BUILDING BUSINESS SUCCESS

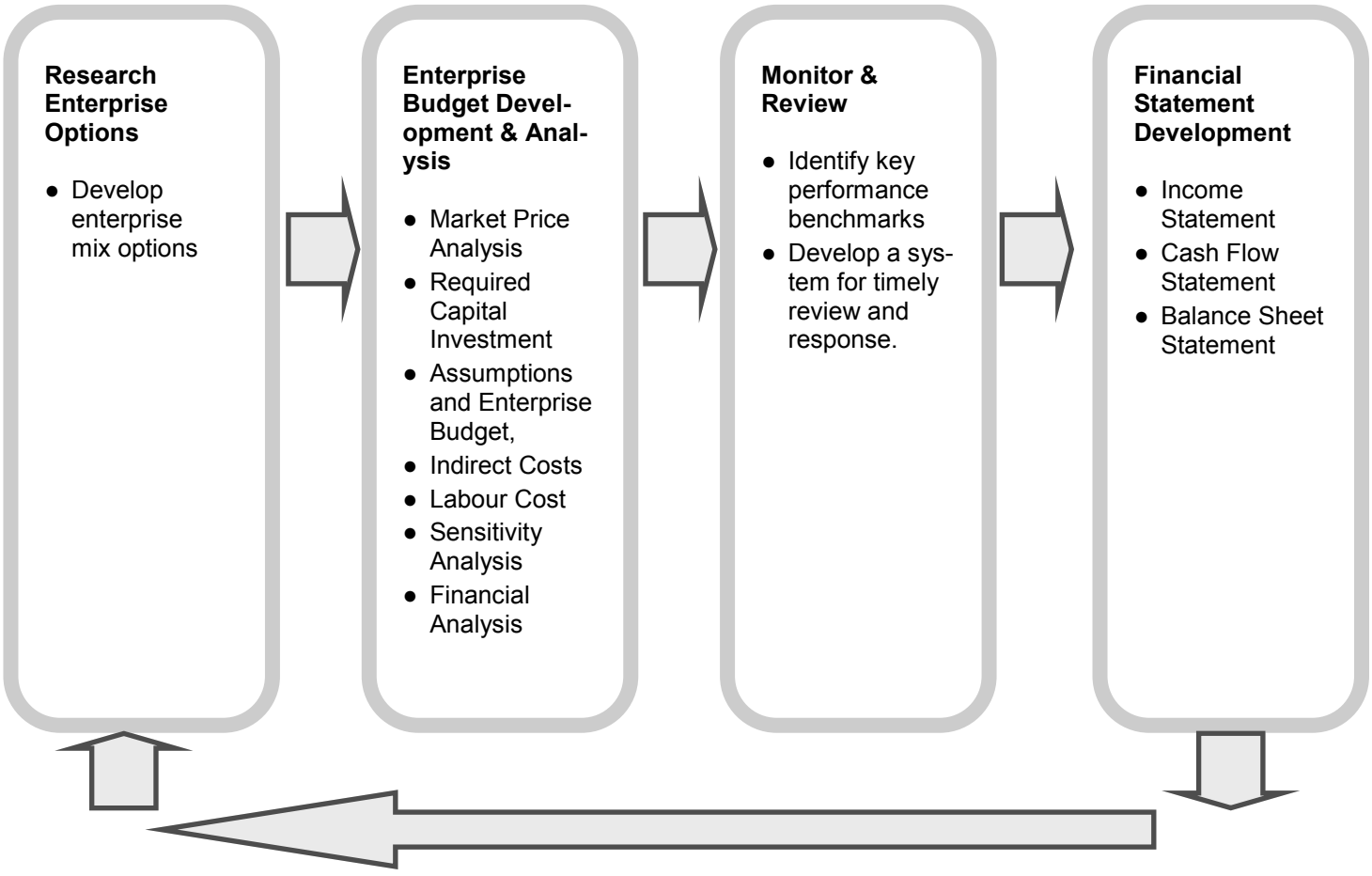
Comparison Budget for Transitional Mixed Organic Berries on 5 acres Vancouver Island

Fall 2013

The **BUILDING BUSINESS SUCCESS** enterprise budget series were developed to provide information to assist producers in projecting costs and returns for British Columbia farm enterprises. These budgets are one part of the overall financial planning process that assists in decision making and in monitoring and reviewing the whole farm business. This factsheet consists of the following sections: Overview of the Financial Planning Process, Assumptions, Crop and Revenue Planning, Enterprise Budget, Indirect Costs, Labour Costs, Required Capital Investment, Production Performance Benchmarks, Sensitivity Analysis and Financial Analysis.

This information is provided as a tool for projecting costs and returns for specific farm enterprises and as a general guide for preparing individual financial plans. This sample budget is based on prevailing costs and prices at time of publication, and will be different for each farm. Producers should develop their own budget to reflect individual production goals, costs and market prices. Financial planning information and other farm enterprise budgets can be downloaded online or obtained from your local office of the B.C. Ministry of Agriculture.

