\$84	\$84	
.fuel	\$6	\$6	\$6	\$6	\$6	\$6	\$6	
.oil & lube	\$1	\$1	\$1	\$1	\$1	\$1	\$1	
Total direct expenses	\$796	\$608	\$721	\$796	\$796	\$796	\$796	
Income less Direct Expe	\$7,954	\$5,954	\$7,154	\$7,954	\$8,204	\$8,204	\$8,204	

5. Salad Greens (0.25acre)

Income	Conventional	Transition			Certified Organic			Your Farm
	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	
.retail(lbs)	2250	1688	2025	2250	2250	2250	2250	
.retail(\$/lb)	\$4.00	\$4.00	\$4.00	\$4.00	\$4.00	\$4.00	\$4.00	
.direct wholesale(lbs)	750	563	675	750				
.direct wholesale(\$/lb)	\$2.00	\$2.00	\$2.00	\$2.00				
.indirect wholesale(lbs)					750	750	750	
.indirect wholesale(\$/lb)					\$2.40	\$2.40	\$2.40	
Total Income	\$10,500	\$7,875	\$9,450	\$10,500	\$10,800	\$10,800	\$10,800	

Direct Expenses	Conventional	Transition			Certified Organic			Your Farm
	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	
.seeds	\$174	\$174	\$174	\$174	\$174	\$174	\$174	
.compost	\$0							
.labour								
weeding	\$16	\$16	\$16	\$16	\$16	\$16	\$16	
pick/wash/bag(50% of t	\$1,200	\$900	\$1,080	\$1,200	\$1,200	\$1,200	\$1,200	
. Bags	\$101	\$76	\$91	\$101	\$101	\$101	\$101	
.fuel	\$2	\$2	\$2	\$2	\$2	\$2	\$2	
.oil & lube	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Total direct expenses	\$1,494	\$1,169	\$1,364	\$1,494	\$1,494	\$1,494	\$1,494	
Income less Direct Expe	\$9,006	\$6,706	\$8,086	\$9,006	\$9,306	\$9,306	\$9,306	

6. Cauliflower - late season (0.5acre)

Income	Conventional	.....	Transition	.....	.....Certified Organic.....			Your Farm
	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	
.retail(heads)	3600	2700	3240	3600	3600	3600	3600	
.retail(\$/heads)	\$1.50	\$1.50	\$1.50	\$1.50	\$1.50	\$1.50	\$1.50	
.direct wholesale(heads)	1200	900	1080	1200				
.direct wholesale(\$/head)	\$0.75	\$0.75	\$0.75	\$0.75				
.indirect wholesale(heads)					1200	1200	1200	
.indirect wholesale(\$/head)					\$0.90	\$0.90	\$0.90	
Total Income	\$6,300	\$4,725	\$5,670	\$6,300	\$6,480	\$6,480	\$6,480	

Direct Expenses	Conventional	.....	Transition	.....	.....Certified Organic.....			Your Farm
	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	
.seeds	\$52	\$52	\$52	\$52	\$52	\$52	\$52	
.fertilizer	\$11							
.compost		\$34	\$34	\$34	\$34	\$34	\$34	
.Dipel 2X (kg)	\$19	\$19	\$19	\$19	\$19	\$19	\$19	
.labour								
transplant(50% of total)	\$32							
weeding	\$64	\$64	\$64	\$64	\$64	\$64	\$64	
picking(50% of total)	\$800	\$800	\$800	\$800	\$800	\$800	\$800	
. Bags(large t-shirt)	\$51	\$38	\$46	\$51	\$51	\$51	\$51	
.fuel	\$226	\$228	\$228	\$228	\$228	\$228	\$228	
.oil & lube	\$34	\$34	\$34	\$34	\$34	\$34	\$34	
Total direct expenses	\$1,288	\$1,269	\$1,277	\$1,282	\$1,282	\$1,282	\$1,282	
Income less Direct Expense	\$5,012	\$3,456	\$4,393	\$5,018	\$5,198	\$5,198	\$5,198	

Sensitivity Analyses of Total Production Income Margir

Profitability is strongly influenced by market prices and yield. The tables below illustrate the changes the income margin (*income less direct expenses*) as prices and yield vary.

