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2023/2025 Cost of Production

# Bison Cow-Calf





Guidelines For Estimating  
**Bison Cow-Calf Production Costs**  
Based on a 100 Head Cow Herd

**Date: October, 2022**

This guide is designed to provide you with planning information and a format for calculating costs of production of a bison cow calf enterprise in Manitoba. General Manitoba Agriculture recommendations are assumed in using feed and veterinary inputs. These figures provide an economic evaluation of the livestock and estimated prices required to cover all costs. Costs include labour, investment and depreciation, but do not include management costs, nor do they necessarily represent the average cost of production in Manitoba.

These budgets may be adjusted by putting in your own figures. As a producer you are encouraged to calculate your own costs of production. Good management is assumed in that a balanced ration is being fed, livestock are on a herd health program and handling facilities are included.

This tool is available as an Excel worksheet at:



[\*The Farm Machinery Custom and Rental Rate Guide\*](#) is also available to help determine machinery costs.

**Note:** 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 use of this information is the responsibility of the user. If you need help with a budget, contact a Farm Management Specialist.

**Bison Cow-Calf Production Costs - Summary**

<b>A. Operating Costs</b>	<b><u>\$/Cow</u></b>	<b><u>Total</u></b>	<b><u>Your Costs</u></b>
1. Feed Costs			
1.01 Grain	\$50.88	\$5,088	_____
1.02 Hay	\$383.40	\$38,340	_____
1.03 Salt & Minerals	\$42.88	\$4,288	_____
1.04 Creep Feed	\$0.00	\$0	_____
1.05 Extended Grazing Forages	<u>\$29.63</u>	<u>\$2,963</u>	_____
<b>Total Feed Cost</b>	<b>\$506.79</b>	<b>\$50,679</b>	_____
2. Other Operating Costs			
2.01 Veterinary Medicine & Supplies	\$18.87	\$1,887	_____
2.02 Fuel, Maintenance & Repairs	\$59.40	\$5,940	_____
2.03 Utilities	\$11.60	\$1,160	_____
2.04 Marketing & Transportation	\$37.06	\$3,706	_____
2.05 Death Loss	\$71.16	\$7,116	_____
2.06 Insurance	\$17.68	\$1,768	_____
2.07 Herd Replacement	\$65.80	\$6,580	_____
2.08 Miscellaneous	\$10.00	\$1,000	_____
2.09 Land Taxes	<u>\$20.00</u>	<u>\$2,000</u>	_____
Subtotal Operating Costs	\$818.35	\$81,836	_____
2.10 Operating Interest	<u>\$31.71</u>	<u>\$3,171</u>	_____
<b>Total Operating Costs</b>	<b>\$850.06</b>	<b>\$85,007</b>	_____
<b>B. Fixed Costs</b>			
3. Depreciation			
3.01 Facilities	\$31.63	\$3,163	_____
3.02 Machinery & Equipment	\$98.40	\$9,840	_____
3.03 Fencing	\$31.71		_____
4. Investment			
4.01 Facilities	\$9.49	\$949	_____
4.02 Machinery & Equipment	\$22.14	\$2,214	_____
4.03 Livestock	\$97.74	\$9,774	_____
4.03 Pasture Land & Fencing	<u>\$137.01</u>	<u>\$13,701</u>	_____
<b>Total Fixed Costs</b>	<b>\$428.12</b>	<b>\$39,641</b>	_____
<b>Total Operating and Fixed Costs</b>	<b>\$1,278.18</b>	<b>\$124,648</b>	_____
<b>C. Labour</b>	<b>\$104.00</b>	<b>\$10,400</b>	_____
<b>Total Cost of Production</b>	<b>\$1,382.18</b>	<b>\$135,048</b>	_____

**Profitability and Breakeven Analysis**

<b>Estimated Farmgate</b>	<b><u>Per Cow</u></b>	<b><u>Total</u></b>
Price (\$ per cwt)	<u>\$176.27</u>	
Calf weight (lbs)	<b>463</b>	
Gross Revenue / cow	<b>\$718.19</b>	<b>\$71,819</b>
<b>Marginal Returns</b>		
Over Operating Costs	<b>-\$131.87</b>	<b>-\$13,187</b>
Over Operating & Labour Costs	<b>-\$235.87</b>	<b>-\$23,587</b>
Over Operating & Fixed Costs	<b>-\$559.99</b>	<b>-\$55,999</b>
Over Total Costs (Net Profit)	<b>-\$663.99</b>	<b>-\$66,399</b>
<b>Operating Expense Ratio</b>	<b>118.4%</b>	
<b>Breakeven selling price/head</b>	<b><u>\$/head</u></b>	<b><u>\$/cwt</u></b>
Operating Costs	\$965.98	\$208.64
Operating & Labour Costs	\$968.25	\$209.12
Operating & Fixed Costs	\$1,452.48	\$313.71
Operating, Labour & Fixed Cost	\$1,570.66	\$339.24
Breakeven Price/head = Cost ÷ % calf crop		