Overview of the Financial Planning Process



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Assumptions Related to Operations and Marketing

General
Budgeting for small lot organic operations can be challenging because every producer must develop a production system that matches the resources available to them. No two farms are alike. Farms tend to have differing availability of usable inputs, i.e. inputs that are certified organic or are permitted when certified products are not available. Most small lot operations are owner operated, with labour hired during peak periods such as pruning and harvesting. Increased labour and management intensity is substituted for conventional fertilizers and weed and pest control products but the actual cost of the added labour or management is not always recorded or acknowledged.

This budget is based on transition to organic production because, based on conversations with producers, certified organic plant stock is not always available so producers must use non-certified stock and wait out the transition period.

Prices
The prices used in this budget are estimated average farm gate and wholesale prices, on Vancouver Island. Based on conversations with producers and market observations, prices vary considerably by region and by producer. Established farms may have developed markets that allow them to sell more product direct to the producer, which allows them to increase their average overall price. Prices during the first three (transitional) years are adjusted to 75% of certified organic prices.

Yields and Marketability
Yields are based on producer testimonials and average yields per plant used in other planning for profit budgets. However, users of this budget should consider that, because of limited weed, pest and disease control options, the organic production system may result in higher percentages of second grade and cull product. These products may need to be marketed in a different manner or form or at a lower price. The establishment budgets, for each berry crop, assume that 50% of the crop can be sold at farm gate price (with adjustments in the transition period noted above), 25% wholesale and 25% at a reduced price for second grade and culls.

Production Cycles
These budgets are not intended to fully describe the production model. As noted earlier, each producer will have different access to inputs such as organic nutrient sources, mulches, labour, etc. Local market demand and competition will likely also affect the desired product mix. These, and other factors noted in this budget, suggest that there is an increased need for planning to identify availability of suitable inputs, including species or varieties that are disease, weed, pest resistant and also fit with your business model.

Soil Fertility
It is assumed that the producer will use “homegrown” nutrients first, adding purchased off farm organic fertilizers to top up or balance fertility as needed. On conventional farms it is easier to estimate these costs because the fertilizer products are well defined and price is readily available. On organic farms it is a combination of labour, management, machinery time (for mixing and spreading composts or other bulky products) and whatever nutrients are available - again another reason to plan and to monitor and measure the time and management inputs required.

Weed, Pest and Disease Control
Producers will select varieties and/or species that are resistant to disease. Beyond that, weed, pest and disease control methods will vary depending on the production system. The budget assumes and includes bird netting as part of the capital cost and an annual cost for maintenance and additional bird control costs. Pest control is based on the annual treatment costs for a commonly used certified organic fungicide.

Marketing
The budget assumes that product can be fully marketed at the prices noted above as the crops become established over three to six years. Producing and harvesting a crop and not being able to sell it can have a significant impact on margins because all of the costs are paid out but revenue is reduced because of unsold product.

Repairs and Maintenance and Miscellaneous Costs
Repairs and maintenance are assumed to be 2.5% of gross sales (the average machinery repair costs for Vancouver Island according to the 2011 Census of Agriculture).

Labour
The amount of labour required for the operation is based on the time for various jobs needed in the operation of the farm. It is assumed that there are two levels of employee - manual labourers and machine operators - with two levels of pay. In this case, the pay rates are $13 per hour and $19 per hour which equates to $13.98 and $20.43 with benefits and payroll costs. On small lot operations of this scale, the owner operator often does the higher end tasks.

Based on discussions with existing producers, market development is the main factor limiting the rate of expansion of the business.

Information sources
The information and assumptions above are based on a combination of producer interviews, actual prices/costs and publications, including previous Planning for Profit budgets.

Assumptions Related to Capital Investment

The section provides details on equipment and buildings required to begin and efficiently operate these enterprises. Capital costs will vary greatly between farms depending what buildings and structures exist at time of start-up. The total required capital investment is also used to determine the depreciation charge for the farm business.

It is assumed that all crops will require drainage and irrigation improvements at a cost of $1500 per acre and $2000 per acre, respectively. Bird netting is installed at a cost of $4,800 per acre - higher than conventional because treated posts are not allowed. The other capital costs are estimated based on the scale of the operation. All capital is in the first five years. Total capital excluding the cost of plant stock is $121,000.

Capital expenses	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
Drainage	6,000	-	-	-	-	-
Irrigation	8,000	-	-	-	-	-
Support systems/nets	-	14,400	4,800	-	-	-
Machine shed	12,000					
Storage & handling		24,000				10,000
Fencing	12,000					
Equipment/tools	30,000				15,000	
Vehicle	18,000					
Other						
Total Capital Expenses	**72,000**	**24,000**	-	-	**15,000**	**10,000**

Assumptions For Mixed Organic Berry Operation

1) This budget is based on a 5 acre transitional organic farm with 4 acres of berries. Capital costs are amortized over 10 years

2) The land is assumed to be cleared, cultivated and generally suited to berry production.
Also assumed to be free of nematodes with no fumigation neccesary.

3) Prices are current producer prices for local organic berries (source: producer interviews, observed and advertised prices)
Note: prices vary considerably from area to area.