Conventional

Price vs. Income less Direct Expense	80% of Target Price	90% of Target Price	Target Price	110% of Target Price	120% of Target Price
Income less Direct Expense:	\$20,740	\$25,637	\$30,533	\$35,429	\$40,325

Yield vs. Income less Direct Expense	75% of Target Yield	85% of Target Yield	Target Yield	115% of Target Yield	125% of Target Yield
Income less Direct Expense:	\$24,046	24,046	30,533	37,020	41,344

Certified Organic

Price vs. Income less Direct Expense	80% of Target Price	90% of Target Price	Target Price	110% of Target Price	120% of Target Price
Income less Direct Expense:	\$21,338	\$26,369	\$31,401	\$38,949	\$43,981

Yield vs. Income less Direct Expense	75% of Target Yield	85% of Target Yield	Target Yield	115% of Target Yield	125% of Target Yield
Income less Direct Expense:	20,251	24,711	31,401	38,091	42,551

Sensitivity Analyses of Individual Crop Income Margin:

1. Sweet Corn (2 acres)

a. Conventional Production

Price vs. Income less Direct Expense	80% of Target Price	90% of Target Price	Target Price	110% of Target Price	120% of Target Price
.Retail (\$/doz)	\$2.80	\$3.15	\$3.50	\$3.85	\$4.20
.Direct Wholesale (\$/doz)	\$2.00	\$2.25	\$2.50	\$2.75	\$3.00
Income less Direct Expenses	\$3,858	\$4,443	\$5,028	\$5,613	\$6,198

Yield vs. Income less Direct Expense	75% of Target Yield	85% of Target Yield	Target Yield	115% of Target Yield	125% of Target Yield
.Retail (doz)	1013	1148	1350	1553	1688
.Direct Wholesale (doz)	338	383	450	518	563
Income less Direct Expenses	\$3,616	\$4,181	\$5,028	\$5,875	\$6,440

b. Certified Organic Production

Price vs. Income less Direct Expense	80% of Target Price	90% of Target Price	Target Price	110% of Target Price	120% of Target Price
.Retail (\$/doz)	\$2.80	\$3.15	\$3.50	\$3.85	\$4.20
.Indirect Wholesale (\$/doz)	\$2.20	\$2.48	\$2.75	\$3.03	\$3.30
Income less Direct Expenses	\$3,564	\$4,160	\$4,756	\$5,352	\$5,949

Yield vs. Income less Direct Expense	75% of Target Yield	85% of Target Yield	Target Yield	115% of Target Yield	125% of Target Yield
.Retail (doz)	1013	1148	1350	1553	1688
.Indirect Wholesale (doz)	338	383	450	518	563
Income less Direct Expenses	\$3,316	\$3,892	\$4,756	\$5,620	\$6,196

2. Carrots (0.5 acres)

a. Conventional

Price vs. Income less Direct Expenses	80% of Target Price	90% of Target Price	Target Price	110% of Target Price	120% of Target Price
.Retail (\$/lb)	\$0.48	\$0.54	\$0.60	\$0.66	\$0.72
.Direct Wholesale (\$/lb)	\$0.24	\$0.27	\$0.30	\$0.33	\$0.36
Income less Direct Expenses	\$9,220	\$10,795	\$12,370	\$13,945	\$15,520

Yield vs. Income less Direct Expenses	75% of Target Yield	85% of Target Yield	Target Yield	115% of Target Yield	125% of Target Yield
.Retail (lbs)	16875	19125	22500	25875	28125
.Direct Wholesale (lbs)	5625	6375	7500	8625	9375
Income less Direct Expenses	\$9,073	\$10,392	\$12,370	\$14,349	\$15,668

b. Certified Organic Production

Price vs. Income less Direct Expenses	80% of Target Price	90% of Target Price	Target Price	110% of Target Price	120% of Target Price
.Retail (\$/lb)	\$0.48	\$0.54	\$0.60	\$0.66	\$0.72
.Indirect Wholesale (\$/lb)	\$0.29	\$0.32	\$0.36	\$0.40	\$0.43
Income less Direct Expenses	\$9,566	\$11,186	\$12,806	\$14,426	\$16,046

Yield vs. Income less Direct Expenses	75% of Target Yield	85% of Target Yield	Target Yield	115% of Target Yield	125% of Target Yield
.Retail (lbs)	16875	19125	22500	25875	28125
.Indirect Wholesale (lbs)	5625	6375	7500	8625	9375
Income less Direct Expenses	\$9,396	\$10,760	\$12,806	\$14,851	\$16,215

3. Winter Squash (0.5 acres)

a. Conventional

Price vs. Income less Direct Expenses	80% of Target Price	90% of Target Price	Target Price	110% of Target Price	120% of Target Price
.Retail (\$/lb)	\$0.32	\$0.36	\$0.40	\$0.44	\$0.48
.Direct Wholesale (\$/lb)	\$0.20	\$0.23	\$0.25	\$0.28	\$0.30
Income less Direct Expenses	\$1,248	\$1,429	\$1,610	\$1,791	\$1,973

Yield vs. Income less Direct Expenses	75% of Target Yield	85% of Target Yield	Target Yield	115% of Target Yield	125% of Target Yield
.Retail (lbs)	2813	3188	3750	4313	4688
.Direct Wholesale (lbs)	938	1063	1250	1438	1563
Income less Direct Expenses	\$1,167	\$1,344	\$1,610	\$1,876	\$2,053

b. Certified Organic Production

Price vs. Income less Direct Expense	80% of Target Price	90% of Target Price	Target Price	110% of Target Price	120% of Target Price
.Retail (\$/lb)	\$0.32	\$0.36	\$0.40	\$0.44	\$0.48
.Indirect Wholesale (\$/lb)	\$0.24	\$0.27	\$0.30	\$0.33	\$0.36
Income less Direct Expenses	\$1,279	\$1,467	\$1,654	\$1,842	\$2,123