**Cost Summary Per Cow Per Day**

Summer grazing (based on 170 days)	\$1.110
Extended grazing (based on 30 days)	\$0.988
Winter feed (based on 165 days)	\$2.892
Yardage (based on 195 days)	\$1.567
<b>Total Overwinter Costs (based on 195 days)</b>	<b>\$4.166</b>

**Note:** This budget is only a guide and is not intended to be 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.



**Risk & Sensitivity Analysis**

	Per Cow
<b>A. Operating Costs</b>	\$850.06
<b>B. Fixed Costs</b>	\$428.12
<b>C. Labour</b>	\$104.00
<b>Total Costs</b>	\$1,382.18
<b>Estimated Farmgate</b>	
Price (\$ per cwt)	\$176.27
Calf Crop %	88.00
Calf weight (lbs)	463

	Up	Down
<b>Percent Price Variation</b>	<b>5%</b>	<b>10%</b>
<b>Percent Calf Crop Variation</b>	<b>1.0%</b>	<b>5.0%</b>
<b>Percent Calf Weight Variation</b>	<b>5%</b>	<b>5%</b>

<b>Higher Price (\$ per cwt)</b>	\$185.08
<b>Lower Price (\$ per cwt)</b>	\$158.64
<b>Higher Calf Crop %</b>	89.0
<b>Lower Calf crop %</b>	83.0
<b>Higher Calf Weight</b>	486.2
<b>Lower Calf Weight</b>	439.9

**Higher Margin Scenario - Price Up 5%, Calf Crop Up 1% and Calf Weight Up 5%**

<b>Gross Revenue per Cow</b>	\$800.81
<b>Marginal Returns</b>	
Over Operating Costs	(\$49.26)
Over Operating & Labour Costs	(\$153.26)
Over Operating & Fixed Costs	(\$477.38)
Over Total Costs (Net Profit)	(\$581.38)
<b>Operating Expense Ratio</b>	106.2%

**Lower Margin Scenario - Price Down 10%, Calf Crop Down 5% and Calf Weight Down 5%**

<b>Gross Revenue per Cow</b>	\$579.17
<b>Marginal Returns</b>	
Over Operating Costs	(\$270.90)
Over Operating & Labour Costs	(\$374.90)
Over Operating & Fixed Costs	(\$699.02)
Over Total Costs (Net Profit)	(\$803.02)
<b>Operating Expense Ratio</b>	146.8%

**Estimated Breakeven Replacement Purchase Values<sup>1</sup> - Number of Years Before Culling**

	1 Year	2 Years	3 Years	4 Years	5 Years	6 Years	7 Years	8 Years
<b>Operating Expense (per Cow)</b>								
Feed Cost	\$506.79	<b>\$506.79</b>	<b>\$506.79</b>	<b>\$506.79</b>	<b>\$506.79</b>	<b>\$506.79</b>	<b>\$506.79</b>	<b>\$506.79</b>
Other Operating Cost <sup>2</sup>	\$311.57	\$316.24	\$320.99	\$325.80	\$330.69	\$335.65	\$340.68	\$345.79
Operating Interest	\$31.71	\$31.89	\$32.08	\$32.26	\$32.45	\$32.64	\$32.84	\$33.04
<b>Total Operating Cost</b>	<b>\$850.07</b>	<b>\$854.92</b>	<b>\$859.85</b>	<b>\$864.85</b>	<b>\$869.93</b>	<b>\$875.08</b>	<b>\$880.31</b>	<b>\$885.62</b>
<b>Total Fixed Cost<sup>2</sup></b>	<b>\$428.12</b>	<b>\$434.54</b>	<b>\$441.06</b>	<b>\$447.68</b>	<b>\$454.39</b>	<b>\$461.21</b>	<b>\$468.12</b>	<b>\$475.15</b>
<b>Total Operating and Fixed Cost</b>	<b>\$1,278.19</b>	<b>\$1,289.46</b>	<b>\$1,300.91</b>	<b>\$1,312.53</b>	<b>\$1,324.32</b>	<b>\$1,336.29</b>	<b>\$1,348.43</b>	<b>\$1,360.76</b>
<b>Total Labour (Living) Cost<sup>2</sup></b>	<b>\$104.00</b>	<b>\$105.56</b>	<b>\$107.14</b>	<b>\$108.75</b>	<b>\$110.38</b>	<b>\$112.04</b>	<b>\$113.72</b>	<b>\$115.42</b>
<b>Total Cost Per Cow</b>	<b>\$1,382.19</b>	<b>\$1,395.02</b>	<b>\$1,408.05</b>	<b>\$1,421.28</b>	<b>\$1,434.70</b>	<b>\$1,448.32</b>	<b>\$1,462.15</b>	<b>\$1,476.19</b>
<b>Income (per Cow)</b>								
Calf Market Price (\$/cwt)	\$176.27	<b>\$176.27</b>	<b>\$176.27</b>	<b>\$176.27</b>	<b>\$176.27</b>	<b>\$176.27</b>	<b>\$176.27</b>	<b>\$176.27</b>
Calf Revenue	\$718.19	\$718.19	\$718.19	\$718.19	\$718.19	\$718.19	\$718.19	\$718.19
Cull Cow Revenue	\$2,200	<b>\$2,200</b>	<b>\$2,200</b>	<b>\$2,200</b>	<b>\$2,200</b>	<b>\$2,200</b>	<b>\$2,200</b>	<b>\$2,200</b>
<b>Breakeven Replacement Purchase Value (@ 3% annual investment cost)</b>								
Over Operating Costs	\$2,008	\$1,817	\$1,627	\$1,438	\$1,250	\$1,063	\$878	\$694
Over Operating & Labour Costs	\$1,907	\$1,616	\$1,328	\$1,043	\$760	\$479	\$201	-\$74
Over Operating & Fixed Costs	\$1,592	\$992	\$398	-\$189	-\$769	-\$1,341	-\$1,908	-\$2,467
Over Total Costs (Net Profit)	<b>\$1,491</b>	<b>\$791</b>	<b>\$99</b>	<b>-\$584</b>	<b>-\$1,259</b>	<b>-\$1,926</b>	<b>-\$2,584</b>	<b>-\$3,235</b>