Assumed sales are:		Strawberry	Blueberry	Raspberry	Blackberry
50%	fresh farm gate price, at an average price of:	$ 5.00	$ 5.00	$ 6.00	$ 5.00
25%	fresh wholesale market, at an average price of:	$ 3.25	$ 3.25	$ 3.50	$ 3.25
25%	other sales where neccesary at average price of:	$ 2.00	$ 2.00	$ 2.00	$ 2.00
	Average price per lb (based on above distribution	$ 3.81	$ 3.81	$ 4.38	$ 3.81

4) Labour costs are assumed to be:

Manual labour (incl benefits):	$ 13.00	plus P/R costs	7.5%	$ 13.98	per hour including EI, CPP, etc
Machine operator cost:	$ 19.00		7.5%	$ 20.43	per hour including EI, CPP, etc

5) Production figures for various crops are based on historical averages and reasonable expectations for Vancouver Island based on grower experiences.

Crop	Spacing (ft)		Plants/acre	lbs/plant	Area (acres	Production	per acre
Strawberry	4.0	0.8	13613	0.8	1	10890	lbs
Blueberry	9.0	3.3	1489	9	1	13403	lbs
Raspberry	10.0	2.5	1742	6	1	10454	lbs
Blackberry	9.0	8.0	605	15	1	9075	lbs

6) Capital costs specific to each crop (drainage, irrigation, nets, etc.) are included in the crop specific budgets and, cumulatively, in the capital sheet.

7) Capital requirements that are used by all crops are only included in "capital" as follows:
- Machine shed
- Storage and handling facilities
- Fencing
- Equipment and tools
- Vehicle

8) Marketing can be done by the farmer using a small truck and trailer. Renting a truck during peak periods (where necessary) is preferable to buying a bigger truck.

Marketing costs:		Truck operating or renting charge					100.00	$ per load
		Driver (as per machine operator above)					40.85	$ per load
	Fuel	10	lts/hour	2	hours/load		1.20	$ per liter

9) Labour requirements and costs are estimated in the labour section.

10) Irrigation costs are based on $100 for hydro and $90 for maintenance per acre.

Labour—Management and Hired…...

Labour is a key input in small lot horticultural operations, especially in organic berries where there are generally few options to mechanize. As noted, elsewhere, most small lot organic farms are owner (or family) operated so family is the main source of labour.

Operating Labour

The chart and table below show the estimated operational (or production based) labour requirements for the five acre sample farm used in this budget. It does not include management and administration time nor does it include marketing. It is important to budget these labour costs at realistic rates (including payroll taxes) within your general area. Family should be paid for its contribution. There may be times when this is not possible but, in the long run, the business is not truly viable if all labour is not appropriately compensated. Note: recent rulings have determined that WWOOFERS are entitled to minimum wage compensation. The operational or production labour in this budget has been set at a gross rate of $13.98 per hour as shown on the previous page.

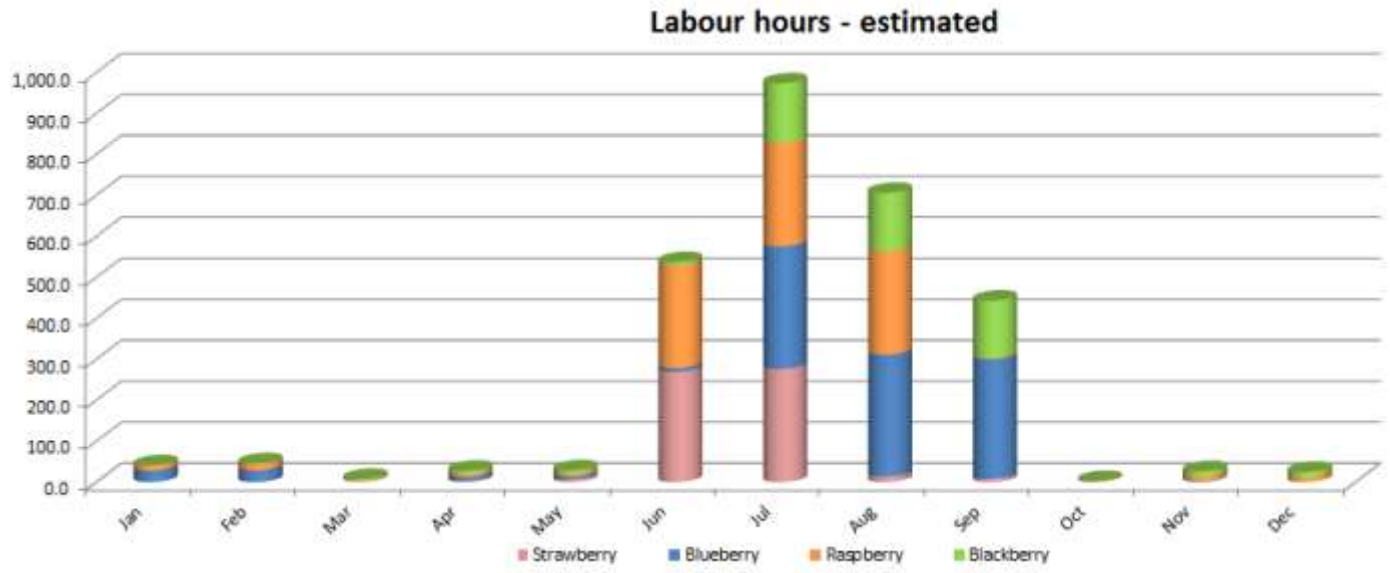
It should be noted that there is significant variation in the estimated time requirements for various tasks. Pruning blueberries is a specific example where the variation in time to prune a blueberry bush varied by several hundred percent depending on the source.

