



PLANNING FOR PROFIT



Ministry of Agriculture,
Food, & Fisheries

FINISHER HOGS AND FINISHER BEEF STEERS SMALL SCALE OPERATION

WINTER 2002

This information is provided as a tool for projecting costs and returns for B.C. farm enterprises and as a general guide for planning individual farms. The sample budget should be used as a guide only and should not be used for business analysis without adjustments to reflect individual situations. 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 B.C. Ministry of Agriculture, Food and Fisheries (<http://www.agf.gov.bc.ca/busmgmt/>).

Key Success Factors

- Sound knowledge and skill base in animal husbandry - Ensure optimum feed efficiency and reduced morbidity.
- Effective selection of building and pasture sites and good preparation and management of pasture system.
- Purchase livestock at the most competitive price as possible .
- Purchase bulk feeds whenever possible and reduce overall feed purchases with available pasture.
- Identify and research your markets. Pre-sell as much as possible to reduce storage volumes and establish profit margins.
- Vigilant record keeping of all aspects of operation from production to marketing.

Market Factors

- Small scale livestock production is generally destined for the local market - Sales are completed from the farmgate or through a local auction. With farmgate sales, the grower can adjust prices according to local demand and supply. With auction sales, the producer has less control over the selling price.
- Production adjustments such as final dressed carcass weights may be made according to customer demand.

Risk Factors and Strategies

Production Risks - Reduced morbidity and mortality along with a balanced feeding program and optimum feed efficiencies are vital to attaining production targets for beef and swine. Providing a clean and consistent feed and water supply and a clean rearing facility are all crucial to maintaining healthy livestock.

Purchase prices for livestock at the start of the feeding season are equally as important as price returns at the end of the feeding season. Livestock purchases will be the largest direct expense and will have the biggest impact on the margin of return. Second to livestock purchase price, is feed price, which can also markedly impact income margins. Purchasing bulk feeds can help reduce feed costs, but the operator must have a suitable storage facility.

Handling risks - It is essential that the stress to animals during shipping to processing plants is minimized. Highly stressed animals will result in poorer meat quality (eg.meat that is very tough; pale-soft exudative pork). Reduce distances to processing plants as much as possible.

Price Risks -This will depend upon your location and method of marketing. If directly marketing to the consumer as opposed to selling through the auction, you have more control over the sale price, although pricing levels must still be within a certain range of customer expectation. Selling from the farmgate entail greater labour inputs and higher costs associated with processing and marketing, however gross price returns are also higher than that from an auction sale.

Providing a consistent and high quality product and ensuring your customer needs are met are vital elements in obtaining a sound price return.

Market Risks - In a direct marketing system, supply and demand of local product are key issues. Ensure that the animals raised have a high demand and be aware of new or existing producers that may impact the market. Tailor your production decisions according to what your market will bear.

Distances to processors or auctions must be considered when making choices on how to market your finished livestock.

SAMPLE ENTERPRISE BUDGET AND WORKSHEET 10 FINISHER HOGS AND 10 FINISHER BEEF STEERS

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

Product	Amount	Carcass Wt.	Unit	Price	Income	Your Farm
Hogs	10	192	lbs	\$2.75	\$5,280.00	_____
Beef Steers	10	700	lbs	\$2.75	<u>\$19,250.00</u>	_____
Total					\$24,530.00	_____

Projected Direct Expenses

Item	Quantity	Unit	Price	Expense	Your Farm
Weaner Pigs (45lb)	10	pigs	\$50.00	\$500	_____
Beef Steers(800lb)	10	steers	\$750.00	\$7,500	_____
Feed					_____
.hog ration	1,650	kg	\$0.38	\$619	_____
.rolled barley	6.17	tonne	\$245.00	\$1,512	_____
.hay	14.40	tonne	\$150.00	\$2,160	_____
.minerals/salt				\$140	_____
Process/Packaging					_____
.hogs				\$1,068	_____
.steer				\$3,400	_____
Bedding				\$160	_____
Tractor Fuel	80	litres	\$0.50	\$40	_____
Tractor Oil & lube				\$6	_____
Repair&Maintenance*				\$1,380	_____
Irrigation*	20	acres	\$55.00	\$1,100	_____
Marketing					_____
.advertising/sales				\$40	_____
.hauling				\$370	_____
TOTAL				\$19,994	_____

Income less Direct Expenses	\$4,536	_____
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*inputs are for the total farm/production area and are not crop specific

Projected Indirect Expenses

Depreciation	.....			Your Farm
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	.....		Your Farm
minus Projected Direct AND Indirect Expenses	.....		_____
		Projected Net Income	=====

Individual Production 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 (ie.repair&maintenance.)

