

**Guidelines For Estimating  
Bison Bull Finishing Costs  
For Weight Range of 490 -1075 lbs  
Based on 300 Head**

Date: January, 2002

This guide is designed to provide you with planning information and a format for calculating costs of production of a bison bull finishing enterprise. The production costs included in this enterprise budget are not intended as a cost study of the bison industry in Manitoba.

The budget estimates are based on a number of assumptions which are clearly defined in the supporting pages. Input costs are based on recommended practices and/or information obtained from producers. Good management is assumed in that a balanced feeding program is being used, bison are on a herd health program and handling facilities are included.

The guideline can be useful for comparison purposes. Comparison of costs at different levels of production can be made with other farms, the farm over a period of time or comparing the plan with the actual results at the end of the planning period.

The budget may be adjusted to reflect your unique situation by substituting your own figures in the appropriate places. Each bison producer is encouraged to determine their own costs of production based on their own inputs, pasture program and level of management.

Also available, on the Manitoba Agriculture and Food website, is an Excel spreadsheet and it can be downloaded from the following address:

**<http://www.gov.mb.ca/agriculture>**.

## Bison Bull Finishing Cost- Summary

Based on 300 head

A. Operating Costs	<u>Cost/Head</u>	<u>Total Cost</u>	<u>Your Cost</u>
<b>1. Feed Costs</b>			
1.01 Complete Ration	\$107.21	32,163	_____
1.02 Grass Hay	\$79.80	23,940	_____
1.03 Salt & Minerals	\$4.06	1,218	_____
1.04 Pasture Costs	<u>\$91.00</u>	<u>27,300</u>	_____
<b>Total Feed Costs</b>	<b>\$282.07</b>	<b>\$84,621</b>	_____
<b>2. Other Operating Costs</b>			
2.01 Feeder Cost	593.00	177,900	_____
2.02 Straw	3.00	900	_____
2.03 Veterinary Medicine & Supplies	5.73	1,719	_____
2.04 Annual Fuel & Repair Costs	10.00	3,000	_____
2.05 Utilities	6.67	2,001	_____
2.06 Trucking Costs	39.29	11,786	_____
2.07 Insurance	8.47	2,541	_____
2.08 Manure Removal	5.00	1,500	_____
2.09 Barn & Office Supplies	3.33	999	_____
2.10 Death Loss	<u>7.55</u>	<u>2,265</u>	_____
Subtotal Operating Costs	964.11	289,232	_____
2.11 Operating Interest	<u>45.94</u>	<u>13,781</u>	_____
<b>Total Operating Costs</b>	<b>\$1,010.04</b>	<b>\$303,013</b>	_____
<b>B. Fixed Costs</b>			
<b>3. Depreciation</b>			
3.01 Buildings	15.17	4,551	_____
3.02 Machinery & Equipment	16.17	4,851	_____
<b>4. Investment</b>			
4.01 Buildings	6.07	1,821	_____
4.02 Machinery & Equipment	<u>5.21</u>	<u>1,563</u>	_____
<b>Total Fixed Costs</b>	<b>\$42.62</b>	<b>\$12,786</b>	_____
<b>Total Operating and Fixed Costs</b>	<b>\$1,052.66</b>	<b>\$315,799</b>	_____
<b>C. Labour</b>	<b>\$30.00</b>	<b>\$9,000</b>	_____
<b>Total Cost of Production</b>	<b>\$1,082.66</b>	<b>\$324,799</b>	_____
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<b>Breakeven Selling Price</b>	<b><u>\$/lb</u></b>		
<b>Operating Costs</b>	<b>\$1.00</b>		_____
<b>Operating &amp; Fixed</b>	<b>\$1.04</b>		_____
<b>Total Costs</b>	<b>\$1.07</b>		_____

**Disclaimer:** This budget is only a guide and is not intended as an in-depth study of the cost of production of this industry. Interpretation and utilization of this information is the responsibility of the user. No liability for decisions based on this publication is assumed. If you require assistance with developing your individual budget, please contact your local MAF Office or the Farm Management Section in Winnipeg at