Management and Marketing Time

Management and marketing time are included in this budget in two forms. Supervisory and owner-operator time spent on machinery are included in production costs at a gross pay rate of $20.43 per hour. Management's time and costs spent on marketing (attendance at a Farmers' Markets, etc.) are included as a fixed cost of $5,000 per year. It is recognized that variation in yields and prices, from year to year, will affect overall returns to operator labour, management and capital. However, as noted above, the business is neither viable nor sustainable if it does not pay a reasonable return over time. It is important to consider what overall return is satisfactory for your situation and time spent.

Combined labour hours:

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Hours	41.2	45.0	7.8	28.0	28.8	536.7	972.8	705.7	442.7	2.8	27.0	25.0	2,864
%	1.44%	1.60%	0.27%	0.98%	1.01%	18.74%	33.96%	24.64%	15.45%	0.10%	0.94%	0.87%	100%



Strawberry Establishment Budget—one acre of transitional organic strawberries

Strawberry Establishment (Revenue and Costs $/acre)

Revenue	Quantity	Price	Unit	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8
Yield (lb.)- Full Prod'n	*10,890*		lb.	*0*	*10,890*	*10,890*	*10,890*	*10,890*	*10,890*	*10,890*	*10,890*	*10,890*
Farmgate	50%	$ 5.00	5,445	-	20,419	20,419	27,225	27,225	27,225	27,225	27,225	27,225
Wholesale	25%	$ 3.25	2,723	-	6,636	6,636	8,848	8,848	8,848	8,848	8,848	8,848
Culls, seconds	25%	$ 2.00	2,723	-	4,084	4,084	5,445	5,445	5,445	5,445	5,445	5,445
Total Revenue				-	27,055	27,055	36,073	36,073	36,073	36,073	36,073	36,073
Establishment Costs												
Plants	13,613	$ 0.40	plants		5,445	5,445	5,445	5,445	5,445	5,445	5,445	5,445
Cover Crops	110	$ 1.80	kg	198	198	198	198	198	198	198	198	198
Drainage	1	$ 2,000	acre	2,000	-							
Irrigation	1	$ 2,000	acre	2,000	-							
Support systems/nets	1	$ 4,800		-	4,800							
Labour - machine	see labour req.			557	557	557	557	557	557	557	557	557
Labour - establishment	see labour req.				867	867	867	867	867	867	867	867
Total Establishment Costs				4,755	11,867	7,067	7,067	7,067	7,067	7,067	7,067	7,067
Direct Expenses												
Compost	8	$60.00	m3	-	480	-	480	-	480	-	480	-
Organic fertilizer	4	$22.50	l	-	-	180	270	360	450	450	450	450
Mulch	4	$220.00	roll		880	880	880	880	880	880	880	880
Fuel *(Yr.0 Estab.Mach.)*	70	$1.20	L	108	84	84	84	84	84	84	84	84
Machinery R&M		2.5%	*Revenue	338	676	676	902	902	902	902	902	902
Hive rentals	1	$ 65	hive		195	195	195	195	195	195	195	195
Irrigation/Water	1	$ 190	unit	190	190	190	190	190	190	190	190	190
Bird control	1	$ 200	unit		200	200	200	200	200	200	200	200
Sampling	1	$ 80	each	80	80	80	80	80	80	80	80	80
Pest control	1	$600	unit	-	300	600	600	600	600	600	600	600
Labour - machine	see labour req.			-	260	260	260	260	260	260	260	260
Labour - production	see labour req.			-	643	643	643	643	643	643	643	643
Labour - harvest	see labour req.			-	7,065	7,065	7,065	7,065	7,065	7,065	7,065	7,065
Marketing												
Trans. truck and driver	5.4	$140.85	loads	-	767	767	767	767	767	767	767	767
Fuel	20	$1.20	L	-	131	131	131	131	131	131	131	131
Packaging	10	$2.50	cartons	-	2,723	2,723	2,723	2,723	2,723	2,723	2,723	2,723
Agent (Wholesale)	1	3%	%	-	199	199	265	265	265	265	265	265
Total Direct Expenses				716	14,873	14,873	15,735	15,345	15,915	15,435	15,915	15,435
Gross Margin				*-$5,471*	*$315*	*$5,115*	*$13,272*	*$13,662*	*$13,092*	*$13,572*	*$13,092*	*$13,572*

Blueberry Establishment Budget—one acre of transitional organic blueberries

Blueberry Establishment (Revenue and Costs $/acre)

