
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

A. Operating Costs	<u>\$/Cow</u>	<u>Total</u>	<u>Your Costs</u>
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>	_____
Total Feed Cost	\$506.79	\$50,679	_____
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>	_____
Total Operating Costs	\$850.06	\$85,007	_____
B. Fixed Costs			
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>	_____
Total Fixed Costs	\$428.12	\$39,641	_____
Total Operating and Fixed Costs	\$1,278.18	\$124,648	_____
C. Labour	\$104.00	\$10,400	_____
Total Cost of Production	\$1,382.18	\$135,048	_____

Profitability and Breakeven Analysis

Estimated Farmgate	<u>Per Cow</u>	<u>Total</u>
Price (\$ per cwt)	<u>\$176.27</u>	
Calf weight (lbs)	463	
Gross Revenue / cow	\$718.19	\$71,819
Marginal Returns		
Over Operating Costs	-\$131.87	-\$13,187
Over Operating & Labour Costs	-\$235.87	-\$23,587
Over Operating & Fixed Costs	-\$559.99	-\$55,999
Over Total Costs (Net Profit)	-\$663.99	-\$66,399
Operating Expense Ratio	118.4%	
Breakeven selling price/head	<u>\$/head</u>	<u>\$/cwt</u>
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
Total Overwinter Costs (based on 195 days)	\$4.166

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

	Up	Down
Percent Price Variation	5%	10%
Percent Calf Crop Variation	1.0%	5.0%
Percent Calf Weight Variation	5%	5%

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

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

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

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

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

Estimated Breakeven Replacement Purchase Values¹ - Number of Years Before Culling

	1 Year	2 Years	3 Years	4 Years	5 Years	6 Years	7 Years	8 Years
Operating Expense (per Cow)								
Feed Cost	\$506.79	\$506.79	\$506.79	\$506.79	\$506.79	\$506.79	\$506.79	\$506.79
Other Operating Cost ²	\$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
Total Operating Cost	\$850.07	\$854.92	\$859.85	\$864.85	\$869.93	\$875.08	\$880.31	\$885.62
Total Fixed Cost²	\$428.12	\$434.54	\$441.06	\$447.68	\$454.39	\$461.21	\$468.12	\$475.15
Total Operating and Fixed Cost	\$1,278.19	\$1,289.46	\$1,300.91	\$1,312.53	\$1,324.32	\$1,336.29	\$1,348.43	\$1,360.76
Total Labour (Living) Cost²	\$104.00	\$105.56	\$107.14	\$108.75	\$110.38	\$112.04	\$113.72	\$115.42
Total Cost Per Cow	\$1,382.19	\$1,395.02	\$1,408.05	\$1,421.28	\$1,434.70	\$1,448.32	\$1,462.15	\$1,476.19
Income (per Cow)								
Calf Market Price (\$/cwt)	\$176.27	\$176.27	\$176.27	\$176.27	\$176.27	\$176.27	\$176.27	\$176.27
Calf Revenue	\$718.19	\$718.19	\$718.19	\$718.19	\$718.19	\$718.19	\$718.19	\$718.19
Cull Cow Revenue	\$2,200	\$2,200	\$2,200	\$2,200	\$2,200	\$2,200	\$2,200	\$2,200
Breakeven Replacement Purchase Value (@ 3% annual investment cost)								
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)	\$1,491	\$791	\$99	-\$584	-\$1,259	-\$1,926	-\$2,584	-\$3,235

¹ 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)

² 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	100
Number of bulls	6
Calf crop %	88 %
Bull Calf Weight	485 lbs
Bull Calf Market Price	\$205 /cwt
Heifer Calf Weight	440 lbs
Heifer Calf Market Price	\$145 /cwt
Average Calf Weight	463 lbs
Weighted Average Calf Market Price	\$176.27 /cwt
Replacement rate - cows	5.0 %
Replacement rate - bulls	10.0 %
Cow mortality rate	2.0 %

Feed Costs and Requirements

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

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

Annual Days on Pasture and Winter Feeding

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

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

Marketing & Transportation (Culls)

a) Trucking:

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

b) Selling Commission:

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

Investment Interest Rate

3.00 %

Operating Interest Rate

7.75 %

Insurance

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

Miscellaneous

Total yearly expense	\$1,000
----------------------	----------------

Herd replacement (cows only)

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

Land and Fencing

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

Capital Costs

	Original Value	Salvage Value	Useful Life
Facilities			
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	\$2,500	0 %	20 years
Total Building Cost	\$63,250		
Machinery & Equipment:			
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%)	\$30,000	20 %	10 years
Total	\$123,000		
Land	\$425,000	(500 acres @ \$850/acre)	
Fence			
- perimeter	\$55,500	0 %	20 years
- internal	\$7,920	0 %	20 years
Total	\$63,420		
Breeding Stock			
Cows	\$300,000		
Bulls	\$25,800		
Total	\$325,800		
Total Capital Costs	\$1,000,470		
Labour Costs			
Hours	4.0	hours/cow/year	
Wage	\$26.00	/hour	