Yield vs. Income less Direct Expense	75% of Target Yield	85% of Target Yield	Target Yield	115% of Target Yield	125% of Target Yield
.Retail (lbs)	2813	3188	3750	4313	4688
.Indirect Wholesale (lbs)	938	1063	1250	1438	1563
Income less Direct Expenses	\$1,196	\$1,379	\$1,654	\$1,930	\$2,113

4. Spinach (0.5 acres)**Conventional**

Price vs. Income less Direct Expense	80% of Target Price	90% of Target Price	Target Price	110% of Target Price	120% of Target Price
.Retail (\$/lb)	\$1.60	\$1.80	\$2.00	\$2.20	\$2.40
.Direct Wholesale (\$/lb)	\$0.80	\$0.90	\$1.00	\$1.10	\$1.20
Income less Direct Expenses	\$6,204	\$7,079	\$7,954	\$8,829	\$9,704

Yield vs. Income less Direct Expense	75% of Target Yield	85% of Target Yield	Target Yield	115% of Target Yield	125% of Target Yield
.Retail (lbs)	2813	3188	3750	4313	4688
.Direct Wholesale (lbs)	938	1063	1250	1438	1563
Income less Direct Expenses	\$5,954	\$6,754	\$7,954	\$9,154	\$9,954

Certified Organic

Price vs. Income less Direct Expense	80% of Target Price	90% of Target Price	Target Price	110% of Target Price	120% of Target Price
.Retail (\$/lb)	\$1.60	\$1.80	\$2.00	\$2.20	\$2.40
.Indirect Wholesale (\$/lb)	\$0.96	\$1.08	\$1.20	\$1.32	\$1.44
Income less Direct Expenses	\$6,404	\$7,079	\$8,204	\$9,104	\$10,004

Yield vs. Income less Direct Expense	75% of Target Yield	85% of Target Yield	Target Yield	115% of Target Yield	125% of Target Yield
.Retail (lbs)	2813	3188	3750	4313	4688
.Indirect Wholesale (lbs)	938	1063	1250	1438	1563
Income less Direct Expenses	\$6,066	\$6,966	\$8,204	\$9,441	\$10,266

5. Salad Greens

Conventional

Price vs. Income less Direct Expenses	80% of Target Price	90% of Target Price	Target Price	110% of Target Price	120% of Target Price
.Retail (\$/lb)	\$3.20	\$3.60	\$4.00	\$4.40	\$4.80
.Direct Wholesale (\$/lb)	\$1.60	\$1.80	\$2.00	\$2.20	\$2.40
Income less Direct Expenses	\$6,906	\$7,956	\$9,006	\$10,056	\$11,106

Yield vs. Income less Direct Expenses	75% of Target Yield	85% of Target Yield	Target Yield	115% of Target Yield	125% of Target Yield
.Retail (lbs)	1688	1913	2250	2588	2813
.Direct Wholesale (lbs)	563	638	750	863	938
Income less Direct Expenses	\$6,706	\$7,626	\$9,006	\$10,386	\$11,306

Certified Organic

Price vs. Income less Direct Expenses	80% of Target Price	90% of Target Price	Target Price	110% of Target Price	120% of Target Price
.Retail (\$/lb)	\$3.20	\$3.60	\$4.00	\$4.40	\$4.80
.Indirect Wholesale (\$/lb)	\$1.92	\$2.16	\$2.40	\$2.64	\$2.88
Income less Direct Expenses	\$7,146	\$8,226	\$9,306	\$10,386	\$11,466

Yield vs. Income less Direct Expenses	75% of Target Yield	85% of Target Yield	Target Yield	115% of Target Yield	125% of Target Yield
.Retail (lbs)	2813	3188	3750	4313	4688
.Indirect Wholesale (lbs)	938	1063	1250	1438	1563
Income less Direct Expenses	\$6,801	\$7,881	\$9,306	\$10,731	\$11,681

6. Cauliflower

Conventional

Price vs. Income less Direct Expenses	80% of Target Price	90% of Target Price	Target Price	110% of Target Price	120% of Target Price
.Retail (\$/head)	\$1.20	\$1.35	\$1.50	\$1.65	\$1.80
.Direct Wholesale (\$/head)	\$0.60	\$0.68	\$0.75	\$0.83	\$0.90
Income less Direct Expenses	\$3,752	\$4,382	\$5,012	\$5,642	\$6,272

Yield vs. Income less Direct Expenses	75% of Target Yield	85% of Target Yield	Target Yield	115% of Target Yield	125% of Target Yield
.Retail (heads)	2700	3060	3600	4140	4500
.Direct Wholesale (heads)	900	1020	1200	1380	1500
Income less Direct Expenses	\$3,650	\$4,195	\$5,012	\$5,829	\$6,374