Revenue	Quantity	Price	Unit	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8
Yield (lb.)- Full Prod'n	*13,403*		lb.	*0*	*0*	*0*	*4,000*	*7,000*	*10,000*	*11,000*	*11,500*	*13,403*
Farmgate	50%	$ 5.00	6,702	-	-	-	10,000	17,499	25,000	27,500	28,750	33,508
Wholesale	25%	$ 3.25	3,351	-	-	-	3,250	5,687	8,125	8,937	9,344	10,890
Culls, seconds	25%	$ 2.00	3,351	-	-	-	2,000	3,500	5,000	5,500	5,750	6,702
Total Revenue				-	-	-	13,250	23,187	33,125	36,437	38,093	44,398
Establishment Costs												
Plants	1,489	$ 8.00	plants	-	11,914	-	-	-	-	-	-	-
Cover Crops	110	$ 1.80	kg	198	-	-	-	-	-	-	-	-
Drainage	1	$ 2,000	acre	2,000	-	-						
Irrigation	1	$ 2,000	acre	2,000	-	-						
Support systems/nets	1	$ 4,800		-	-	4,800						
Labour - machine	see labour req.			578	-	-	-	-	-	-	-	-
Labour - establishment	see labour req.			-	1,370	-	-	-	-	-	-	-
Total Establishment Costs				4,776	13,284	4,800	-	-	-	-	-	-
Direct Expenses												
Compost	100	$0.20	kg	-	20	-	20	-	20	-	20	-
Organic fertilizer	100	$1.00	kg	-	-	200	300	400	500	500	500	500
Mulch	20	$30.00	m3	-	600	600	600	600	600	600	600	600
Fuel *(Yr.0 Estab.Mach.)*	105	$1.20	L	126	126	126	126	126	126	126	126	126
Machinery R&M		2.5%	*Revenue	331	331	331	331	580	828	911	952	1,110
Hive rentals	1	$ 65	hive		260	260	260	260	260	260	260	260
Irrigation/Water	1	$ 190	unit	190	190	190	190	190	190	190	190	190
Bird control	1	$ 200	unit		200	200	200	200	200	200	200	200
Sampling	1	$ 80	each	80	80	80	80	80	80	80	80	80
Pest control	1	$600	unit			300	600	600	600	600	600	600
Labour - machine	see labour req.			-	331	331	331	331	331	331	331	331
Labour - production	see labour req.			-	447	617	925	1,234	1,234	1,234	1,234	1,234
Labour - harvest	see labour req.			-	-	-	2,821	4,937	7,052	7,758	8,110	9,452
Marketing												
Trans. truck and driver	6.7	$140.85	loads	-	-	-	282	493	704	775	810	944
Fuel	20	$1.20	L	-	-	-	48	84	120	132	138	161
Packaging	10	$2.50	cartons	-	-	-	1,000	1,750	2,500	2,750	2,875	3,351
Agent (Wholesale)	1	3%	%	-	-	-	98	171	244	268	280	327
Total Direct Expenses				727	2,586	3,235	8,212	12,034	15,589	16,714	17,306	19,465
Gross Margin				*-$5,503*	*-$15,869*	*-$8,035*	*$5,038*	*$11,152*	*$17,536*	*$19,723*	*$20,787*	*$24,932*

Raspberry Establishment Budget—one acre of transitional organic raspberries

Raspberry Establishment (Revenue and Costs $/acre)

Revenue	Quantity	Price	Unit	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8
Yield (lb.)- Full Prod'n	*10,454*		lb.	-	-	*8,000*	*10,454*	*10,454*	*10,454*	*10,454*	*10,454*	*10,454*
Farmgate	50%	$ 6.00	5,227	-	-	18,000	31,363	31,363	31,363	31,363	31,363	31,363
Wholesale	25%	$ 3.50	2,614	-	-	5,250	9,148	9,148	9,148	9,148	9,148	9,148
Culls, seconds	25%	$ 2.00	2,614	-	-	3,000	5,227	5,227	5,227	5,227	5,227	5,227
Total Revenue				-	-	23,250	40,511	40,511	40,511	40,511	40,511	40,511
Establishment Costs												
Plants	1,742	$ 1.00	plants	-	1,742	-	-	-	-	-	-	-
Cover Crops	110	$ 1.80	kg	198	-	-	-	-	-	-	-	-
Drainage	1	$ 1,500	acre	1,500	-							
Irrigation	1	$ 2,000	acre	2,000	-							
Support systems/nets	1	$ 4,800		-	4,800							
Labour - machine	see labour req.			541								
Labour - establishment	see labour req.			-	1,370							
Total Establishment Costs				4,239	7,912	-	-	-	-	-	-	-
Direct Expenses												
Compost	100	$0.20	kg	200	400	-	200	-	200	-	200	-
Organic fertilizer	100	$1.00	kg	-	200	200	300	400	500	500	500	500
Mulch	20	$30.00	m3	-	600	600	600	600	600	600	600	600
Fuel *(Yr.0 Estab.Mach.)*	100	$1.20	L	108	120	120	120	120	120	120	120	120
Machinery R&M		2.5%	*Revenue	581	581	581	1,013	1,013	1,013	1,013	1,013	1,013
Hive rentals	1	$ 65	hive		130	130	130	130	130	130	130	130
Irrigation/Water	1	$ 190	unit	190	190	190	190	190	190	190	190	190
Bird control	1	$ 200	unit		200	200	200	200	200	200	200	200
Sampling	1	$ 80	each	80	80	80	80	80	80	80	80	80
Pest control	1	$600	unit	-	300	600	600	600	600	600	600	600
Labour - machine	see labour req.			-	392	392	392	392	392	392	392	392
Labour - production	see labour req.			-	447	1,146	1,146	1,146	1,146	1,146	1,146	1,146
Labour - harvest	see labour req.			-	-	6,796	8,881	8,881	8,881	8,881	8,881	8,881
Marketing												
Trans. truck and driver	5.2	$140.85	loads	-	-	563	736	736	736	736	736	736
Fuel	20	$1.20	L	-	-	96	125	125	125	125	125	125
Packaging	10	$2.50	cartons	-	-	2,000	2,614	2,614	2,614	2,614	2,614	2,614
Agent (Wholesale)	1	3%	%	-	-	158	274	274	274	274	274	274
Total Direct Expenses				1,159	3,641	13,853	17,602	17,502	17,802	17,602	17,802	17,602
Gross Margin				*-$5,398*	*-$11,553*	*$9,397*	*$22,908*	*$23,008*	*$22,708*	*$22,908*	*$22,708*	*$22,908*