Extended Grazing Costs & Requirements Worksheet

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

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

Grazing Yield (wet tons/acre)	15.00	1.00	7.50	0.25	
% moisture	65	10	65	8	
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)	9	50	17	196	

Planned extended grazing acres	0	50	0	0	
--------------------------------	----------	-----------	----------	----------	--

<u>Extended Grazing Costs</u>	<u>\$/acre</u>	<u>\$/pound</u>	<u>\$/acre</u>	<u>\$/pound</u>
Standing Forage Cost	n/a	\$0.025	n/a	\$0.005
Input Costs				
Seed	\$96.00		\$32.00	
Fertilizer	\$209.00		\$114.00	
Herbicide	\$16.00		\$16.00	
Custom tillage	\$12.00		\$12.00	
Custom seeding	\$25.00		\$25.00	
Custom spraying	\$9.00		\$9.00	
Miscellaneous	\$7.75		\$7.75	
Land taxes	\$10.00		\$10.00	
Land Costs	\$71.26		\$71.26	
Labour	\$13.00		\$13.00	
Subtotal	\$469.01	n/a	\$310.01	n/a
Fencing Costs				
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
Total cost per acre	\$0.00	\$59.25	\$0.00	\$0.00

Total Extended Grazing Cost	\$0.00	\$2,962.50	\$0.00	\$0.00
------------------------------------	---------------	-------------------	---------------	---------------

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	\$0.00	\$29.63	\$0.00	\$0.00	\$29.63
Number of Days		30			
Cost / cow / day		\$0.99			\$0.99

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.

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	_____
Total		\$50.88 /cow	_____

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	_____
Total		\$383.40 /cow	_____

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	<u>\$0.91</u> /lb	_____
	x	6 bulls	_____
	÷	<u>100</u> cows	_____
	=	\$2.29 /cow	_____
Total		\$42.88 /cow	_____

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>	_____
=		\$0.00	/cow	_____

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	_____
Total	=	\$29.63	/cow	_____

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	_____

Total	=	\$18.87	/cow	_____
--------------	----------	----------------	-------------	-------

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	_____
Total	=	\$59.40	/cow	_____
2.03 Utilities				
		\$1,160.37	annual cost	_____
	÷	100	cows	_____
	=	\$11.60	/cow	_____
2.04 Marketing & Transportation (Culls)				
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	_____
	=	\$37.06	/cow	_____
2.05 Death Loss				
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>
Total		\$71.16	/cow	_____
2.06 Insurance				
		\$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	_____
Total		\$17.68	/cow	_____
2.07 Herd Replacement				
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	_____
Total		\$65.80	/cow	_____
2.08 Miscellaneous				
		\$1,000	total office expenses	_____
	÷	<u>100</u>	<u>cows</u>	_____
	=	\$10.00	/cow	_____
2.09 Land Taxes				
		5	acres/cow	_____
	x	<u>\$4.00</u>	<u>/acre</u>	_____
	=	\$20.00	/cow	_____
2.10 Operating Interest				
(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>	_____
	=	\$31.71	/cow	_____

Capital Costs

Handling Facilities

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>	
Total Building Cost	\$63,250	_____
Machinery & Equipment:		
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>	_____
Total	\$123,000	_____
Land	\$425,000	_____
Fence		
- perimeter	\$55,500	
- internal	<u>\$7,920</u>	
Total	\$63,420	
Breeding Stock		
Cows	\$300,000	
Bulls	<u>\$25,800</u>	
Total	\$325,800	
Total Capital Costs	\$1,000,470	

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>	_____
=	\$31.63	/cow	_____

3.02 Machinery & Equipment

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

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>	_____
=	\$31.71	/cow	_____

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>	_____
=	\$9.49	/cow	_____

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>	_____
	=	\$22.14	/cow	_____
4.03 Livestock				
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	_____
Total	=	\$97.74	/cow	_____
4.04 Pasture				
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	_____
Total	=	\$137.01	/cow	_____
C. Labour				
		4.0	hours/cow/year	_____
	x	<u>\$26.00</u>	<u>/hour</u>	_____
	=	\$104.00	/cow	_____

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
- mbfarmbusiness@gov.mb.ca
- 1-844-769-6224

Contact us

- For more information, contact a Farm Management Specialist
- manitoba.ca/agriculture
- mbfarmbusiness@gov.mb.ca
- 1-844-769-6224