
2025 Cost of Production

Pasture



Guidelines For Estimating
**Improved & Unimproved
Pasture Production Costs - 2025**

Date: April, 2025

This guide is designed to provide planning information and a format for calculating the costs of improved and unimproved (marginal) grass pasture for the purpose of grazing livestock in Manitoba. General Department recommendations are assumed in using fertilizers and chemical inputs. These figures provide an economic evaluation of pastures and estimated cost per head per day. Costs include operating, investment and depreciation, but do not include management costs, nor do they necessarily represent the average cost of production in Manitoba.

Stocking rates are a critical aspect of any grazing system. This budget takes into account options to consider when calculating the stocking rate or Animal Unit Months (AUM) for your soil type and climatic conditions.

These budgets may be adjusted by putting in your own figures. As a producer, you are encouraged to calculate your own costs of production for your pasture and grazing system. On each farm, costs and yields differ due to soil type, climate and agronomic practices.

This tool is available as an Excel worksheet at:



[The Farm Machinery Cost of Production Guide](#)
determine machinery costs.

is also available to help

Contact Us

For more information, contact a Farm Management Specialist.

- manitoba.ca/agriculture
- mbfarmbusiness@gov.mb.ca
- 1-844-769-6224

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.

Pasture Production Cost Summary - 2025

	<u>Improved Pasture</u>	<u>Unimproved Pasture</u>
	160 acres	160 acres
	94 head (1.7 ac/hd) @ 1350lbs	32 head (5 ac/hd) @ 1350lbs
	135 Days on Pasture	135 Days on Pasture
Total Animal Unit Months (AUM's)	529	180
Total AUM's - Available Per Acre	3.31	1.13
	\$1,875/acre = \$300,000 Total Cost (\$75,000 loan @ 6%, 25 years = \$5,867 annual pmt)	\$844/acre = \$135,000 Total Cost (\$33,750 loan @ 6%, 25 years = \$2,640 annual pmt)

	<u>\$/Acre</u>	<u>Season \$/head</u>	<u>Daily \$/head</u>	<u>\$/Acre</u>	<u>Season \$/head</u>	<u>Daily \$/head</u>	<u>Your Cost</u>
A. Operating Costs							
Land Development	\$21.57	\$36.56	\$0.27	\$0.00	\$0.00	\$0.00	
Fertilizer - Annual	\$22.19	\$37.60	\$0.28	\$0.00	\$0.00	\$0.00	
Herbicide	\$1.00	\$1.69	\$0.01	\$1.00	\$5.00	\$0.04	
Fence Maintenance	\$2.46	\$4.17	\$0.03	\$1.86	\$9.29	\$0.07	
Facilities Maintenance	\$0.50	\$0.85	\$0.01	\$0.50	\$2.50	\$0.02	
Pasture Days Insurance	\$3.89	\$6.62	\$0.05	\$1.34	\$6.70	\$0.05	
Land Taxes	\$10.00	\$16.95	\$0.13	\$6.00	\$30.00	\$0.22	
Miscellaneous	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
Sub-total Operating Cost	\$61.61	\$104.44	\$0.78	\$10.70	\$53.49	\$0.40	
Interest on Operating	\$2.77	\$4.70	\$0.03	\$0.48	\$2.41	\$0.02	
Total Operating Costs	\$64.38	\$109.12	\$0.81	\$11.18	\$55.90	\$0.41	
B. Fixed Costs							
2.0 Investment							
2.01 Land	\$36.67	\$62.15	\$0.46	\$16.50	\$82.50	\$0.61	
2.02 Facilities	\$2.16	\$3.66	\$0.03	\$1.79	\$8.93	\$0.07	
3.0 Depreciation							
3.01 Facilities	\$8.65	\$14.66	\$0.11	\$7.15	\$35.74	\$0.26	
Total Fixed Costs	\$47.48	\$80.47	\$0.60	\$25.43	\$127.17	\$0.94	
Total Operating and Fixed	\$111.86	\$189.59	\$1.41	\$36.61	\$183.07	\$1.36	
C. Labour	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
Total Cost of Production	\$111.86	\$189.59	\$1.41	\$36.61	\$183.07	\$1.36	