<sup>1</sup> Yearly replacement value is calculated by adding the marginal returns from the current and each of the previous years and cull cow revenue in the current year at net present value (based on 3% annual investment cost)

<sup>2</sup> Costs estimates are increased annually by 1.5% inflation rate

**Note:** 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.

## Bison Cow-Calf Production Costs - Input

### Assumptions

1. This budget outlines the cost of production for a Bison Cow-Calf operation only.
2. Handling facilities are estimated at current market value with an estimated useful life of 20 years.
3. Machinery and equipment are estimated at current market value with an estimated useful life of 10 years.
4. Replacement heifers are valued at fair market value. (\$3,300/heifer)
5. The budget assumes an average weaning weight of 463 lbs. (bull calves 485 lbs. and heifer calves 440 lbs.)

### Herd Profile

Number of cows	<b>100</b>
Number of bulls	<b>6</b>
Calf crop %	<b>88 %</b>
Bull Calf Weight	<b>485 lbs</b>
Bull Calf Market Price	<b>\$205 /cwt</b>
Heifer Calf Weight	<b>440 lbs</b>
Heifer Calf Market Price	<b>\$145 /cwt</b>
Average Calf Weight	<b>463 lbs</b>
Weighted Average Calf Market Price	<b>\$176.27 /cwt</b>
Replacement rate - cows	<b>5.0 %</b>
Replacement rate - bulls	<b>10.0 %</b>
Cow mortality rate	<b>2.0 %</b>

### Feed Costs and Requirements

	Feed Cost		Feed Requirement	
		\$/lb	/Cow	/Bull
Flushing Ration	<b>\$0.200</b>		<b>4.00</b>	<b>4.00 lbs/day</b>
Days/Year on Ration			<b>60</b>	<b>60 days</b>
Hay (Good Quality)	<b>\$120.00</b>	/ton	<b>3.00</b>	<b>3.25 tons/yr</b>
Creep Feed	<b>\$0.00</b>	/lb	<b>0.00</b>	<b>0.00 lbs/day</b>
Days/Year on Creep Feed			<b>60</b>	n/a days
Hay (Low Quality)	<b>\$0.00</b>	/ton	<b>0.00</b>	<b>0.00 tons/yr</b>
Salt	<b>\$0.14</b>	/lb	<b>16.00</b>	n/a lbs/year
Minerals	<b>\$0.91</b>	/lb	<b>42.00</b>	n/a lbs/year

FOOTNOTE: 1 bushel (bu) barley = 48 lbs = 21.8 kg

### Annual Days on Pasture and Winter Feeding

Pasture Grazing	<b>170 days</b>
Extended Grazing	<b>30 days</b>
Total Winter Feeding	165 days
Winter feeding - bale grazing	<b>0 day</b>
Winter feeding - feed delivered	<b>165 days</b>
	<b>365 Total Days</b>

**Veterinary Medicine & Supplies****Calf Medication**

Blackleg ( 8 way vaccine )	\$0.00 /head
Muse	\$0.00 /head
Parasite Control	\$0.00 /head

**Cow Medication**

Parasite Control	\$9.13 /head
Scourguard	\$0.00 /head
Footrot, louse control, de grubbing, surgery, antibiotics, etc.	\$0.00 /head
ADE, 2 treatments	\$0.00 /head