Blackberry Establishment Budget—one acre of transitional organic blackberries

Blackberry Establishment (Revenue and Costs $/acre)

Revenue	Quantity	Price	Unit	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8
Yield (lb.)- Full Prod'n	*9,075*		lb.	-	-	*6,000*	*9,075*	*9,075*	*9,075*	*9,075*	*9,075*	*9,075*
Farmgate	50%	$ 5.00	4,538	-	-	11,250	22,688	22,688	22,688	22,688	22,688	22,688
Wholesale	25%	$ 3.25	2,269	-	-	3,656	7,373	7,373	7,373	7,373	7,373	7,373
Culls, seconds	25%	$ 2.00	2,269	-	-	2,250	4,538	4,538	4,538	4,538	4,538	4,538
Total Revenue				-	-	14,906	30,061	30,061	30,061	30,061	30,061	30,061
Establishment Costs												
Plants	605	$ 2.00	plants	-	1,210	-	-	-	-	-	-	-
Cover Crops	110	$ 1.80	kg	198	-	-	-	-	-	-	-	-
Drainage	1	$ 1,500	acre	1,500	-							
Irrigation	1	$ 2,000	acre	2,000	-							
Support systems/nets	1	$ 4,800		-	4,800							
Labour - machine	see labour req.			541	-	-	-	-	-	-	-	-
Labour - establishment	see labour req.			-	1,370	-	-	-	-	-	-	-
Total Establishment Costs				4,239	7,380	-	-	-	-	-	-	-
Direct Expenses												
Compost	100	$0.20	kg	-	200	-	200	-	200	-	200	-
Organic fertilizer	100	$1.00	kg	-	200	200	300	400	500	500	500	500
Mulch	20	$30.00	m3	-	600	600	600	600	600	600	600	600
Fuel *(Yr.0 Estab.Mach.)*	75	$1.20	L	108	90	90	90	90	90	90	90	90
Machinery R&M		2.5%	*Revenue	373	373	373	752	752	752	752	752	752
Hive rentals	1	$ 65	hive		130	130	130	130	130	130	130	130
Irrigation/Water	1	$ 190	unit	190	190	190	190	190	190	190	190	190
Bird control	1	$ 200	unit		200	200	200	200	200	200	200	200
Sampling	1	$ 80	each	80	80	80	80	80	80	80	80	80
Pest control	1	$600	unit	-	300	600	600	600	600	600	600	600
Labour - machine	see labour req.			-	267	267	267	267	267	267	267	267
Labour - production	see labour req.			-	447	447	447	447	447	447	447	447
Labour - harvest	see labour req.			-	-	6,375	9,642	9,642	9,642	9,642	9,642	9,642
Marketing												
Trans. truck and driver	4.5	$140.85	loads	-	-	423	639	639	639	639	639	639
Fuel	20	$1.20	L	-	-	72	109	109	109	109	109	109
Packaging	10	$2.50	cartons	-	-	1,500	2,269	2,269	2,269	2,269	2,269	2,269
Agent (Wholesale)	1	3%	%	-	-	110	221	221	221	221	221	221
Total Direct Expenses				751	3,077	11,656	16,736	16,636	16,936	16,736	16,936	16,736
Gross Margin				*-$4,989*	*-$10,457*	*$3,250*	*$13,325*	*$13,425*	*$13,125*	*$13,325*	*$13,125*	*$13,325*

Whole Farm Establishment Budget– transitional organic berries

Whole Farm Net Income Estimates- 5 acre Transitional Organic farm with 4 acres of Berries