Certified Organic

Price vs. Income less Direct Expense	80% of Target Price	90% of Target Price	Target Price	110% of Target Price	120% of Target Price
.Retail (\$/head)	\$1.20	\$1.35	\$1.50	\$1.65	\$1.80
.Indirect Wholesale (\$/head)	\$0.72	\$0.81	\$0.90	\$0.99	\$1.08
Income less Direct Expenses	\$3,902	\$4,550	\$5,198	\$5,846	\$6,494

Yield vs. Income less Direct Expense	75% of Target Yield	85% of Target Yield	Target Yield	115% of Target Yield	125% of Target Yield
.Retail (heads)	2700	3060	3600	4140	4500
.Indirect Wholesale (heads)	900	1020	1200	1380	1500
Income less Direct Expenses	\$2,171	\$4,354	\$5,198	\$6,042	\$6,605

Cash Flow Timing

The table below indicates the monthly flow of income and indirect expenses. It is assumed that crops are sold from the farm with limited storage (ie. less than 7 days). A complete projected cash flow should include indirect expenses, capital sales and purchases, loans and personal expenses.

Conventional

	J	F	M	A	M	J	J	A	S	O	N	D
% Income	0	0	0	0	18	18	5	24	15	20	0	0
% Direct Expenses	0	4	4	1	17	13	10	16	14	17	0	4

Certified Organic

	J	F	M	A	M	J	J	A	S	O	N	D
% Income	0	0	0	0	18	18	5	24	15	20	0	0
% Direct Expenses	0	4	4	4	16	13	10	16	12	17	0	4

Hours Labour Required for Total Production Area

Conventional

Operator labour	Corn	Carrots	Squash	Spinach	Greens	Cauliflower	Overhead Labour	Total Labour
Plant/propagate crops	2	8	2	4	4	20		40
Cover crop								0
.Field Prep. spring&fall							23	23
.broadcast/disc seed							4.75	5
								0
Transplanting						4		4
Cultivating crops	4.5	6	1.5	1.5	0.5	1		15
Spraying						1.5		2
Picking or pick/wash/bag	18	307.5	3.125	83.3	75	100		587
Farmers' Market sales							624	624
Wholesale sales							104	104
Irrigating crops							112	112
General Maintenance							260	260
Total operator	24.5	321.5	6.6	88.8	79.5	126.5	1127.8	1775
Hired labour	Corn	Carrots	Squash	Spinach	Greens	Cauliflower	Overhead Labour	Total Labour
Transplanting				6				6
Weeding	40	20	10	4	2	8		84
Picking or pick/wash/bag	18	307.5	3.125	83.3	75	100		587
Farmers' Market sales							312	312
Total hired	58.0	327.5	13.1	93.3	77.0	108.0	312.0	989
Total labour	82.5	649.0	19.8	182.2	156.5	234.5	1439.8	2764

Certified Organic

Operator labour	Corn	Carrots	Squash	Spinach	Greens	Cauliflower	Overhead Labour	Total Labour
Plant/propagate crops	2	8	2	4	4	20		40
Cover crop								0
.Field Prep. spring&fall							23	23
.broadcast/disc seed							4.75	5
Compost applicator	4	0.5	0.25			0.5		5
Transplanting						2 x 4		0
Cultivating crops	4.5	6	1.5	1.5	0.5	1		15
Spraying						1.5		2
Picking or pick/wash/bag	18	307.5	6.25	83.3	75	100		590
Farmers' Market sales							624	624
Wholesale sales							104	104
Irrigating crops							112	112
General Maintenance							260	260
Total operator	28.5	322.0	10.0	88.8	79.5	123.0	1127.8	1780
Hired labour	Corn	Carrots	Squash	Spinach	Greens	Cauliflower	Overhead Labour	Total Labour
Transplanting								0
Weeding	40	20	10	4	2	8		84
Picking or pick/wash/bag	18	307.5	3.125	83.3	75	100		587
Farmers' Market sales							312	312
Total hired	58.0	327.5	13.1	87.3	77.0	108.0	312.0	983
Total labour	86.5	649.5	23.1	176.2	156.5	231.0	1439.8	2763

Investment Capital Replacement Costs

Item	Conventional	Cert.Organic	Net Change*
Buildings	\$50,000	\$50,000	\$0
Tractor	\$15,000	\$15,000	\$0
Implements			
..... Tillers	\$8,000	\$8,000	\$0
..... Mower	\$2,000	\$2,000	\$0
..... Sprayer	\$2,000	\$2,000	\$0
Fertilizer Spreader	\$2,500	\$2,500	\$0
Compost Spreader		\$5,000	\$5,000
Rototiller	\$500	\$500	\$0
Planters(corn/Earthway™)	\$150	\$150	\$0
Washing equipment	\$4,000	\$4,000	\$0
Bins/totes etc.	\$750	\$750	\$0
Hand trucks/dolleys	\$250	\$250	\$0
Canopies	\$600	\$600	\$0
Tables,scales,display equ	\$800	\$800	\$0
Vehicles(truck/trailer)	\$15,000	\$15,000	\$0
Small Tools & Equipment	\$5,000	\$5,000	\$0
Cooler	\$10,000	\$10,000	\$0
Irrigation System	\$6,000	\$6,000	\$0
Total	\$122,550	\$127,550	\$5,000

