

**Guidelines For Estimating
Bison Bull Finishing Costs
For Weight Range of 525 -1075 lbs
Based on 25 Head**

Date: January, 2002

This guide is designed to provide you with planning information and a format for calculating costs of production associated with feeding 25 bison feeder bulls from weaning to finish. The production costs included in this guide 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 25 head

	<u>Cost/Head</u>	<u>Total Cost</u>	<u>Your Cost</u>
A. Operating Costs			
1. Feed Costs			
1.01 Complete Ration	\$107.21	\$2,680	
1.02 Grass Hay	\$70.20	\$1,755	
1.03 Salt & Mineral	\$4.06	\$102	
1.04 Pasture Cost	<u>\$58.50</u>	<u>\$1,463</u>	
Total Feed Costs	\$239.97	\$6,000	
2. Other Operating Costs			
2.01 Feeder Cost	\$630.00	\$15,750	
2.02 Straw	\$3.00	\$75	
2.03 Veterinary Medicine & Supplies	\$17.31	\$433	
2.04 Annual Fuel & Repair Costs	\$16.00	\$400	
2.05 Utilities	\$8.00	\$200	
2.06 Transportation Costs	\$35.71	\$893	
2.07 Insurance	\$10.97	\$274	
2.08 Manure Removal	\$8.00	\$200	
2.09 Barn & Office Supplies	\$4.00	\$100	
2.10 Death Loss	<u>\$7.84</u>	<u>\$196</u>	
Subtotal Operating Costs	\$980.80	\$24,521	
2.11 Operating Interest	<u>\$39.13</u>	<u>\$978</u>	
Total Operating Costs	\$1,019.94	\$25,499	
B. Fixed Costs			
3. Depreciation			
3.01 Buildings	\$13.75	\$344	
3.02 Machinery & Equipment	\$42.33	\$1,058	
4. Investment			
4.01 Buildings	\$5.50	\$138	
4.02 Machinery & Equipment	<u>\$14.16</u>	<u>\$354</u>	
Total Fixed Costs	\$75.74	\$1,894	
Total Operating and Fixed Costs	\$1,095.68	\$27,393	
C. Labour			
	\$40.00	\$1,000	
Total Cost of Production	\$1,135.68	\$28,393	
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Breakeven Selling Price	<u>\$/lb</u>		
Operating Costs	\$1.01		
Operating & Fixed	\$1.08		
Total Costs	\$1.12		

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	25	head
Feeder Bull Mortality Rate	1.00	%
Feeder Purchased Weight	525	lbs
Feeder Bull Price	\$120.00	/cwt
Finish Weight	1,075	lbs
Feeder Selling Price	\$0.00	/cwt
Percent Shrink - finished	6.00	%
Percent Shrink - feeder	0.00	%
Average Daily Gain	1.85	lbs/day
Dressing Percentage	57	%
Days On Feed	297	days

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

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

Pasture Costs

Rental Cost per day	\$0.65	\$/day
Days on pasture	90	days

Other Operating Costs

Straw

Annual Requirement	0.125	tonnes/feeder
Cost	\$24.00	/tonne

Veterinary Medicine & Supplies

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

Herd Health Program	
Professional Services	
Total Yearly Hours	2 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)	\$200.00
Fuel Costs	\$200.00
Utilities	
Yearly Telephone & Hydro	\$200.00
Trucking to Feedlot	
Distance to packing plant	0 miles
Trucking cost	\$0.00 /loaded mile
Number of head per load	0
Transportation Cost	
Trucking cost Rate/loaded mile	\$3.00 /loaded mile
Milage, distance to market	500 miles
Number Trucked	42 head
Manure Removal	
Annual cost for removal	\$200.00
Insurance	
Cost per \$100 Capital Invested in:	
Livestock	\$0.45
Buildings & Equipment	\$0.60
Additional Coverage for Liability	\$30.00
Barn & Office Supplies	
Total yearly expense relating to barn	\$100.00
Operating Interest Rate	6.00 %
Investment Interest Rate	4.00 %

Capital Costs

	<u>Original Value</u>	<u>Salvage Value</u>	<u>Useful Life</u>
Handling Facilities			
Holding Chutes	\$1,500	0 %	20 years
Waterers	\$500	0 %	20 years
Squeeze, Gates & Scale	\$1,500	0 %	20 years
Well & Pressure System	\$875	0 %	20 years
Pens (Working & Sorting)	<u>\$2,500</u>	<u>0 %</u>	<u>20 years</u>
Total Building Cost	\$6,875	0 %	20 years
Machinery & Equipment			
Self Feeder	\$2,200	0 %	12 years
Hay Feeders & Miscellaneo	\$500	0 %	20 years
Tractor & Loader	<u>\$12,500</u>	<u>20 %</u>	<u>12 years</u>
Total	\$15,200		
Total Capital Investment	\$22,075		
Labour Costs			
Hours		4.0 head/year	
Wage		\$10.00 /hour	

Bison Bull Finishing Cost Worksheet Based on 25 head

Assumptions

1. This budget assumes the weaning and/or purchase weight of bison bull calves to be approximately 525 lbs. Finish weight would be assumed to be 1075 lbs.
2. This budget assumes a shrink (lot to slaughter plant) of 6 %. Shrunk weight = 1011 lbs.
3. Average Daily Gain = 1.85 lbs per day.
4. Time frame from start to finish is approximately 297 days, 90 days finishing and and 117 days backgrounding and 90 days on pasture.
5. Grain ration is prepared (minerals and salt included).
6. This budget is based an a finishing enterprise of 25 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>	<u>/lb</u>			
=	\$92.81	/feeder			
	90	days on hay			
x	8	lbs/feeder/day			
x	<u>\$40</u>	<u>/lb</u>			
=	\$14.40	/feeder			
=	\$107.21	/feeder			