1. Finisher Hogs

Income per hog	Carcass Wt.	Unit	Price	Income	Your Farm
Total Income	192	lbs	\$2.75	\$528	_____

Direct Expenses per hog	Quantity	Unit	Price	Expense	Your Farm
Weaner Pigs (45lbs)	1	hog	\$50.00	\$50	_____
Feed					
.hog grower	165	kg	\$0.38	\$62	_____
.rolled barley	0.08	tonne	\$245.00	\$19	
.minerals/salt				\$3	
Process/Packaging				\$107	_____
Bedding				\$2	_____
Marketing					_____
.advertising				\$2	_____
.hauling				\$2	_____
Total Direct Expenses				\$246	_____
Income less Direct Expenses				\$282	_____

2. Beef Steers

Income per steer	Carcass Wt.	Unit	Price	Income	Your Farm
Total Income	700	lbs	\$2.75	\$1,925	

Direct Expenses	Quantity	Unit	Price	Expense	Your Farm
Steers (800lbs)	1	steer	\$750.00	\$750	
Feed					
.rolled barley	0.54	tonnes	\$245.00	\$132	
.hay	1.44	tonnes	\$150.00	\$216	
.minerals/salt				\$11	
Process/Packaging				\$340	
Bedding				\$14	
Tractor fuel*	80	litres	\$0.50	\$40	
Tractor oil & lube				\$6	
Marketing					
.advertising				\$2	
.hauling				\$35	
Total Direct Expenses				\$1,547	
Income less Direct Expenses				\$378	

*tractor fuel for harrowing pastures in spring before turning cattle out.

Sensitivity Analyses of Individual Farm Product Income Margins

Profitability is strongly influenced by market prices and yield. The tables below illustrate the changes to income margins (ie.income less direct expenses) as prices, carcass weights and feed costs vary.

Price vs. Income less Direct Expenses

	80% of Target Price	90% of Target Price	Target Price	110% of Target Price	120% of Target Price
Income less Direct Expenses	-\$370	\$2,083	\$4,536	\$6,989	\$9,442

Carcass Weights. vs. Income less Direct Expenses

	80% of Target	90% of Target	Target Carcass Wts.	105% of Target	110% of Target
Income less Direct Expenses	-\$299	\$2,119	\$4,536	\$5,745	\$6,953

Feed Costs vs. Income less Direct Expenses

	80% of Target	90% of Target	Target Feed cost	110% of Target	120% of Target
Income less Direct Expenses	\$4,962	\$4,749	\$4,536	\$4,323	\$4,110

Sensitivity Analyses of Individual Farm Product Income Margins

1. Finisher Hogs (per hog)

Price vs. Income less Direct Expenses

	80% of Target Price	90% of Target Price	Target Price	110% of Target Price	120% of Target Price
Price (\$/lb)	\$2.20	\$2.48	\$2.75	\$3.03	\$3.30
Income less Direct Expenses	\$176	\$229	\$282	\$335	\$388

Carcass Weights. vs. Income less Direct Expenses

	80% of Target	90% of Target	Target Carcass Wts.	105% of Target	110% of Target
Carcass Wt. (lbs)	154	173	192	202	211
Income less Direct Expenses	\$192	\$237	\$282	\$312	\$343

Feed Costs vs. Income less Direct Expenses

	80% of Target	90% of Target	Target Feed cost	110% of Target	120% of Target
Hog grower (\$/kg)	\$0.30	\$0.34	\$0.38	\$0.41	\$0.45
Rolled barley (\$/tonne)	\$196	\$221	\$245	\$270	\$294
Income less Direct Expenses	\$298	\$290	\$282	\$274	\$266

2. Finisher Beef (per steer)

Price vs. Income less Direct Expenses

	80% of Target Price	90% of Target Price	Target Price	110% of Target Price	120% of Target Price
Price (\$/lb)	\$2.20	\$2.48	2.75	3.03	\$3.30
Income less Direct Expenses	-\$7	\$186	\$378	\$571	\$763

Carcass Weights. vs. Income less Direct Expenses

	80% of Target	90% of Target	Target Carcass Wts.	105% of Target	110% of Target
Carcass Wt. (lbs)	560	630	700	735	770
Income less Direct Expenses	\$49	\$214	\$378	\$488	\$599

Feed Costs vs. Income less Direct Expenses

	80% of Target	90% of Target	Target Feed cost	110% of Target	120% of Target
Rolled barley (\$/tonne)	\$196.00	\$220.50	\$245.00	\$269.50	\$294.00
Hay (\$/tonne)	\$120.00	\$135.00	\$150.00	\$165.00	\$180.00
Income less Direct Expenses	\$448	\$413	\$378	\$343	\$308

Cash Flow Timing

The table below indicates the monthly flow of income and indirect expenses. It is assumed that farm products are sold from the farm with limited storage (ie. less than 7 days).