*change in investment capital between conventional and organic production

Conventional vs. Certified Organic Mixed Vegetable Production Factors Affecting Production Costs

1. Labour: Labour requirements for both methods of production are assumed as being similar in this sample budget. Additional labour is needed for compost application, but all other tasks are assumed the same. On small acre conventional vegetable farms where herbicides are used, less labour for hand weeding will be required.

2. Certification fees: To maintain certified organic status, a farm must be registered with a certified organic or recognized association and have semi-annual inspections completed of all farming practices. The fee rates vary widely from farm to farm and depend on the certifying body, the level of production, and the time required to complete inspections.

3. Land Needs: The total land required to produce mixed vegetables is higher for certified organic operations than for conventional operations due to the need for rotation crops and buffer zones. Rotation crops are needed for pest and soil fertility management. Buffer zones are required if there is a concern that contamination from adjacent farmlands, and so forth, can occur.

References:

- COABC.2001. B.C. Certified Organic Production Operation Policies and Farm Management Standards (<http://www.certifiedorganic.bc.ca/Standards>)
- Environment Canada and Manitoba Agriculture. October 1992, Getting Started in Organic Farming (<http://www.gks.com/library>)
- BCMAFF Vegetable Production Guide - for commercial growers
- Oregon State University. Commercial Vegetable Production Guides. North Willamette Research & Extension (<http://www.orst.edu/Dept/NWREC>)
- BCMAFF. Planning for Profit Budgets. (<http://www.FBMInet.ca/bc>)
- B.C. Vegetable Marketing Commission. 201-7560 Vantage Way, Delta, B.C. V4G 1H1. (604) 940-0188. (<http://www.bcveg.com>)
- Certified Organic Associations of B.C. #8A - 100 Kalamalka Lake Rd., Vernon, B.C. V1T 9G1. Tel:(250)260-4429. email: coabc@bcgrizzly.com
- BC certified organic industry information available at www.certifiedorganic.bc.ca

Contributors:

The following people contributed to the preparation of this factsheet:

- Irene Bevandick, P.Ag., contractor, Kelowna (*producer interviews, compile financial data, market factors, risks*)
- Howard Joynt, P.Ag., BCMAFF, Vernon (review contractor information - drafts & final document).
- Rochelle Eisen, RARE enterprises, Summerland, B.C. (editorial comments and final edit).
- B.C. Vegetable Marketing Commission (regulated vegetable licencing/fees, etc.)
- Vegetable growers

ASSUMPTIONS

The following assumptions were made in calculating the sample budget:

General Farm Assumptions

1. Income & Expenses:

- Projected income and expenses are based on 4.75 acres of vegetable production from 10acre total farm area

2. Planting Information:

- Crops grown: 2 acres sweet corn; 1acre carrots; 0.5acre winter squash; 0.5 acre spinach; 0.25 acre salad greens; 0.5 acre cauliflower;
- Planting equipment: single row, push-type "Earthway TM" precision seeder for spinach, salad greens and carrots; 2-row tractor pulled planter for corn; tractor pulled transplanter for cauliflower transplants;
- .Fertilizer is applied during cultivation (ie.banding equipment attached to cultivator) for sweet corn, carrots, squash and cauliflower.
- A cover crop (fall rye) is planted in the fall (September) after harvest of annual crops - Crop residues are worked into the soil and the land is prepared for seeding - For organic production, compost is applied and incorporated prior to seeding - For conventional production fertilizer is broadcasted with the seed using a fertilizer spreader - The seed is then lightly disced into the soil - In the spring the cover crop is worked back into the soil and the land is prepared for planting -

3. Marketing Information:

a. Market: 75% direct to the consumer retail sales (ie. farmers market) and 25% is wholesaled. Conventional growers and growers in transition wholesale directly to produce stores/fruit stands while certified organic growers wholesale indirectly to produce brokers. Farmers' market rental fees for 3 days are \$350 per season.

b. Returns: Retail prices ("direct to consumer") of ready-picked produce are assumed the same for conventional, transition, and certified organic crops. Wholesale prices for conventional and transition crops are assumed about 50% of the retail conventional prices. Wholesale prices for certified organic produce are assumed at 10 to 20% higher than wholesale conventional prices.