## Bison Bull Finishing Costs - Input

### Herd Profile

Number of Feeders Purchased	<b>300</b>	head
Feeder Bull Mortality Rate	<b>1.00</b>	%
Feeder Purchased Weight	<b>490</b>	lbs
Feeder Bull Price	<b>\$120.00</b>	/cwt
Finish Weight	<b>1,075</b>	lbs
Feeder Selling Price	<b>\$0.00</b>	/cwt
Percent Shrink - finished	<b>6.00</b>	%
Percent Shrink - feeder	<b>3.00</b>	%
Average Daily Gain	<b>1.65</b>	lbs/day
Dressing Percentage	<b>57.00</b>	%
Days On Feed	<b>363</b>	days

Footnote: 1 kilogram (kg) = 2.2046 pounds (lbs)

Feed Costs	Cost	Feeder Cattle Requirement
Complete Ration	<b>\$0.0625</b> /lb	<b>16.50</b> lbs/day
Grass Hay	<b>\$40.00</b> /ton	<b>8.00</b> lbs/day
Barley Silage	<b>\$0.00</b> /ton	<b>0.00</b> lbs/day
Grass Hay	<b>\$60.00</b> /ton	<b>20.00</b> lbs/day
Canola Meal	<b>\$0.00</b> /lb	<b>0.00</b> lbs/day
Salt	<b>\$0.14</b> /lb	<b>9.00</b> lbs/year
Mineral	<b>\$0.40</b> /lb	<b>7.00</b> lbs/year

### Pasture Costs

days	<b>140</b>
	<b>\$0.65</b>

### Other Operating Costs

#### Straw

Annual Requirement	<b>0.125</b>	tonnes/feeder
Cost	<b>\$24.00</b>	/tonne

#### Veterinary Medicine & Supplies

Feeder Medication		
Blackleg (8 way vaccine)	<b>\$0.55</b>	/feeder
Vitamin	<b>\$0.00</b>	/feeder
Parasite Control	<b>\$3.80</b>	/feeder

Herd Health Program	
Professional Services	
Total Yearly Hours	3 hours
Rate	\$90.00 /hour

Transportation	
Total Distance (round trip)	160 km
Charge per km	\$0.90
Number of yearly visits	1

**Annual Fuel & Repair Costs**

Repairs (Machinery, Equipment & Facilities)	\$1,000.00
Fuel Costs	\$2,000.00

**Utilities**

Yearly Telephone & Hydro	\$2,000.00
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**Trucking to Feedlot**

Distance to packing plant	150 miles
Trucking cost	\$3.00 /loaded mile
Number of head per load	90

**Trucking Cost**

Trucking cost	Rate/loaded mile	\$3.00 /loaded mile
	Milage, distance to market	550 miles
	Truck capacity # head	42 head

**Manure Removal**

Annual cost for removal	\$1,500.00
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**Insurance**

Cost per \$100 Capital Invested in:	
Livestock	\$0.85
Buildings & Equipment	\$0.60
Additional Coverage for Liability	\$30.00

**Barn & Office Supplies**

Total yearly expense relating to barn	\$1,000.00
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<b>Operating Interest Rate</b>	<b>6.00</b> %
<b>Investment Interest Rate</b>	<b>4.00</b> %

Footnote: cwt = hundred-weight = 100 lbs

## Capital Costs

	Original Value	Salvage Value	Useful Life
<b>Handling Facilities</b>			
Land & Landscaping	\$10,000		
Waterers	\$6,000		
Squeeze, Gates & Scale	\$29,500		
Well & Pressure System	\$3,500		
Pens (Working & Sorting)	\$42,000		
<b>Total Building Cost</b>	<b>\$91,000</b>	<b>0 %</b>	<b>20 years</b>
<b>Machinery &amp; Equipment</b>			
Self Feeder	\$13,200	0 %	12 years
Hay Feeders	\$2,500		
Miscellaneous	\$2,500		
Tractor & Loader	\$50,000	20 %	12 years
<b>Total</b>	<b>\$68,200</b>		
<b>Total Capital Investment</b>	<b>\$159,200</b>		