	J	F	M	A	M	J	J	A	S	O	N	D
% Income	0	0	0	0	0	0	0	0	20	0	0	80
% Direct Expenses	0	0	0	0	45	1	5	18	0	5	0	26

Investment Capital Replacement Costs

Item	Amount
Buildings,fencing	\$4,000
Tractor	\$5,000
Implements	\$1,000
Vehicles(truck/trailer)	\$15,000
Small Tools & Equipment	\$2,500
Freezer	\$500
Irrigation System	\$18,000
Total	\$46,000

Total Farm Production Labour Requirements (hours)

Task	Hogs	Beef	Farm	Total
Feeding	28	84		112
Bedding	19			19
Ship to/from processor	5			5
Harrowing		10		10
Marketing/Sales	4	4		8
Irrigating		56		56
General Maintenance			40	40
Total:	55.5	154	40	250

References:

- BCMAFF Forage Production Guide - for commercial growers
- BCMAFF - Planning for Profit Budgets -
- Ag - Canada - 1984 - Recommended Code of Practice for Care and Handling of Pigs - Pub - 1771/E
- D - Faulkner,D - Parrett, T - Stoughtenborough - 1998 - Small Scale Beef Production Handbook
- University of Illinois Extension -
- L.A. Ruddy, K.B. Kephart, G. L. Greaser, 2001 - Agricultural Alternatives: Feeding Beef Cattle - Penn State Cooperative Extension.
- J. Comerford, G. Greaser,H. Moore,J. Harper, 1994 - Agricultural Alternatives:Swine Production - Penn State Cooperative Extension.

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Assumptions:

The following assumptions were made in calculating the sample budget:

1. Income & Expenses:

- Projected income and expenses are based on 10 feeder/finisher hogs with limited pasture access (ie - approx - 0.5acre) and 10 finisher beef steers raised on 20 acres good quality pasture. The hog pasture has virtually no feed value.

2. Hogs

- Ten 45lb weaner hogs are purchased in the spring and raised for 110days until 240lbs - Animals are raised in a confined area with limited access to pasture. Average daily gain is 1.8lbs/day.

- Feed costs assume the following:

Hog Grower		
amount:	2.2 kg/day x 10 hogs x 75 days	1,650 kg
costs:	\$7.50 /20kg	\$618.75 total costs
Rolled Barley		
amount:	\$2.20 kg/day x 10hogs x 35 days	0.77 tonnes
costs:	\$245.00 /tonne	\$188.65 total costs
Free Choice minerals:		
amount:	25	
costs:	\$22.50 /25kg	\$22.50 total costs
Free Choice salt:		
amount:	25 kg	
costs:	\$5.40 /25kg	\$5.40 total costs

Purchase price of weaner hogs is \$50/animal.

All processing and packaging is done by a custom processor/packer at a cost of \$040/lb + \$30/animal (no curing and no sausage).

3. Steers

- Ten 800 lb steers are purchased in the spring and raised for 8 months(240days) until 1400lbs - Access to pasture provides the main source of summer feed, with grain and hay for the last four months (120days) of growth.

-Average Daily Gain is 2 -2lbs/day.

-Pasture is approximately 20 acres of divided and irrigated pasture.

-Feed costs for concentrate ration are assumed.

Rolled Barley:		
amount:	4.5 kg/day x 10 steers x 120 days	5.40 tonne
costs:	\$245.00 /tonne (3 tonne min.bulk order delivered)	\$1,323.00 total costs
Grass/legume Hay:		
amount:	12 kg/day x 10 steers x 120 days	14.40 tonnes
costs:	\$150.00 /tonne (3 tonne min.bulk order delivered)	\$2,160.00 total costs
Free Choice minerals:		
amount:	10 kg/steer x 10 steers	100 kg
costs:	\$22.50 /25kg	\$90.00 total costs
Free Choice salt:		
amount:	10 kg/steer x 10 steers	100 kg
costs:	\$5.40 /25kg	\$21.60 total costs

Purchase price of steers is \$750/animal.

All processing and packaging is done by a custom processor/packer at a cost of \$040/lb + \$60/animal.

4 .Marketing Information:

a. Costs

Costs for advertising and sales and are assumed at:		\$40.00
Costs for hauling to and from the processor are limited to fuel costs and are assumed at:		
	\$20.00 hogs	(fuel costs)
	<u>\$350.00</u> beef	(hauling charges of \$35/animal)
	\$370.00 total	

b>Returns:	\$2.75 per lb	192 lbs dressed carcass	\$528.00 per hog
	\$2.75 per lb	700 lbs dressed carcass	\$1,925.00 per steer

5. Labour requirements:

Feeding Hogs: 0.25hr/day x 110 days;	28 hrs
Feeding Steers: 0.2hr/day x 120days + 0.5hr/day x120days(fall)	84 hrs
Bedding/manure removal: 1 hrs/wk x 15wks (hogs); 1 x 4hrs (beef)	19 hrs
Shipping to/from processor: 3 hrs for hogs and 2hrs for steers;	5 hrs
Harrowing: 0.5hr/acre x 20 acres	10 hrs
Marketing/sales: 4hrs for hogs and 4hrs for steers;	8 hrs
Irrigating: 1hr/day x 7 days/wk x 8wks;	56 hrs
<u>General Maintenance: 40hrs per year</u>	<u>40 hrs</u>
Total labour:	250 hrs

6. Repair and Maintenance Costs:

- Tractor fuel for harrowing pasture is calculated as (20acre x 05hr/acre) x 8L/hr fuel consumption x \$050/L.
- Tractor lube & oil assumed at 15% of tractor fuel costs.
- Repair and Maintenance costs are calculated at 3% of investment capital replacement costs.