**Bull Medication**

Parasite Control	\$17.25 /head
Semen Test	\$60.00 /head

**Herd Health Program**

Professional Services	
Total Yearly Hours	2
Charge per Hour	\$175.00

Transportation	
Total Kilometers (round trip)	160
Charge per km	\$1.00
Number of yearly visits	1

**Breeding Costs****Replacement of Bulls**

Original Cost/Bull	\$4,300
Salvage Value/Bull	\$2,500

**Fuel, Oil, Repairs & Maintenance**

a) Machinery Fuel Costs - Winter Feeding	
Tractor with Loader PTO hp	120
Diesel Fuel Cost	\$1.65 /litre
Tractor Hours Per Day (average)	1.00 hours
b) Machinery Repair (% of investment cost)	1.00 %
c) Building & fence repair (% of investment cost)	2.00 %

**Other Operating Costs**

**Utilities**

Hydro - Rate	<b>\$0.09324</b> / kWh
25 kWh per cow	<b>\$233.10</b>
1 1000 watt waterer	<b><u>\$327.27</u></b>
Total Hydro	<b>\$560.37</b>
Water	<b>\$0.00</b>
Telephone	<b>\$600.00</b>

**Marketing & Transportation (Culls)**

a) Trucking:

Number of Cull Cows & Bulls	6 culls
Average Weight/Cow	<b>1,200</b> lbs
Average Weight/Bull	<b>1,350</b> lbs
Trucking Cost	<b>\$1.90</b> /cwt

b) Selling Commission:

Insurance per Head	<b>\$1.75</b> /head
Commission on Cows	<b>\$40.00</b> /cow
Commission on Calves	<b>\$30.00</b> /calf

**Investment Interest Rate**

**3.00** %

**Operating Interest Rate**

**7.75** %

**Insurance**

Cost per \$100 Capital Invested in	
Livestock	<b>\$0.45</b>
Building & Equipment	<b>\$0.40</b>
Additional Coverage for liability	<b>\$49.00</b>

**Miscellaneous**

Total yearly expense	<b>\$1,000</b>
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**Herd replacement (cows only)**

Replacement Cost	<b>\$3,300</b> /heifer
Average Market Value	<b>\$3,000</b> /cow
Price Received	<b>\$2,200</b> /cull cow

**Land and Fencing**

Number of Acres/Cow	<b>5</b> (500 ac)	680 = AUM Total 1.36 = AUM/Acre
Value/Acre	<b>\$850</b>	
Taxes per Acre	<b>\$4.00</b>	
Fence - perimeter	<b>6.00</b> miles	
- perimeter cost	<b>\$9,250</b> /mile	
- internal	<b>2.00</b> miles	
- internal cost	<b>\$3,960</b> /mile	



## Capital Costs

	Original Value	Salvage Value	Useful Life
<b>Facilities</b>			
Holding Chutes	\$6,000	0 %	20 years
Pens (working & sorting)	\$15,000	0 %	20 years
Feedlot Fence	\$4,000	0 %	20 years
Round Bale Feeders	\$2,400	0 %	20 years
Troughs & Miscellaneous	\$2,500	0 %	20 years
Waterers	\$6,000	0 %	20 years
Squeeze, Gates & Scale	\$6,000	0 %	20 years
Pasture Watering System	\$4,000	0 %	20 years
Pasture Water Source	\$3,000	0 %	20 years
Gates	\$1,450	0 %	20 years
Well & Pressure System	\$8,000	0 %	20 years
Hydro (6 poles @ \$400)	\$2,400	0 %	20 years
Storage Bins	<u>\$2,500</u>	0 %	20 years
<b>Total Building Cost</b>	<b>\$63,250</b>		
<b>Machinery &amp; Equipment:</b>			
Tractor & Loader (\$120,000@30%)	\$36,000	20 %	10 years
Miscellaneous Machinery	\$10,000	20 %	10 years
Bale Shredder	\$22,000	20 %	10 years
Stock Trailer	\$25,000	20 %	10 years
Truck (\$60,000@ 50%)	<u>\$30,000</u>	20 %	10 years
<b>Total</b>	<b>\$123,000</b>		
<b>Land</b>	<b>\$425,000</b>	(500 acres @ \$850/acre)	
<b>Fence</b>			
- perimeter	\$55,500	0 %	20 years
- internal	\$7,920	0 %	20 years
<b>Total</b>	<u><b>\$63,420</b></u>		
<b>Breeding Stock</b>			
Cows	\$300,000		
Bulls	\$25,800		
<b>Total</b>	<u><b>\$325,800</b></u>		
<b>Total Capital Costs</b>	<b>\$1,000,470</b>		
<b>Labour Costs</b>			
Hours	4.0	hours/cow/year	
Wage	\$26.00	/hour	