Income	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8
Strawberry	-	27,055	27,055	36,073	36,073	36,073	36,073	36,073	36,073
Blueberry	-	-	-	13,250	23,187	33,125	36,437	38,093	44,398
Raspberry	-	-	23,250	40,511	40,511	40,511	40,511	40,511	40,511
Blackberry	-	-	14,906	30,061	30,061	30,061	30,061	30,061	30,061
TOTAL INCOME	-	27,055	65,211	119,895	129,832	139,770	143,082	144,738	151,043
Direct Expenses									
Plants	-	20,311	5,445	5,445	5,445	5,445	5,445	5,445	5,445
Cover Crops	594	198	198	198	198	198	198	198	198
Labour - machine	2,216	557	557	557	557	557	557	557	557
Labour - establishment	-	4,977	867	867	867	867	867	867	867
Compost	200	1,100	-	900	-	900	-	900	-
Organic fertilizer	-	400	780	1,170	1,560	1,950	1,950	1,950	1,950
Mulch	-	2,680	2,680	2,680	2,680	2,680	2,680	2,680	2,680
Fuel	450	420	420	420	420	420	420	420	420
Machinery R&M	1,623	1,962	1,962	2,997	3,246	3,494	3,577	3,618	3,776
Hive rentals	-	715	715	715	715	715	715	715	715
Irrigation/Water	760	760	760	760	760	760	760	760	760
Bird control	-	800	800	800	800	800	800	800	800
Sampling	320	320	320	320	320	320	320	320	320
Pest control	-	900	2,100	2,400	2,400	2,400	2,400	2,400	2,400
Labour - machine	-	1,250	1,250	1,250	1,250	1,250	1,250	1,250	1,250
Labour - production	-	1,985	2,854	3,162	3,471	3,471	3,471	3,471	3,471
Labour - harvest	-	7,065	20,236	28,410	30,525	32,641	33,346	33,699	35,041
Marketing	-	3,819	8,740	12,300	13,371	14,441	14,798	14,976	15,655
Total Direct Expenses	6,164	50,219	50,684	65,351	68,584	73,309	73,554	75,026	76,305
GROSS MARGIN	*-$6,164*	*-$23,164*	*$14,527*	*$54,543*	*$61,247*	*$66,461*	*$69,528*	*$69,712*	*$74,738*
Indirect (fixed) Expenses									
Accounting & legal	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200
Bank charges	600	600	600	600	600	600	600	600	600
Insurance	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000
Taxes/licences	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500
Utilities	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000
Unallocated R&M	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Auto expenses	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500
Telephone & postage	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200
Office & Supplies	2,400	2,400	2,400	2,400	2,400	2,400	2,400	2,400	2,400
Certification costs	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
General Marketing Costs	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000
Total Fixed Expenses	20,400	20,400	20,400	20,400	20,400	20,400	20,400	20,400	20,400
Net Income	*-$26,564*	*-$43,564*	*-$5,873*	*$34,143*	*$40,847*	*$46,061*	*$49,128*	*$49,312*	*$54,338*
Amortization (est.)	-	8,700	11,670	10,983	9,885	10,396	10,357	9,321	8,389
Gross Return to Operator Labour and Management	*-$26,564*	*-$52,264*	*-$17,543*	*$23,160*	*$30,963*	*$35,665*	*$38,772*	*$39,991*	*$45,949*

Indirect (fixed) Expenses

The indirect (fixed) expenses for this 5 acre Berry Farm budget are shown in the table to the right. These are included mainly as an example to illustrate that the gross margin from each crop enterprise should be sufficient to cover these fixed expenses as well as other costs such as interest on debt, operator labour, etc. This is shown in the Whole Farm Income summary on page 10 with the Gross Return to Operator Labour and Management. Indirect expenses vary from farm to farm and should be adjusted to reflect your specific situation and overall income requirements.

Fixed Expenses	Sample farm	Your farm
Accounting & legal	$1,200	
Bank charges	$600	
Insurance	$2,000	
Taxes/licences	$1,500	
Utilities	$3,000	
Unallocated R&M	$1,000	
Auto expenses	$1,500	
Telephone & postage	$1,200	
Office & Supplies	$2,400	
General Marketing (owner)	$5,000	
Total Indirect Expenses	***$20,400***	

Cumulative Whole Farm Cash Flow During Establishment

The table below shows the Net Income along with net cash flow per year and cumulative cash flow for the whole farm over the first eight years. Note: the Net Income is the bottom line on the whole farm budget found on page 14. Based on this, capital expenses are not fully recovered by the end of Year 8.

Year	***Year 0***	***Year 1***	***Year 2***	***Year 3***	***Year 4***	***Year 5***	***Year 6***	***Year 7***	***Year 8***
Net Income	***-$26,564***	***-$46,564***	***-$5,873***	***$34,143***	***$40,847***	***$46,061***	***$49,128***	***$49,312***	***$54,338***
Capital expenses	***$87,000***	***$38,400***	***$4,800***		***$15,000***	***$10,000***			
Net cash flow for year	***-$113,564***	***-$81,964***	***-$10,673***	***$34,143***	***$25,847***	***$36,061***	***$49,128***	***$49,312***	***$54,338***
Cumulative cash flow surplus	*-$113,564*	*-$195,528*	*-$206,200*	*-$172,057*	*-$146,210*	*-$110,149*	*-$61,020*	*-$11,708*	***$42,629***

Production Performance Benchmarks

All businesses have critical performance measures that drive the profitability of the operation.
The non-labour cash input costs of organic berry farms are generally relatively low. Conventional fertilizers, weed control, pest and disease control are replaced by "attention to detail" on organic farms.

