



PLANNING FOR PROFIT



BRITISH
COLUMBIA

Ministry of Agriculture
and Food

Bison
Peace River
Spring 1995

Agdex 481-810

Introduction

The planning process provides producers with the opportunity to look at their operation as a group of distinct enterprises. Alternative enterprises should be evaluated on the basis of **Contribution Margin**, taking into consideration resource constraints, market opportunity, risk and uncertainty.

The **Contribution Margin** must provide funds for interest, overhead and other indirect expenses as well as a return for living expenses, loan repayment and investment. These items should be included in the overall farm plan which will include a **Projected Income Statement** and **Projected Cash Flow Statement**.

Key Factors Affecting Profit

	Target
Heifer Calf Value	\$2300
Weaning %	90%
Liveweight Carcass Value	\$1.60

Selection of good breeding stock will ensure that the cows produce saleable heifers and bull calves with good weight gain. It is important to replace bulls on a regular basis to avoid inbreeding.

Flushing the herd prior to the breeding season is important to ensure a good calf crop.

Shipping and handling practices affect profit through weight loss and shrinkage, therefore it is important to practice good feed management at shipping and reduce animal stress levels through proper handling.

This budget was prepared assuming a four month winter feeding period. A producer with a smaller land base may wish to feed for a longer period of time, and feed expenses would increase accordingly.

Marketing Alternatives

Marketing alternatives for bison include sale of breeding stock to other ranchers, and sale of slaughter bulls for the meat market. There is currently a high demand for breeding stock, causing prices to be high. These prices are not sustainable in a meat market, and it is expected that prices will level off or decline. Full federal inspection allows the marketing of bison outside the province.

Cash Flow Timing

	J	F	M	A	M	J	J	A	S	O	N	D
%Inc	35	14				13				13		25
%Exp	5				10			20		25	40	

The above information indicates the timing of monthly flow of funds included in the **Contribution Margin** only. A complete **Projected Cash Flow** should include indirect expenses, capital sales and purchases, loans and personal expenses.

Rules of Thumb

Investment	\$5100/cow
Direct Expense % of Income	20%-30%

Agriculture Canada requires mandatory health testing of animals. Currently, there is no charge for this, but they may begin to charge in the near future.

The above indicators are provided for comparison purposes. They are set out as potential targets for bison production.

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BISON**Weaning Percentage - 90%****Contribution Margin
100 Cow Bison Ranch
Peace River****Income**

	Head	Average Weight	Price	Income
Slaughter Bulls	40	1100	\$1.60	\$70,400
Heifer Calves	40	375	2,300**	92,000
Yearling Bulls	5	850	1,400**	7,000
Cull Bulls	5	1500	1.00	7,500
Cull Cows	5	1000	0.75	3,750
Total Income				\$180,650

Direct Expenses

	Quantity	Unit	Price /Unit	Total Expense
Purchased Feed				
Hay:				
Cows	120	tons	40	\$4,800
Bulls	15	tons	40	600
Young Heifers	3	tons	40	120
Young Bulls	88	tons	40	3,520
Grain:				
Feeder Bulls	54	tons	65	3,510
Feed Supplements				
Salt & Minerals	2	tonne	700	1,400
Bull Purchase	5	bulls	2,800	14,000
Supplies & Services				
Vet & Medicine				2,000
Fuel, Oil & Lubrication				3,500
Machinery Repair & Maintenance				1,500
Fence & Corral Repairs				1,500
Custom Pasture Renovation				4,400
Total Direct Expense				\$40,850
Contribution Margin				\$139,800

**These figures are based on current market prices, which reflect a strong market for breeding stock. This income level is not sustainable over the long term and prices will eventually decline to meat.

**Buildings and Machinery
and Livestock Investment
Total Farm Size - 1,280 Acres**

Breeding Stock	\$420,000
Farm Equipment	20,000
Fencing	38,500
Handling Facilities	10,000
Watering Facilities	10,000
Vehicle	12,000
Total	\$510,500

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**Contribution Margin -
Sensitivity Analysis**

The table below lists the changes to contribution margin as price received for slaughter bulls and heifer calves varies.

Heifer Calf (\$)	Liveweight \$/lb.			
	1.00	1.30	1.60	1.75
600	45,400	58,600	71,800	78,400
1,200	69,400	82,600	95,800	102,400
1,800	93,400	106,600	119,800	126,400
2,300	113,400	126,600	139,800	146,400

This information is provided as a guideline only. Target yield indicates above average production. An individual crop plan should be developed by each producer. Planning forms may be obtained from your local office of the B.C. Ministry of Agriculture, Fisheries and Food.