**Extended Grazing Costs & Requirements Worksheet**

Extended Grazing Days	30	Perimeter Fence Cost	<b>\$9,250</b>	\$/mile
Number of Cows	100	Fence Useful Life	<b>20</b>	years
Number of Cow Grazing Days	3,000			

	<b>Corn Grazing</b>	<b>Stockpiled Forage</b>	<b>Swath Grazing</b>	<b>Crop Residue</b>	<b>Total</b>
Extended Grazing useage - %	<b>0</b>	<b>100</b>	<b>0</b>	<b>0</b>	<b>100</b>
	(total must = 100%)				

Grazing Yield (wet tons/acre)	<b>15.00</b>	<b>1.00</b>	<b>7.50</b>	<b>0.25</b>
% moisture	<b>65</b>	<b>10</b>	<b>65</b>	<b>8</b>
Yield (tons dry matter/acre)	5.25	0.9	2.625	0.23
Total # cow grazing days/acre	350.0	60.0	175.0	15.3
Acres Req'd (@ 100% each)	<b>9</b>	<b>50</b>	<b>17</b>	<b>196</b>

Planned extended grazing acres	<b>0</b>	<b>50</b>	<b>0</b>	<b>0</b>
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<u>Extended Grazing Costs</u>	<u>\$/acre</u>	<u>\$/pound</u>	<u>\$/acre</u>	<u>\$/pound</u>
Standing Forage Cost	n/a	<b>\$0.025</b>	n/a	<b>\$0.005</b>
<b>Input Costs</b>				
Seed	<b>\$96.00</b>		<b>\$32.00</b>	
Fertilizer	<b>\$209.00</b>		<b>\$114.00</b>	
Herbicide	<b>\$16.00</b>		<b>\$16.00</b>	
Custom tillage	<b>\$12.00</b>		<b>\$12.00</b>	
Custom seeding	<b>\$25.00</b>		<b>\$25.00</b>	
Custom spraying	<b>\$9.00</b>		<b>\$9.00</b>	
Miscellaneous	<b>\$7.75</b>		<b>\$7.75</b>	
Land taxes	<b>\$10.00</b>		<b>\$10.00</b>	
Land Costs	<b>\$71.26</b>		<b>\$71.26</b>	
Labour	<b>\$13.00</b>		<b>\$13.00</b>	
<b>Subtotal</b>	<b>\$469.01</b>	n/a	<b>\$310.01</b>	n/a
<b>Fencing Costs</b>				
Estimated miles of fence required	0.000	0.625	0.000	0.000
Fence Investment Cost/acre	\$0.00	\$3.47	\$0.00	\$0.00
Fence Depreciation Cost/acre	\$0.00	\$5.78	\$0.00	\$0.00
<b>Total cost per acre</b>	<b>\$0.00</b>	<b>\$59.25</b>	<b>\$0.00</b>	<b>\$0.00</b>

<b>Total Extended Grazing Cost</b>	<b>\$0.00</b>	<b>\$2,962.50</b>	<b>\$0.00</b>	<b>\$0.00</b>
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**Cost Summary**

	<u>Corn Grazing</u>	<u>Stockpiled Forage</u>	<u>Swath Grazing</u>	<u>Crop Residue</u>	<u>Total Cost</u>
Cost per cow	<b>\$0.00</b>	<b>\$29.63</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$29.63</b>
Number of Days		30			
Cost / cow / day		<b>\$0.99</b>			<b>\$0.99</b>

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**Assumptions**

1. This budget outlines the cost of production for a Bison Cow-Calf operation only.
2. Handling facilities are estimated at current market value with an estimated useful life of 20 years.
3. Machinery and equipment are estimated at current market value with an estimated useful life of 12 years.
4. Replacement heifers are valued at fair market value.
5. The budget assumes an average weaning weight of 463 lbs.
6. This budget is based on 200 days grazing and 165 days winter feeding.

**Bison Cow-Calf Production Cost Worksheet**

**A. Operating Costs**

**1. Feed Costs**

**1.01 Flushing Ration**

				<u>Your Cost</u>
Cows		4.0	lbs/cow/day	_____
	x	60	days/year	_____
	x	<u>\$0.20</u>	/lb	_____
	=	\$48.00	/cow	_____
Bulls		4.0	lbs/bull/day	_____
	x	60	days	_____
	x	\$0.20	/lb	_____
	x	6	bulls	_____
	÷	<u>100</u>	cows	_____
	=	\$2.88	/cow	_____
<b>Total</b>		<b>\$50.88</b>	<b>/cow</b>	_____

**1.02 Hay**

Cows		3.00	tons	_____
	x	<u>\$120.00</u>	/ton	_____
	=	\$360.00	/cow	_____
Bulls		3.25	tons	_____
	x	\$120.00	/ton	_____
	x	6	bulls	_____
	÷	<u>100</u>	cows	_____
	=	\$23.40	/cow	_____
<b>Total</b>		<b>\$383.40</b>	<b>/cow</b>	_____