Your Cost

1.02 Grass Hay

	117	days on hay
x	20.0	lbs/feeder/day
=	1.170	tons fed
x	<u>\$60.00</u>	<u>/ton</u>
=	\$70.20	/feeder

1.03 Salt & Minerals

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

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

=	\$4.06	/feeder
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1.04 Pasture Costs

	\$0.65	\$/head/day
x	90	<u>days on pasture</u>
=	\$58.50	/feeder

2. Other Operating Costs

2.01 Feeder Bison Cost

	525	lbs/feeder
x	120.00	/cwt
÷	<u>100</u>	<u>lbs/cwt</u>
=	\$630.00	/feeder

2.02 Straw

	0.13	tonnes/feeder/year
x	<u>\$24.00</u>	<u>/tonne</u>
=	\$3.00	/feeder

Your Cost

2.03 Veterinary Medicine & Supplies

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	2	hours
÷	<u>25</u>	<u>feeders</u>
=	\$7.20	/feeder

Mileage

	\$0.90	/km charge
x	160	kilometres
x	1	visits
÷	<u>25</u>	<u>feeders</u>
=	\$5.76	/feeder

Total = \$17.31 /feeder

2.04 Annual Fuel & Repair Costs

	\$200.00	repairs
+	\$200.00	fuel costs
÷	<u>25</u>	<u>feeders</u>
=	\$16.00	/feeder

2.05 Utilities

	\$200.00	cost/year
÷	<u>25</u>	<u>feeders</u>
=	\$8.00	/feeder

2.06 Transportation Costs

	\$3.00	\$/loaded mile
x	500	distance
÷	<u>42</u>	<u>load capacity</u>
=	\$35.71	/feeder

			<u>Your Cost</u>
2.07 Insurance			
	\$22,075	building & equipment investment	_____
x	\$0.60	cost/\$100 capital	_____
÷	100		_____
÷	<u>25</u>	<u>feeders</u>	_____
=	\$5.30	/feeder	_____
	\$630	feeder investment	_____
x	\$0.90	cost/\$100 capital	_____
÷	<u>100</u>		_____
=	\$5.67	/feeder	_____
Total	=	\$10.97 /feeder	_____
2.08 Manure Removal			
	\$200.00	annual removal cost	_____
÷	<u>25</u>	<u>feeders</u>	_____
=	\$8.00	/feeder	_____
2.09 Barn & Office Supplies			
	\$100.00	total barn expenses	_____
÷	<u>25</u>	<u>feeders</u>	_____
=	\$4.00	/feeder	_____
2.10 Death Loss			
	\$630.00	feeder cost	_____
+	\$119.99	½ of feed	_____
+	\$33.64	½ other (excluding marketing)	_____
x	<u>1.0</u>	<u>% mortality</u>	_____
=	\$7.84	/feeder	_____
2.11 Operating Interest			
	\$630.00	feeder cost	_____
+	\$171.48	½ of feed & other costs	_____
x	6.0	% operating interest	_____
x	297	days on feed	_____
÷	<u>365</u>	<u>365 days per year</u>	_____
=	\$39.13	/feeder	_____

Your Cost

Capital Investment

Handling Facilities

Holding Chutes	\$1,500	_____
Waterers	\$500	_____
Squeeze, Gates & Scale	\$1,500	_____
Well & Pressure System	\$875	_____
Pens (Working & Sorting)	<u>\$2,500</u>	_____
Total Building Cost	\$6,875	_____

Machinery & Equipment

Self Feeder	\$2,200	_____
Hay Feeders & Miscellaneous	\$500	_____
Tractor & Loader	<u>\$12,500</u>	_____
Total	\$15,200	_____

Total Capital Investment	\$22,075	_____
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B. Fixed Costs

3. Depreciation

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

3.01 Buildings

	\$6,875	original value	_____
-	\$0	salvage value	_____
÷	20	years useful life	_____
÷	<u>25</u>	<u>feeders</u>	_____
=	\$13.75	/feeder	_____

3.02 Machinery & Equipment

	\$15,200	original value	_____
-	\$2,500	salvage value	_____
÷	12	years useful life	_____
÷	<u>25</u>	<u>feeders</u>	_____
=	\$42.33	/feeder	_____

Your Cost

4. Investment

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

4.01 Buildings

	\$6,875	total building value	_____
+	\$0	salvage value	_____
÷	2	average	_____
x	4.00	% investment interest	_____
÷	<u>25</u>	<u>feeders</u>	_____
=	\$5.50	/feeder	_____

4.02 Machinery & Equipment

	\$15,200	original value	_____
+	\$2,500	salvage value	_____
=	\$17,700		_____
÷	2	average	_____
x	4.00	% investment interest	_____
÷	<u>25</u>	<u>feeders</u>	_____
=	\$14.16	/feeder	_____

C. Labour

	4.0	hours/feeder/year	_____
x	<u>\$10.00</u>	<u>/hour</u>	_____
=	\$40.00	/feeder	_____

For further assistance contact your local Manitoba Agriculture and Food office

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