



# PLANNING FOR PROFIT



BRITISH  
COLUMBIA

Ministry of Agriculture,  
Food and Fisheries

Summer 2001

## Peaches – Okanagan Valley Modified Central Leader – 311 trees/acre

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 and should not be used for business analysis. Each farm should develop their own budget to reflect their production goals, costs and market prices.

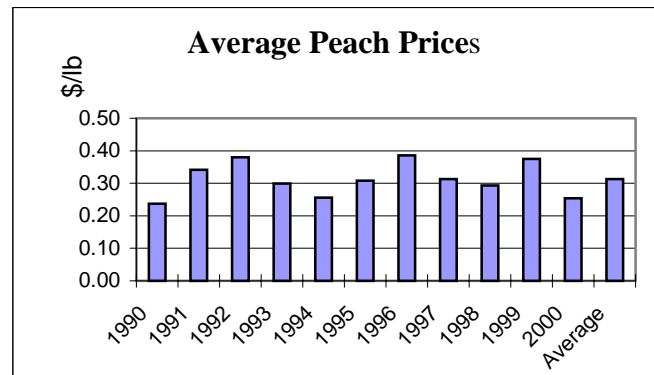
Information regarding financial planning and other enterprise budgets may be downloaded from the internet at <http://fbminet.ca/bc> or obtained from your local office of the B.C. Ministry of Agriculture, Food and Fisheries.

### Market Factors

Peach production is well suited to the Okanagan Valley, particularly in the southern portions of the Valley. The peach crop may be distributed and marketed through cooperative packinghouses and B.C. Tree Fruits or sold direct from the farm gate to peddlers, roadside stands, smaller independent packers, and consumers. The market for peaches remains strong, although variety selection is important in order to avoid mid season excesses.

The potential for direct to the consumer sales is limited, although price returns per pound are greater than returns from packinghouses, peddlers or roadside stands. Cullage rates on direct consumer sales may be higher, especially if selling tree ripened fruit.

The demand for peaches is stable.



### Risk Factors & Strategies

Price Fluctuations in prices are the largest risk factor. For direct farm gate sales, producers should plant several varieties in order to have a greater harvest period and avoid a midseason surplus. Producers must be very conservative in assessing price returns when establishing financial plans.

Production Horticultural skills must be at a high level, with different varieties having different demands. Inexperience and lack of diligence can cause a set back or general reduction in yield. Powdery mildew, brown rot, insect damage and rodent damage can cause substantial losses. Excellent weed control, nutrition, and soil preparation, in addition to a good irrigation supply are also essential to ensure low tree mortality and high yields. Hail and frost damage are a constant threat.

Financial Capital inputs including land, equipment, irrigation systems, and trees are substantial. Equipment sharing, land leasing, and reducing labour input costs can offset the financial risk. Crop insurance, whole farm insurance, and NISA are risk management tools to consider.

## Assumptions: Peaches – Modified Central Leader 311 tree/acre Okanagan Valley

The sample budget reflects standard practices in the area and does not represent any particular farm. The budget is based on interviews with producers, packinghouse staff, and BCMAFF specialists plus information from local nurseries and agricultural suppliers.