## Labour Costs

Hours	3.0 head/year
Wage	\$10.00 /hour

## Bison Bull Finishing Cost Worksheet Based on 300 head

### Assumptions

1. This budget assumes the weaning and/or purchase weight of bison bull calves to be approximately 490 lbs. Finish weight would be assumed to be 1075 lbs.
2. This budget assumes a shrink (lot to slaughter plant) of 6 %. Shrunk Weight weight = 1011 lbs.
3. Average Daily Gain = 1.65 lbs per day.
4. Time frame from start to finish is approximately 363 days, 90 days on finishing ration and 133 days backgrounding ration and 140 days pasture.
5. Grain ration is prepared (minerals and salt included).
6. This budget is based an a finishing enterprise of 300 bulls.

### A. Operating Costs

#### 1. Feed Costs

##### 1.01 Complete Ration

		<u>Your Cost</u>
90 days on ration		
x 16.5 lbs/feeder/day		
x <u>\$0.06</u> /lb		
= \$92.81 /feeder		
90 days on hay		
x 8 lbs/feeder/day		
x <u>\$40</u> /ton		
= 14.40 /feeder		
<b>= \$107.21 /feeder</b>		

**Your Cost**

**1.02 Grass Hay**

133 days on hay  
 x 20.0 lbs/feeder/day  
 = 1.330 tons fed  
 x \$60.00 /ton  
 = **\$79.80 /feeder**

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**1.03 Salt & Minerals**

9 lbs/year  
 x \$0.14 \$/lb  
 = \$1.26 /feeder

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7 lbs/year  
 x \$0.40 \$/lb  
 = \$2.80 /feeder

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= **\$4.06 /feeder**

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**1.04 Pasture Costs**

\$0.65 \$/head/day  
 x 140 days on pasture  
 = \$91.00 /feeder

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**2. Other Operating Costs**

**2.01 Feeder Bison Cost**

490 lbs/feeder  
 x \$120.00 /cwt  
 ÷ 100 lbs/cwt  
 = \$588.00 /feeder

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150 miles  
 x \$3.00 \$/loaded mile  
 ÷ 90 head load capacity  
 = \$5.00 /feeder

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= **\$593.00 /feeder**

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			<u>Your Cost</u>
<b>2.02 Straw</b>			
		0.13 tonnes/feeder/year	_____
x	<u>\$24.00</u>	/tonne	_____
=	<b>\$3.00</b>	<b>/feeder</b>	_____
<b>2.03 Veterinary Medicine &amp; Supplies</b>			
Medication			
	\$0.55	blackleg	_____
+	\$0.00	vitamin	_____
+	<u>\$3.80</u>	<u>parasite control</u>	_____
=	\$4.35	/feeder	_____
Herd health program			
	\$90.00	/hour charge	_____
x	3	hours	_____
÷	<u>300</u>	<u>feeders</u>	_____
=	\$0.90	/feeder	_____
Mileage			
	\$0.90	/km charge	_____
x	160	kilometres	_____
x	1	visits	_____
÷	<u>300</u>	<u>feeders</u>	_____
=	\$0.48	/feeder	_____
<b>Total</b>	<b>=</b>	<b>\$5.73 /feeder</b>	_____
<b>2.04 Annual Fuel &amp; Repair Costs</b>			
	\$1,000	repairs	_____
+	\$2,000	fuel costs	_____
÷	<u>300</u>	<u>feeders</u>	_____
=	<b>\$10.00</b>	<b>/feeder</b>	_____
<b>2.05 Utilities</b>			
	\$2,000	cost/year	_____
÷	<u>300</u>	<u>feeders</u>	_____
=	<b>\$6.67</b>	<b>/feeder</b>	_____