**1.03 Salt and Minerals**

Cows		16	lbs salt/cow/year	_____
	x	<u>\$0.14</u>	/lb	_____
	=	\$2.24	/cow	_____
		42	lbs mineral/cow/year	_____
	x	<u>\$0.91</u>	/lb	_____
	=	\$38.22	/cow	_____
Bulls		16	lbs salt/bull/year	_____
	x	\$0.14	/lb	_____
	x	6	bulls	_____
	÷	<u>100</u>	cows	_____
	=	\$0.13	/cow	_____
		42	lbs mineral/bull/year	_____
	x	\$0.91	/lb	_____
	x	6	bulls	_____
	÷	<u>100</u>	cows	_____
	=	\$2.29	/cow	_____
<b>Total</b>		<b>\$42.88</b>	<b>/cow</b>	_____

**Your Cost**

**1.04 Creep Feed**

		0	lbs/day	_____
x		60	days	_____
x		\$0.00	/lb	_____
x		<u>88.0</u>	<u>% calf crop</u>	_____
=		<b>\$0.00</b>	<b>/cow</b>	_____

**1.05 Extended Grazing Forages**

Corn Grazing		\$0.00	/cow	_____
Stockpiled Forage		\$29.63	/cow	_____
Swath Grazing		\$0.00	/cow	_____
Crop Residue		\$0.00	/cow	_____
<b>Total</b>	<b>=</b>	<b>\$29.63</b>	<b>/cow</b>	_____

**2. Other Operating Costs**

**2.01 Veterinary Medicine & Supplies**

Calf medication		\$0.00	blackleg	_____
+		\$0.00	vitamin	_____
+		\$0.00	parasite control	_____
=		\$0.00	total	_____
x		<u>88.00</u>	<u>% calf crop</u>	_____
=		\$0.00	/cow	_____

Cow medication		\$9.13	parasite control	_____
+		\$0.00	scourguard 3	_____
+		\$0.00	footrot, louse control,	_____
+		<u>\$0.00</u>	<u>ADE</u>	_____
=		\$9.13	/cow	_____

Bull medication		\$17.25	parasite control	_____
+		\$60.00	semen test	_____
x		6	bulls	_____
÷		<u>100</u>	<u>cows</u>	_____
=		\$4.64	/cow	_____

Herd health program		\$175.00	/hour charge	_____
x		2	hours	_____
÷		<u>100</u>	<u>cows</u>	_____
=		\$3.50	/cow	_____

Mileage		\$1.00	/km charge	_____
x		160	kilometres	_____
x		1	visits	_____
÷		<u>100</u>	<u>cows</u>	_____
=		\$1.60	/cow	_____

<b>Total</b>	<b>=</b>	<b>\$18.87</b>	<b>/cow</b>	_____
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**2.02 Fuel, Oil, Repairs & Maintenance**

Machinery fuel cost		120	PTO hp	_____
÷		2.5	avg HP required	_____
x		0.1665576	litres fuel/hour/hp	_____
x		1.0	hours per day	_____
x		\$1.65	diesel / litre	_____
x		<u>165</u>	<u>days on feed</u>	_____
		\$2,176.57	annual fuel cost	_____
÷		<u>100.00</u>	<u>cows</u>	_____

			<u>Your Cost</u>	
	=	\$21.77	/cow	_____
Machinery repair & maintenance		\$123,000	machinery capital cost	_____
	x	1.00	% repair rate	_____
	=	\$1,230.00	oil, repairs & maintenance	_____
	÷	100.00	cows	_____
	=	\$12.30	/cow	_____
Building & fence repair		\$126,670	building capital cost	_____
	x	2.00	% repair rate	_____
	=	\$2,533.40	oil, repairs & maintenance	_____
	÷	100.00	cows	_____
	=	\$25.33	/cow	_____
<b>Total</b>	<b>=</b>	<b>\$59.40</b>	<b>/cow</b>	_____
<b>2.03 Utilities</b>				
		\$1,160.37	annual cost	_____
	÷	100	cows	_____
	=	\$11.60	/cow	_____
<b>2.04 Marketing &amp; Transportation (Culls)</b>				
Trucking				
Calves		88	calves	_____
	x	463.00	lbs/calf	_____
	x	\$1.90	/cwt (trucking cost)	_____
	÷	100.00	lbs/cwt	_____
	÷	100.00	cows	_____
	=	\$7.74	/cow	_____
Cull Cows		5.00	cull cows	_____
	-	2.00	cows died	_____
	x	1,200.00	lbs/cow	_____
	x	\$1.90	/cwt (trucking cost)	_____
	÷	100.00	lbs/cwt	_____
	÷	100.00	cows	_____
	=	\$0.68	/cow	_____
Cull Bulls		0.60	cull bulls	_____
	x	1,350.00	lbs/bull	_____
	x	\$1.90	/cwt (trucking cost)	_____
	÷	100.00	lbs/cwt	_____
	÷	100.00	cows	_____
	=	\$0.15	/cow	_____
Selling commission & insurance				
Calves		\$30.00	Commission, Insurance	_____
	x	88	calves	_____
	÷	100.00	cows	_____
	=	\$26.40	/cow	_____
Cull Cows		\$41.75	Commission, Insurance	_____
	x	5	cull cows	_____
	÷	100.00	cows	_____
	=	\$2.09	/cow	_____
	<b>=</b>	<b>\$37.06</b>	<b>/cow</b>	_____
<b>2.05 Death Loss</b>				
Cows		\$3,300	/cow	_____
	x	2.00	% mortality rate	_____
	=	\$66.00	/cow	_____
Bulls		\$4,300	/bull	_____
	x	2.00	% mortality rate	_____
	x	6	bulls	_____
	÷	100	cows	_____
	=	\$5.16	/cow	_____