- 1 acre of Peaches in the Okanagan Valley. Total farm size of 20 acres.
- Production of 1,000 lbs in year 2 and full production of 17,500 lb./acre in year 7. 50% of fruit is shipped to local packinghouse cooperatives and marketed through B.C. Tree Fruits. The remaining 50% is marketed through a number of channels such as peddlers, roadside stands, or independent packers.
- Of the total yield, 90% is sold fresh market at a \$0.30/lb. target price, and 10% is culled with no value.
- 5/8 inch caliper trees are planted 10 ft. by 14 ft. (311 trees/acre) at a cost of \$8.50 per tree. There is a tree mortality of 3% and these trees are replaced in year 2.
- Building and machinery repair and maintenance costs are estimated at 3% of replacement value for one acre (includes the R&M of buildings, tractors, implements, farm vehicles and irrigation system).
- Fuel costs are based on a std. 8L/hr fuel consumption, \$0.50/L fuel cost, and the hr./ac. required to complete the following tasks with a tractor: mowing (4X in yr. 1; 5X in years 2 to 8; 0.75 hr each); weed spraying (4X in yr. 1; 3X for yrs. 2 to 8; 0.75 hr each); tree spraying (3 X in yr. 1; 8X in yr. 2; 10X in yr. 3 to 7; 0.5 hr each); ground fertilizing (3X in yr. 1 to 2; 1X in yr. 3 to 8; 0.25 hrs each); bin yarding (0.2,0.5,1.7, 2.8, 3.2 and 4.1 hrs for years 2 to 8, respectively).
- Costs for harvesting assume: \$18.00 per bin (1.5 bin/hr) for picking and 10 bins/hr x \$10/hr for yarding bins in and out. WCB and benefits are detailed separately and total 14.3% (2.85% WCB; 7.45% CPP&EI; 4% vacation pay).
- Bin weight is 425 lbs.
- There is a variable amount of labour associated with equipment set-up and maintenance, purchasing supplies, organizing picking crews, general administration, etc. Due to high cost variability, these operations are not accounted for in this sample budget but are important parts of any farm operation.

## Sensitivity Analysis

The profitability of an operation will be strongly influenced by prices and marketable yield. The table below illustrates the changes to contribution margin as prices and yield vary in the full production year.

	Marketable Yield (lbs)	Contribution margin*
<b>Low</b>	9,000	(444)
<b>Average</b>	13,500	906
<b>Target</b>	15,750	<b>1,581</b>
<b>High</b>	18,000	2,256

\*\$0.30/lb

	Price/lb	Contribution margin*
<b>Low</b>	0.23	479
<b>Average</b>	0.28	1,266
<b>Target</b>	0.3	<b>1,581</b>
<b>High</b>	0.35	2,368

\*15,750 lbs

## Cash Flow Timing

The table below indicates the monthly flow of income and direct expenses. It assumes that 50% of the fruit is direct marketed and 50% of the fruit is delivered to the packinghouse. Packinghouse payments are made in November and December. A complete projected cash flow should include indirect expenses, capital sales and purchases, loans and personal expenses.

Month	J	F	M	A	M	J	J	A	S	O	N	D
<b>%Income</b>							20	25	5		25	25
<b>%Expenses</b>			20	15	10	30	13	10	2			

## One Acre Enterprise Budget and Worksheet Peaches (311 trees/acre), Okanagan Valley, Summer 2001

These projections should be viewed as a first approximation only. Use the column "Your Estimate," to add, delete and adjust items to reflect your specific production situation.

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Your Estimate
<b>Projected Income</b>	(planting)							
Total Yield (lb./acre)	0	1,000	2,000	7,000	12,000	13,500	17,500	
Marketable Yield (90% of total)	0	900	1,800	6,300	10,800	12,150	15,750	
<b>Total Income</b>	<b>0</b>	<b>270</b>	<b>540</b>	<b>1,890</b>	<b>3,240</b>	<b>3,645</b>	<b>4,725</b>	
(Marketable Yield at \$.30/ lb.)								
<b>Projected Direct Expenses</b>								
Trees	2644	79						
Irrigation System */ Tax	1,550	50	50	50	50	50	50	
IPM Charges	50	75	75	75	75	75	75	
Rodent Bait	14	14	14	14	14	14	14	
Peat / Fixed copper	331	9	9	9	9	9	9	
Insecticides	0	335	335	335	335	335	335	
Fungicides	33	136	136	136	136	136	136	
Herbicides	146	96	96	96	96	96	96	
Fertilizers	83	83	40	53	53	53	53	
Foliar nutrients	21	54	60	60	60	60	60	
Crop Insurance	0	0	60	60	60	60	60	
Machinery R&M	297	297	297	297	297	297	297	
Fuel, oil & lube	102	51	54	59	65	66	71	
Labour								
-Plant/Prune/Train/General	2,317	130	259	579	958	1,137	1,437	
-Harvesting (incl. Bin haul)	0	26	55	190	322	363	471	
<b>Total Direct Expenses</b>	<b>7,587</b>	<b>1,436</b>	<b>1,538</b>	<b>2,012</b>	<b>2,529</b>	<b>2,752</b>	<b>3,144</b>	
<b>Contribution Margin</b>	<b>-7,587</b>	<b>-1,166</b>	<b>-998</b>	<b>-122</b>	<b>711</b>	<b>893</b>	<b>1,581</b>	
(gross income less direct expenses)								