			<u>Your Cost</u>
<b>2.06 Trucking Costs</b>			
	\$3.00	\$/loaded mile	_____
x	550	distance miles	_____
÷	<u>42</u>	<u>head load capacity</u>	_____
=	<b>\$39.29</b>	<b>/feeder</b>	_____
<b>2.07 Insurance</b>			
	\$159,200	building & equipment investment	_____
x	\$0.60	cost/\$100 capital	_____
÷	100		_____
÷	<u>300</u>	<u>feeders</u>	_____
=	\$3.18	/feeder	_____
	\$588	feeder investment	_____
x	\$0.90	cost/\$100 capital	_____
÷	<u>100</u>		_____
=	\$5.29	/feeder	_____
Total	=	<b>\$8.47 /feeder</b>	_____
<b>2.08 Manure Removal</b>			
	\$1,500	annual removal cost	_____
÷	<u>300</u>	<u>feeders</u>	_____
=	<b>\$5.00</b>	<b>/feeder</b>	_____
<b>2.09 Barn &amp; Office Supplies</b>			
	1,000	total barn expenses	_____
÷	<u>300</u>	<u>feeders</u>	_____
=	<b>\$3.33</b>	<b>/feeder</b>	_____
<b>2.10 Death Loss</b>			
	\$593.00	feeder cost	_____
+	\$141.04	½ of feed	_____
+	\$21.10	½ other (excluding marketing)	_____
x	<u>1.0</u>	<u>% mortality</u>	_____
=	<b>\$7.55</b>	<b>/feeder</b>	_____

**2.11 Operating Interest**

	\$588.00	feeder cost
+	\$181.78	½ of feed & other costs
x	6.0	% operating interest
x	363	days on feed
÷	<u>365</u>	<u>365 days per year</u>
=	<b>\$45.94</b>	<b>/feeder</b>

**Your Cost**

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Your Cost

**Capital Investment**

**Handling Facilities**

Land & Landscaping	<b>\$10,000</b>	_____
Waterers	<b>\$6,000</b>	_____
Squeeze, Gates & Scale	<b>\$29,500</b>	_____
Well & Pressure System	<b>\$3,500</b>	_____
Pens (Working & Sorting)	<b><u>\$42,000</u></b>	_____
<b>Total Building Cost</b>	<b>\$91,000</b>	_____

**Machinery & Equipment**

Self Feeder	<b>\$13,200</b>	_____
Hay Feeders & Miscellaneous	<b>\$2,500</b>	_____
Miscellaneous	<b>\$2,500</b>	_____
Tractor & Loader	<b><u>\$50,000</u></b>	_____
<b>Total</b>	<b>\$68,200</b>	_____
<b>Total Capital Investment</b>	<b>\$159,200</b>	_____

**B. Fixed Costs**

**3. Depreciation**

$$\frac{\text{Original Cost} - \text{Salvage Value}}{\text{Useful Life}}$$

**3.01 Buildings**

	\$91,000	original value	_____
-	\$0	salvage value	_____
÷	20	years useful life	_____
÷	<u>300</u>	<u>feeders</u>	_____
=	<b>\$15.17</b>	<b>/feeder</b>	_____

**3.02 Machinery & Equipment**

	\$68,200	original value	_____
-	\$10,000	salvage value	_____
÷	12	years useful life	_____
÷	<u>300</u>	<u>feeders</u>	_____
=	<b>\$16.17</b>	<b>/feeder</b>	_____

**Your Cost**

**4. Investment**

$$\frac{\text{Original Cost} + \text{Salvage Value}}{2} \times \text{Investment Rate}$$

**4.01 Buildings**

	\$91,000	total building value	_____
+	\$0	salvage value	_____
÷	2	average	_____
x	4.00	% investment interest	_____
÷	<u>300</u>	<u>feeders</u>	_____
<b>=</b>	<b>\$6.07</b>	<b>/feeder</b>	_____

**4.02 Machinery & Equipment**

	\$68,200	original value	_____
+	\$10,000	salvage value	_____
<b>=</b>	<b>\$78,200</b>		_____
÷	2	average	_____
x	4.00	% investment interest	_____
÷	<u>300</u>	<u>feeders</u>	_____
<b>=</b>	<b>\$5.21</b>	<b>/feeder</b>	_____

**C. Labour**

	3.0	hours/feeder/year	_____
x	<u>\$10.00</u>	<u>/hour</u>	_____
<b>=</b>	<b>\$30.00</b>	<b>/feeder</b>	_____

**For further assistance contact your local Manitoba Agriculture and Food office**

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