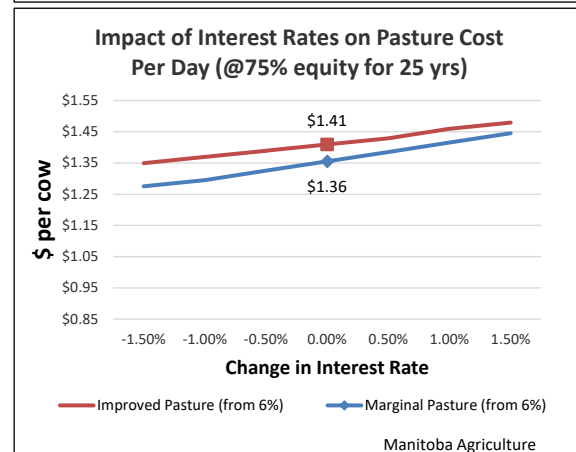
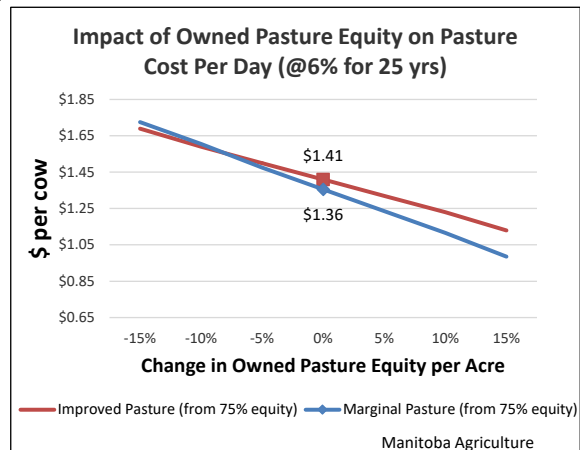
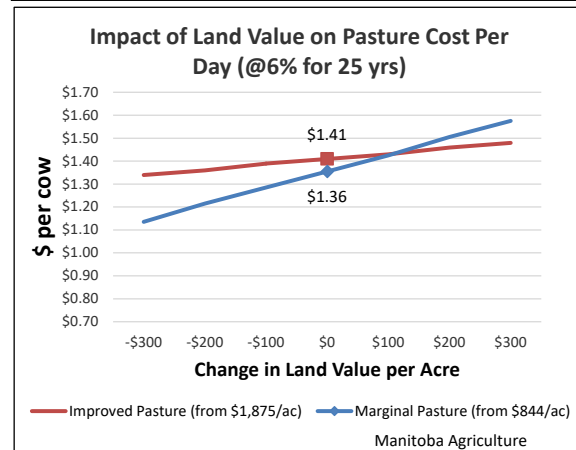
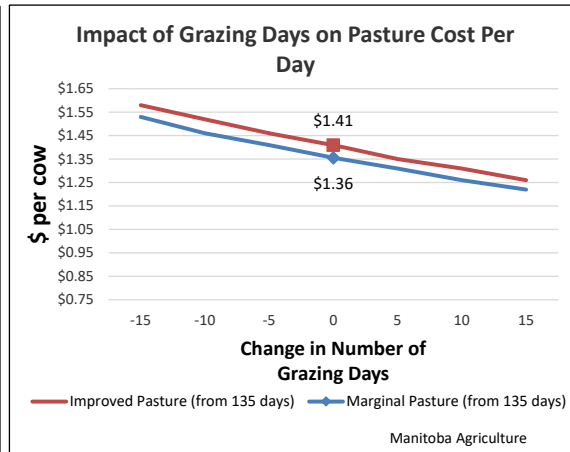
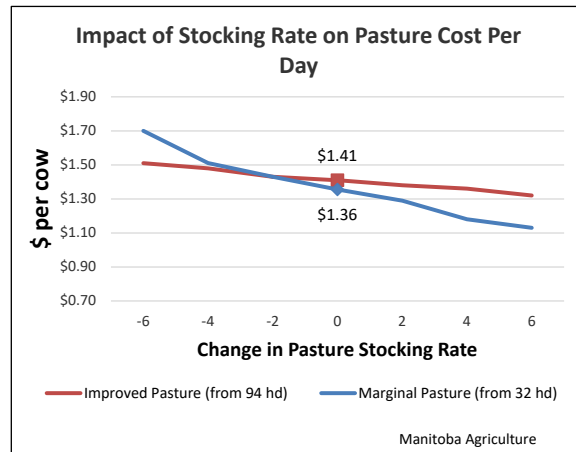
Cost Analysis