Conventional and certified organic yields are assumed to be the same for all crops. Yields during transition are assumed at 75%, 90% and 100% of conventional and certified organic yields. These are rough estimates and may vary according to grower skills/experience; weed, disease and insect pressure; previous growing practices; weather and climate conditions; etc.

c. Marketing Fuel Costs:

The fuel costs assumed to get produce to markets are estimated at $\underline{75L/wk \times 26 \text{ wks} \times \$0.60/L}$

4. Labour requirements:

.It is assumed that all retail sales are completed at 3 farmers' markets/week for 26wks - The labour needed for farmers' market sales is for one operator and one part-time(half-time) helper and calculated as $1.5 \times 8 \text{ hrs/day} \times 3 \text{ days/wk} \times 26 \text{ wks}$.

- Labour requirements for all wholesale sales is assumed at 4hrs/week x 26weeks.
- Labour requirements (operator) for irrigating calculated at 2hrs/day x 7days/wk x 8wks (112hrs);
- Labour requirements (operator) for general maintenance calculated at 5hrs/wk x 52wks (260hrs);

5. Equipment Costs:

- Tractor Fuel Costs are calculated as follows: no - of tractor hours x 8L/hr consumption x \$0.50/L price -
- Oil & lube costs are assumed at 15% of fuel costs.
- Repair and Maintenance costs are calculated at 3% of investment capital replacement costs
- Investment Capital replacements costs are for a 10acre farm with 4.75 acres in vegetable production.

Individual Crop Assumptions

1. Cover crop Assumptions (3 acres):

1. Planting costs/rate: \$0.55 per kg
 - conventional: 37.5 kg/acre
 - organic: 56.25 kg/acre
2. Tractor hours: both production systems the same;

fall field prep:	3	hrs/acre	x 2 acres(after corn)	6	hrs
	1	hr/acre	x 2.75 acres (after all other crops)	2.75	hrs
broadcast/disc in seed:	1	hrs/acre	x 4.75 acres	4.75	hrs
<u>spring field prep:</u>	3	hrs/acre	x 4.75 acres	<u>14.25</u>	<u>hrs</u>
<i>total:</i>				27.75	hrs

3. Labour: 27.75 hrs/acre

4. Cover crop is used as a green manure (ie.nutrient/organic matter source) with no direct income gained

2. Sweet Corn Assumptions (2 acres):

1. Yields/returns

	Conventional	..... Transition .....			.....Certified organic.....		
Yields	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
. Retail (doz)	1350	1013	1215	1350	1350	1350	1350
. Direct Wholesale(doz)	450	338	405	450			
. Indirect Wholesale(doz)					450	450	450
<i>.Total</i>	1800	1350	1620	1800	1800	1800	1800
Returns	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
.Retail(\$/doz)	\$3.50	\$3.50	\$3.50	\$3.50	\$3.50	\$3.50	\$3.50
.Direct Wholesale(\$/doz)	\$2.50	\$2.50	\$2.50	\$2.50			
.Indirect Wholesale(\$/doz)					\$2.75	\$2.75	\$2.75

2. Planting costs/rates: *all production systems* .

- density: 42 x 8 sq. inches
- rate: 8 lbs/acre
- cost: \$11.70 per lb

3. Tractor hours:

- compost application: 4 hrs *organic only*
- planting: 2 hrs *all production systems*
- cultivating: 3 x 0.75 hr/acre *all production systems*
- picking: 0.25 hr/1hr picking *all production systems*

4. Fertilizer: *conventional only*

- amount: 50 kg of 34-0-0 (applied when plants 8-12 inches tall)
- cost: \$0.42 per kg

5.Compost: *organic only*

- amount: 24 tons
- cost: \$17.00 per ton

6. Labour Requirements/Costs:

compost application:	4 hrs		<i>organic only</i>
planting:	2 hrs	(2 row corn planter)	<i>all production systems</i>
cultivating:	4.5 hrs		<i>all production systems</i>
picking:	50 doz/hr		<i>all production systems</i>
weeding:	40 hrs		<i>all production systems</i>

7. General Notes: All of the weeding and 50% of the picking labour is hired. 75% of the corn is sold in large t-shirt bags. This budget assumes bag cost at \$16.00 per 1000 bags with 1 bag needed per 0.5 dozen corn.

3. Carrots(1 acre)

1. Yields/returns:

	Conventional	..... Transition .....			.....Certified organic.....		
Yields	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
. Retail (lbs)	22500	16875	20250	22500	22500	22500	22500
. Direct Wholesale(lbs/ac)	7500	5625	6750	7500			
. Indirect Wholesale(lbs/acre)					7500	7500	7500
.Total	30000	22500	27000	30000	30000	30000	30000
Returns	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
.Retail(\$/lb)	\$0.60	\$0.60	\$0.60	\$0.60	\$0.60	\$0.60	\$0.60
.Direct Wholesale(\$/lb)	\$0.30	\$0.30	\$0.30	\$0.30			
.Indirect Wholesale(\$/lb)					\$0.36	\$0.36	\$0.36