				<u>Your Cost</u>
<b>Total</b>		<b>\$71.16</b>	<b>/cow</b>	_____
<b>2.06 Insurance</b>				
		\$63,250	bldg & equip invest	_____
	x	\$0.40	cost/\$100 Capital	_____
	÷	\$100	units of \$100	_____
	÷	<u>100</u>	<u>cows</u>	_____
	=	\$2.53	/cow	_____
		\$325,800	total for herd	_____
	÷	\$100	units of \$100	_____
	x	\$0.45	insurance rate/\$100	_____
	÷	<u>100</u>	<u>cows</u>	_____
	=	\$14.66	/cow	_____
		\$49.00	coverage for liability	_____
	÷	<u>100</u>	<u>cows</u>	_____
	=	\$0.49	/cow	_____
<b>Total</b>		<b>\$17.68</b>	<b>/cow</b>	_____
<b>2.07 Herd Replacement</b>				
Cows				
		\$3,300	bred heifer	_____
	-	\$2,200	cull cow	_____
	x	<u>5.00</u>	<u>% replacement rate</u>	_____
	=	\$55.00	/cow	_____
Bulls				
		\$4,300	bull value	_____
	-	\$2,500	bull cull value	_____
	x	10.00	% replacement rate	_____
	x	6	number of bulls	_____
	÷	<u>100</u>	<u>cows</u>	_____
	=	\$10.80	/cow	_____
<b>Total</b>		<b>\$65.80</b>	<b>/cow</b>	_____
<b>2.08 Miscellaneous</b>				
		\$1,000	total office expenses	_____
	÷	<u>100</u>	<u>cows</u>	_____
	=	<b>\$10.00</b>	<b>/cow</b>	_____
<b>2.09 Land Taxes</b>				
		5	acres/cow	_____
	x	<u>\$4.00</u>	<u>/acre</u>	_____
	=	<b>\$20.00</b>	<b>/cow</b>	_____
<b>2.10 Operating Interest</b>				
(Operating interest is charged on one half of the subtotal operating costs.)				
		\$818.35	subtotal operating costs	_____
	÷	2	average	_____
	x	<u>7.8</u>	<u>% operating interest</u>	_____
	=	<b>\$31.71</b>	<b>/cow</b>	_____

**Capital Costs**

<b>Handling Facilities</b>		
Holding Chutes	\$6,000	_____
Pens (working & sorting)	\$15,000	_____
Feedlot Fence	\$4,000	_____
Round Bale Feeders	\$2,400	_____
Troughs & Miscellaneous	\$2,500	_____
Waterers	\$6,000	_____
Squeeze, Gates & Scale	\$6,000	_____
Pasture Watering System	\$4,000	_____
Pasture Water Source	\$3,000	_____
Gates	\$1,450	_____
Well & Pressure System	\$8,000	_____
Hydro (6 poles @ \$400)	\$2,400	_____

		<u>Your Cost</u>
Storage Bins	<u>\$2,500</u>	
<b>Total Building Cost</b>	<b>\$63,250</b>	_____
<b>Machinery &amp; Equipment:</b>		
Tractor & Loader (\$120,000@50%)	\$36,000	_____
Miscellaneous Machinery	\$10,000	_____
Bale Shredder	\$22,000	_____
Stock Trailer	\$25,000	_____
Truck (\$60,000@ 50%)	<u>\$30,000</u>	_____
<b>Total</b>	<b>\$123,000</b>	_____
<b>Land</b>	<b>\$425,000</b>	_____
<b>Fence</b>		
- perimeter	\$55,500	
- internal	<u>\$7,920</u>	
<b>Total</b>	<b>\$63,420</b>	
<b>Breeding Stock</b>		
Cows	\$300,000	
Bulls	<u>\$25,800</u>	
<b>Total</b>	<b>\$325,800</b>	
<b>Total Capital Costs</b>	<b>\$1,000,470</b>	