	<u>Improved Pasture</u>	<u>Unimproved Pasture</u>
Total Annual Cost	\$17,898	\$5,858
Pasture Cost / Head / Day	\$1.41	\$1.36
Pasture Investment per Head	\$3,191	\$4,219
Pasture Cost / AUM	\$33.83	\$32.55
Pasture Investment per AUM	\$567	\$750

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.

Risk & Sensitivity Analysis (Stress Test)

		Improved Pasture		Unimproved Pasture	
		Amount Added	Changed Cost / Day \$/head		Amount Added \$/head
Change in Stocking Rate	(from 94 hd)	2	\$1.38	(from 32 hd)	2
Change in Grazing Days	(from 135 days)	5	\$1.35	(from 135 days)	5
Change in Land Value	(from \$1,875)	\$100	\$1.43	(from \$844)	\$100
Percent Change in Owned Land Equity	(from 75%)	-5%	\$1.50	(from 75%)	-5%
Change in Interest Rate	(from 6%)	0.50%	\$1.43	(from 6%)	0.50%



Pasture Days Insurance Cost & Analysis

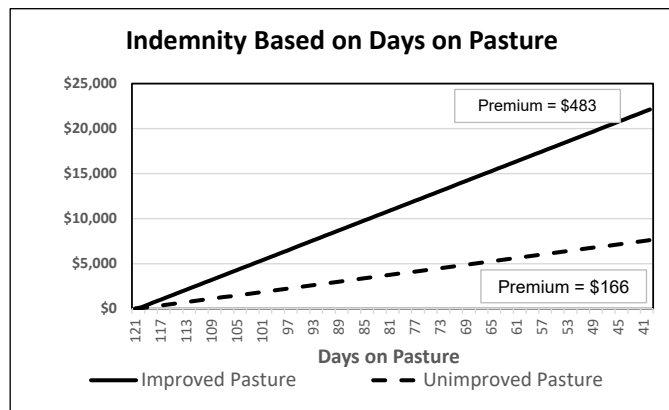
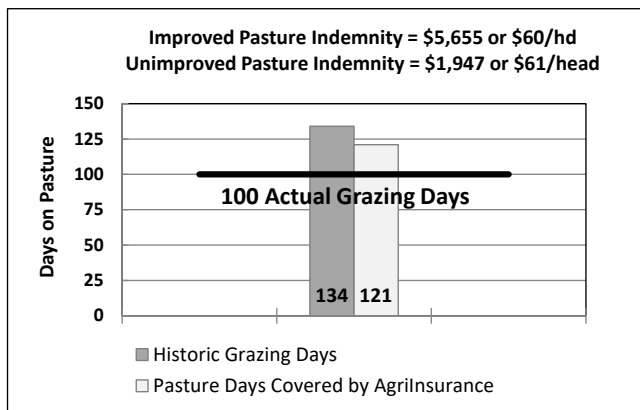
Coverage

Historic grazing period or Individual 10-year average	134 days	or	4.47 months
Coverage Level of of Normal AU days	90%		
Date livestock placed on pasture	May 21	(coverage would last until	September 19 , or 121 days)
Historical grazing period end date (134 days)	October 2		
Dollar Coverage per Animal Unit for each AU day	\$2.25		MASC Pasture Days Insurance Factsheet
Premium Rate	4.70%		MASC Pasture Days Insurance Calculator
Premium share (producer)	40%		