2. Planting costs/rates: *all production systems* .

rate:	2.5 lbs/acre
cost:	\$17.00 per lb

3. Tractor hours:

compost application:	0.5 hrs	<i>organic only</i>
cultivating:	6 x 1 hrs	<i>all production systems</i>
picking:	0.25 hr/1hr pick/wash	<i>all production systems</i>

4. Fertilizer: *conventional only*

amount:	50 kg	14-16-10
cost:	0.43 per kg	

4.Compost: *organic only*

amount:	2 tons
cost:	\$17.00 per ton

5. Labour Requirements/Costs:

compost application:	0.5 hrs	<i>organic only</i>
planting:	8 hrs	<i>all production systems</i>
cultivating:	6 hrs	<i>all production systems</i>
pick/wash:	80 lbs/hr	<i>all production systems</i>
bag:	125 lbs/hr	<i>all production systems</i>
weeding:	20 hrs	<i>all production systems</i>

6. Bagged carrots(tops off) are a regulated vegetable in Southern B.C. and subject to B.C. Vegetable Commission fees and licences. Fees are payable on the wholesaled portion of total sales and include:

B.C. Vegetable Commission Fees: \$2.81 per ton

B.C. Agriculture Council Fees: \$0.055 per ton

Retailed carrots (tops off) from the farmgate or Farmers' Markets are not subject to fees but a Producer-Vendor licence (\$100/yr) is required in addition to the Producer licence (\$25/yr).

7. General Notes: All of the weeding and 50% of the labour for pick/wash and bagging is hired. Planting is done with a precision single row hand planter (EarthwayTM).At harvest, carrots are hand dug, washed in a drum washer, & put into 5lb bags. Cost of bags is \$16.00 per 950 bags.

4. Winter Squash Assumptions (0.5 acre):

1. Yields/returns

	Conventional	..... Transition .....			.....Certified organic.....		
Yields	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
. Retail (lbs)	3750	2813	3375	3750	3750	3750	3750
. Direct Wholesale(lbs/ac)	1250	938	1125	1250			
. Indirect Wholesale(lbs/acre)					1250	1250	1250
.Total	5000	3750	4500	5000	5000	5000	5000
Returns	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
.Retail(\$/lb)	\$0.40	\$0.40	\$0.40	\$0.40	\$0.40	\$0.40	\$0.40
.Direct Wholesale(\$/lb)	\$0.25	\$0.25	\$0.25	\$0.25			
.Indirect Wholesale(\$/lb)					\$0.30	\$0.30	\$0.30

2. Planting costs/rates: *all production systems* .

varieties planted: buttercup, golden hubbard, mini-green hubbard, spaghetti ,butternut, delicata, acorn

rate: 2.375 lbs/acre (average of 6.5 and 3 lbs/acre)

cost: \$28.36 per lb (average cost of varieties listed)

3. Tractor hours:

compost application: 0.25 hrs *organic only*

cultivating: 3 x 0.5 hrs *all production systems*

picking: 0.25 hr/1hr picking *all production systems*

4. Compost: *organic only*

amount: 1 tons

cost: \$17.00 per ton

5. Labour Requirements/Costs: *all production systems*

compost application: 0.25 hrs *organic only*

planting: 2 hrs *all production systems*

cultivating: 1.5 hrs *all production systems*

picking: 800 lbs/hr *all production systems*

weeding: 10 hrs *all production systems*

6. General Notes: Squash rows are hand planted 16-20 feet apart to permit for easy access and less plant damage. This is essential when making multiple harvests to supply farmers' markets, etc).Higher yields are possible with smaller row spacings. All of the weeding and 50% of the picking labour is hired. 75% of the squash is sold in large t-shirt bags. This budget assumes a bag cost of \$16.00 per 1000 bags with 5lbs squash per bag.

5. Spinach Assumptions (0.5 acre):

1. Yields/returns

	Conventional	Transition			Certified organic		
Yields	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
. Retail (lbs)	3750	2813	3375	3750	3750	3750	3750
. Direct Wholesale(lbs/ac)	1250	938	1125	1250			
. Indirect Wholesale(lbs/acre)					1250	1250	1250
.Total	5000	3750	4500	5000	5000	5000	5000
Returns	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
.Retail(\$/lb)	\$2.00	\$2.00	\$2.00	\$2.00	\$2.00	\$2.00	\$2.00
.Direct Wholesale(\$/lb)	\$1.00	\$1.00	\$1.00	\$1.00			
.Indirect Wholesale(\$/lb)					\$1.20	\$1.20	\$1.20

2. Planting costs/rates: *all production systems* .

rate: 90000 seeds (180000 seeds/acre or 4lbs/acre)

cost: \$3.55 per 50000 seeds

3. Tractor hours: *all production systems*

cultivating: 3 x 0.5 hrs

4. Labour Requirements/Costs: *all production systems*

planting: 4 hrs with precision single row hand planter (Earthway™)

cultivating: 1.5 hrs

weeding: 4 hrs

pick/wash/bag: 30 bags/hr

5. General Notes: Plant every 2 weeks from as early as the soil can be worked until mid to late May. Later plantings not successful where there is intense summer heat. Plant again in late July to provide a fall and early spring crop. Spinach is cut above the crown, washed, and then bagged by hand. Bag weights are approx. 1lb or 454gm per bag. Plants will regrow enough for a second harvest in 7-10 days. All weeding labour and 50% of pick/wash/bag labour hired. All spinach is sold as 1lb bags at a cost of \$16 per 950 bags.