**B. Fixed Costs**

Original Cost - Salvage Value  
Useful Life

**3. Depreciation**

**3.01 Handling Facilities**

	\$63,250	original value	_____
-	\$0	salvage value	_____
÷	20	years useful life	_____
÷	<u>100</u>	<u>cows</u>	_____
=	<b>\$31.63</b>	<b>/cow</b>	_____

**3.02 Machinery & Equipment**

	\$123,000	original value	_____
-	\$24,600	salvage value	_____
÷	10	years useful life	_____
÷	<u>100</u>	<u>cows</u>	_____
=	<b>\$98.40</b>	<b>/cow</b>	_____

**3.03 Fencing**

	\$55,500	perimeter fence	_____
+	\$7,920	cross fence	_____
=	\$63,420	fence cost	_____
-	\$0	salvage value	_____
÷	20	years useful life	_____
÷	<u>100</u>	<u>cows</u>	_____
=	<b>\$31.71</b>	<b>/cow</b>	_____

**4. Investment:**

Original Value + Salvage Value x Investment Rate  
2

**4.01 Handling Facilities**

	\$63,250	total building value	_____
+	\$0	salvage value	_____
÷	2	average	_____
x	3.00	% investment interest	_____
÷	<u>100</u>	<u>cows</u>	_____
=	<b>\$9.49</b>	<b>/cow</b>	_____

**4.02 Machinery & Equipment**

	\$123,000	original value	_____
+	\$24,600	salvage value	_____

			<u>Your Cost</u>	
	÷	2	average	_____
	x	3.00	% investment interest	_____
	÷	<u>100</u>	<u>cows</u>	_____
	=	<b>\$22.14</b>	<b>/cow</b>	_____
<b>4.03 Livestock</b>				
Cows		\$3,000	/cow	_____
	x	3.00	% investment interest	_____
	=	\$90.00	/cow	_____
Bulls		\$4,300	bull value	_____
	x	3.00	% investment interest	_____
	x	6	bulls	_____
	÷	<u>100</u>	<u>cows</u>	_____
	=	\$7.74	/cow	_____
<b>Total</b>	=	<b>\$97.74</b>	<b>/cow</b>	_____
<b>4.04 Pasture</b>				
Land		500	acres	_____
	x	\$850.00	/acre	_____
	x	3.00	% investment interest	_____
	÷	<u>100</u>	<u>cows</u>	_____
	=	\$127.50	/cow	_____
Fence Investment Cost		\$63,420	fence cost	_____
	+	\$0	salvage value	_____
	=	\$63,420	total	_____
	÷	2	average	_____
	x	3.00	% investment interest	_____
	÷	<u>100</u>	<u>cows</u>	_____
	=	\$9.51	/cow	_____
<b>Total</b>	=	<b>\$137.01</b>	<b>/cow</b>	_____
<b>C. Labour</b>				
		4.0	hours/cow/year	_____
	x	<u>\$26.00</u>	<u>/hour</u>	_____
	=	<b>\$104.00</b>	<b>/cow</b>	_____

**Profitability and Breakeven Analysis:**

Gross Revenue = calf weight cwt x \$/cwt x % calf crop (eg. 4.63 x \$176.27/cwt x 88% = \$718.19)  
 Operating Expense Ratio = (operating cost ÷ gross revenue) x 100 (eg. (\$850.06 ÷ \$718.19) x 100 = 118.4%)  
 Breakeven Price \$/cwt = Cost ÷ % calf crop ÷ calf weight cwt (eg. \$1382.18 ÷ 88% ÷ 4.63 = \$339.24)

**Cost Summary:**

Summer Grazing Cost Per Cow Per Day = pasture cost ÷ days (eg. \$188.72 ÷ 170 = \$1.11)  
 Extended Grazing Cost Per Cow Per Day = grazing cost ÷ days (eg. \$29.63 ÷ 30 = \$0.99)  
 Winter Feed Cost Per Cow Per Day = feed cost ÷ days (eg. \$477.16 ÷ 165 = \$2.89)  
 Yardage Cost Per Cow Per Day = (\$59.40 fuel & repair + \$2.53 building insurance + \$11.60 utilities + \$31.63 building depreciation + \$98.40 machinery depreciation + \$9.49 building investment + \$22.14 machinery investment + \$5.34 misc. + \$65.00 labour) ÷ 195 days = \$1.567

October, 2022

**Contact Us**

For more information, contact a Farm Management Specialist.

- [manitoba.ca/agriculture](http://manitoba.ca/agriculture)
- [mbfarmbusiness@gov.mb.ca](mailto:mbfarmbusiness@gov.mb.ca)
- 1-844-769-6224



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