Very good recordkeeping systems are needed for organic certification but they should also be developed to guide management decisions. "If you don't measure it, you can't manage it." As noted earlier, there is very limited information on the time requirements (and costs) related to some of the necessary tasks on organic farms.

Return to operator labour and management. The recordkeeping system should allow the owner-operator to determine an accurate assessment of the financial return to operator's time. Initially, owners may be willing to accept a low return but, in the long term, a business is not truly viable or sustainable if it does not pay an appropriate return to operator, management and capital.

Marketability. One of the key reasons to develop a direct farm market operation is that it allows the farmer to receive full retail (or near retail) price for their product. However, this means that the producer must develop a market or have the ability to move all product at a high level of quality when it is ready. In the sample farm case, this equates to sales of about $1,700 per week (assuming a 16 week harvest season) in Year 1, to $8,700+ per week by Year 5.

Sensitivity Analysis

Sensitivity analysis is used to assess the change in the operation's gross return resulting from price, cost and/or production and market fluctuations.

The table below shows the impact on gross return to operator, labour, management and capital from changes in projected Income and Direct Expenses for the whole farm. There is a greater impact on the gross return from a decrease in revenues versus increases in direct costs. Revenue impact could be from not being able to sell all product at full price when it is ready or other risk factors including production level and quality.

Impact of Changes to Income and Direct Expenses on Return to Operator Labour & Management					
Year 8 - Average Full Production (5 Acre Berry Farm)					
	Percentage of Income				
	45,949	80%	90%	100%	110%
% of	90%	23,371	38,475	53,579	68,683
Direct	100%	15,740	30,844	45,949	61,053
Expenses	110%	8,110	23,214	38,318	53,422
	120%	479	15,583	30,688	45,792

Risk Factors

This budget has been prepared based on good management and production practices.

There are numerous factors on organic farms that can impact the level and quality of production and resulting profitability. These could include items such as weather, horticulture management, pollination, disease, pests, harvest labour, transportation and storage, marketing and other factors.

It is important to assess the assumptions used in this budget against your specific farm situation and expectations. Both external and internal risk factors should be assessed in terms of probability and impact. In particular, managing risks with high probability and high impact will be critical to meeting production and revenue projections and associated farm profitability.

One way of assessing risks for your farm is to categorize risks into production, market, financial, human or policy areas. Then address each area of risk. Decide if the risk is a high or low possibility, what the impact on your farm is and then develop a strategy to mitigate that risk. Be sure all members of your operation are knowledgeable of the risk considerations.

Additional information on managing risk and government risk management programs are available online:

- Business Risk Management Programs, B.C. Ministry of Agriculture
- Farm Business Risk Assessment Profile, B.C. Ministry of Agriculture
- Risk Choices, Alberta Agriculture

Financial Analysis

1. Profitability: Reviews the operation's ability to generate surplus over all direct and indirect cost. Profitability is primarily determined by the net income value. Net income is the owners return to labour, capital and management. Owners will use net income to pay principle payment on loans, withdraw for living or other personal uses, and invest in future capital for the operation.

	SAMPLE FARM	YOUR FARM
Production area	5 acres	
REVENUE		
Less		
DIRECT COSTS		
Equals		
GROSS MARGIN		
Less		
INDIRECT COSTS		
General Items		
Interest on Term Debt		
Depreciation		
Salary for Owner/ Manager		
Equals		
NET INCOME		

2. Cash Flow Analysis: Reviews the month to month timing of required cash outflows (e.g., wages, supplies, interest charges) and inflows (e.g. product sales) to determine cash shortfalls, manage cash reserves and assist in planning for interim financing/short term loans.

	Jan	Feb	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Opening Cash Balance												
Inflow												
Outflow												
Net Cash Flow												

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3. Sensitivity Analysis: Reviews the impact of the specific items such as cost, price and yield on the gross margin and profitability of the operation. Select items that may vary a great deal or are important to the operation (i.e., fuel cost, wages rates, production amounts, market prices) and vary them in the budget to determine the effect on gross margin.

	Increase Price by 10 % and Use Target Production Yield	Decrease Price by 10 % and Use Target Production Yield	Use Target Production Yield and Target Price
Gross Margin			

4. Return on Assets (ROA) This is the return generated from the operation's assets. The value indicates the productivity of the assets and how well these assets are managed. ROA is determined as:

$$\frac{\text{(Net Income plus annual interest charges)}}{\text{Assets}}$$

	Sample Farm	Your Farm
Net Income		
Annual Interest Charges		
Value of Total Assets		
Return on Assets		

5. Return on Equity (ROE) This is the return generated from the assets that are owned by the owner, not all assets. This measures the profit earned for each dollar owner has invested in the operation. ROE is determined as

$$\frac{\text{(Net Income)}}{\text{Owner Equity}}$$

	Sample Farm	Your Farm
Net Income		
Value of Total Assets		
Value of Total Liabilities		
Value of Owner Equity (Value of Total Assets less Value of Total Liabilities)		
Return on Owner Equity		