6. Salad Greens Assumptions (0.25 acre):

1. Yields/returns

	Conventional	Transition			Certified organic		
Yields	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
. Retail (lbs)	2250	1688	2025	2250	2250	2250	2250
. Direct Wholesale(lbs)	750	563	675	750			
. Indirect Wholesale(lbs)					750	750	750
.Total	3000	2250	2700	3000	3000	3000	3000
Returns	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
.Retail(\$/lb)	\$4.00	\$4.00	\$4.00	\$4.00	\$4.00	\$4.00	\$4.00
.Direct Wholesale(\$/lb)	\$2.00	\$2.00	\$2.00	\$2.00			
.Indirect Wholesale(\$/lb)					\$2.40	\$2.40	\$2.40

2. Planting costs/rates: *all production systems* .

rate: 1.2 lbs
 cost: \$145.35 per lb standard mild Mesclun Mix

3. Tractor hours: *all production systems*

cultivating: 2 x 0.25 hrs

4. Labour Requirements/Costs: *all production systems*

planting: 4 hrs lettuces with precision single row hand planter (Earthway™);
 cultivating: 0.5 hrs other greens by hand
 weeding: 2 hrs
 pick/wash/bag: 20 bags/hr

5. General Notes: Plant every 2 weeks from as early as the soil can be worked until mid to late May. Later plantings not successful where there is intense summer heat. Greens are cut above the crown, washed, and then bagged by hand. Bag weights are approx. 0.5lb or 225gm per bag. Plants will regrow enough for a second harvest in 7-10 days. All weeding labour and 50% of pick/wash/bag labour is hired. All greens are sold as 0.5lb bags at a cost of \$16.00 per 950.

7. Cauliflower Assumptions (0.5 acre):

1. Yields/returns:

	Conventional	..... Transition .....			.....Certified organic.....		
Yields	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
. Retail (heads)	3600	2700	3240	3600	3600	3600	3600
. Direct Wholesale(heads)	1200	900	1080	1200			
. Indirect Wholesale(heads)					1200	1200	1200
. Total	4800	3600	4320	4800	4800	4800	4800
Returns	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
.Retail(\$/head)	\$1.50	\$1.50	\$1.50	\$1.50	\$1.50	\$1.50	\$1.50
.Direct Wholesale(\$/head)	\$0.75	\$0.75	\$0.75	\$0.75			
.Indirect Wholesale(\$/head)					\$0.90	\$0.90	\$0.90

2. Planting costs/rates: *all production systems* .

density: 42 inch rows with 15inches between plants (4800 plants/0.5 acre)
 rate: 2.5 lbs/acre
 cost: \$20.62 per 1000 seeds; purchase 6000 seeds to permit for losses.

3. Tractor hours:

compost application: 1 hrs *organic only*
 transplanting: 4 hrs *all production systems*
 cultivating: 2 x 0.5 hrs *all production systems*
 spraying: 3 x 0.5 hrs *all production systems*
 picking: 0.25 hr/1hr pick *all production systems*

4. Fertilizer: *conventional only*

amount: 25 kg of 34-0-0
 cost: 0.42 per kg

5. Compost: *organic only*

amount: 2 tons
 cost: \$17.00 per ton

6. Insecticides: *all production systems*

amount: 3 x 88 grams of Dipel 2X (175gm/acre)
 cost: \$71.96 per kg

7. Labour Requirements/Costs:

compost application:	0.5 hrs	<i>organic only</i>
propogating:	20 hrs	<i>all production systems</i>
transplanting:	2 x 4 hrs	<i>all production systems</i>
cultivating:	1 hrs	<i>all production systems</i>
spraying:	1.5 hrs	<i>all production systems</i>
pick:	200 hrs	<i>all production systems</i>
weeding:	8 hrs	<i>all production systems</i>

8. General Notes: Late season cauliflower started outdoors in propogating beds/flats. Labour care for young plants includes: 2hr seeding; 0.5/day x 30days watering; 3hrs to sort & prepare for transplanting; 20hrs total. Young plants are set out in the field 30 days after seeding. Transplanting is completed in 4 hours by operator and one hired person with a tractor and transplanter. Hired labour required for 50% of transplanting and picking and all of the weeding. 75% of cauliflower is sold in large t-shirt bags at a cost of \$16.00 per 1000 bags with average 1.5 heads/bag.