\* May be viewed as a capital item.

### Calculation of Projected Net Income

To assess net income, **indirect expenses** must be subtracted from income. 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.

<b>Projected Income</b>	.....
<b>Less Projected Direct Expenses</b>	- .....
<b>= Projected Contribution Margin</b>	= .....
<b>Less Projected Indirect Expenses</b>	
Depreciation (e.g., buildings and equipment)	- .....
Interest	- .....
Other Indirect Expenses (e.g., operator labour)	- .....
<b>= Projected Net Income</b>	.....

## Labour Requirements Peaches – Modified Central Leader 311 tree/acre

Person Labour Hours	Yr 1	Yr2	Yr3	Yr4	Yr 5	Yr 6	Yr 7
Land clear/prep	60						
Irrigation install	20						
Survey, Stake, Plant, Paint	35						
Pruning	3	8	16	26	41	52	62
Hand thinning	0	4	7	25	42	48	62
Harvest							
...picking	0	4	7	25	42	48	62
...yarding bins in/out	0	0	0	2	3	3	4
...total	0	4	8	26	45	51	66
Trucking (bin hauling)	0	0	0	2	3	3	4
<b>Total</b>	<b>118</b>	<b>19</b>	<b>38</b>	<b>105</b>	<b>177</b>	<b>204</b>	<b>260</b>

### Machine Labour Hours

	Hrs/acre	Land clearing and preparation assumes: 5 hr of machine time at \$80/hr for stump removal; 3 hrs of machine time at \$125.00/hr for ground ripping; 60 hrs of labour at \$10/hr for tree cutting, wood bucking & removal, debris removal & burning, and cultivation. Planting assumes: 4 hrs of labour for surveying and staking site and 3 min/tree x 2 people at \$10/hr for planting and painting trunks. Irrigation installation assumes 1 hr at \$75/hr for trenching and 20 hrs at \$10/hr for system installation. Labour costs for pruning are based on \$10/hr. Thinning labour costs are based on \$15/bin.
Land clear/prep		
...stump removal	5	
...ground ripping	3	
Irrigation install (trenching)	1	

### Buildings and Machinery Replacement Cost (20 acres)

Buildings	\$40,000
Tractor (Power Machinery)	50,000
Implements	
...Mower, tiller, ripper, blade	11,500
...sprayers	17,500
...loader & attachments	7,000
...fertilizer spreader	2,300
Small tools & equipments	16,500
Irrigation System	45,000
Supplies (bins, pallets, etc.)	1,000
Farm vehicles	25,000
<b>Total</b>	<b>215,800</b>

### Key Success Factors

- High level of horticultural training & skills to produce high quality and high yields.
- Reduce direct and indirect expenses as much as possible. Hire out as little of the labour inputs as possible (eg.prune yourself)
- Plant more than one variety to offset mid season excesses and provide a longer harvest period.

### For More Information

#### References:

- Tree Fruit Production Guide, BCMAFF Peach-Establishment: Modified Central Leader. 311 trees/acre – Okanagan Valley. Spring 1999. Planning for Profit. BCMAFF <http://fbminet.ca/bc>
- BCMAFF web site. <http://www.agf.gov.bc.ca/>
- BCMAFF Infobasket <http://infobasket.gov.bc.ca>
- FBMinet-BC <http://fbminet.ca/bc>

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