	Improved Pasture		Unimproved Pasture	
Total Acres	160 acres		160 acres	
	Number of Head	Animal Unit (AU)	Number of Head	Animal Unit (AU)
Animal Inventory				
1 Bull, bred cow or cow/calf pair = 1.3 A.U.	94	122	32	42
Coverage Calculation				
Animal Unit Days	16,348	(122 AU x 134 days)	5,628	(42 AU x 134 days)
Pasture Guarantee Days	14,713	(16,348 x 90% or 121 days)	5,065	(5,628 x 90% or 121 days)
Estimated Dollar Coverage	\$33,104.70	(14,713 x \$2.25)	\$11,396.70	(5,065 x \$2.25)
Est. Avg. Coverage (\$/head/season)	\$352.18	(\$33,105 ÷ 94 head)	\$356.15	(\$11,397 ÷ 32 head)
Est. Avg. Coverage (\$/head/day)	\$2.63	(\$352.18 ÷ 134 days)	\$2.66	(\$356.15 ÷ 134 days)
Premium Calculation				
Premium = Expected number of Grazing Days x Animal Units x coverage Level x Insurable Value x Premium Rate %				
Premium	\$1,555.92	(134 x 122 X 90% x \$2.25 x 4.7%)	\$535.64	(134 x 42 X 90% x \$2.25 x 4.7)
Est. Premium: Producer Share (1.88%)	\$622.37	(\$1,555.92 x 40%)	\$214.26	(\$535.64 x 40%)
Est. Premium (\$/Acre)	\$3.89	(\$622.37 ÷ 160)	\$1.34	(\$214.26 ÷ 160)
Est. Premium (\$/head/season)	\$6.62	(\$622.37 ÷ 94)	\$6.70	(\$214.26 ÷ 32)
Est. Premium (\$/head/day)	\$0.0494	(\$6.62 ÷ 134)	\$0.0500	(\$6.7 ÷ 134)

Indemnity Calculation

Date livestock removed from pasture (enter M/DD)	August 29	
Livestock removed from pasture after	100 days	(21 days of pasture coverage)
Actual Animal Unit Days	12,200	(122 AU x 100 days)
Pasture Shortfall	2,513	(14,713 - 12,200)
Estimated Indemnity	\$5,654.70	(2,513 AU Days x \$2.25)
Est. Indemnity (\$/Acre)	\$35.34	(\$5,655 ÷ 160 acres)
Est. Indemnity (\$/head/season)	\$60.16	(\$5,655 ÷ 94 head)
Est. Indemnity (\$/head/day)	\$2.86	(\$60.16 ÷ 21 days)



Breakeven Analysis

Est. Breakeven removal date from pasture (119 days)
 (Removal Date Est. Indemnity = Est. Producer Premium)

September 17

AUM Analysis

Total Animal Unit Months (AUM's)	546	186
Total AUM's - Available Per Acre	3.41	1.16

Pasture Input				
<u>Land Base</u>		<u>Improved Pasture</u>		<u>Unimproved Pasture</u>
Total Acres		160 acres		160 acres
Market Value (excluding fence, water, facilities)		\$1,875	\$300,000	\$844 \$135,000
		<u>Carrying Capacity</u>		<u>Carrying Capacity</u>
Number of head pastured/season		94 head		32 head
Number of head pastured/acre		0.59 Hd/acre		0.20 Hd/acre
Number of pasture acres/head		1.7 Acre/head		5.0 Acre/head
Estimated average weight on pasture		1350 lbs/head		1350 lbs/head
Metabolic Animal Unit Value		1.25		1.25
Grazing period	Days	135 days		135 days
	Months	4.5 months		4.5 months
<u>AUM Analysis</u>				
Total Animal Unit Months (AUM's)		529		180
Total AUM's - Available Per Acre		3.31		1.13
Pasture Investment per AUM		\$567		\$750
Total Pasture Cost Per AUM		\$33.83		\$32.55
<u>Pasture Efficiency Analysis</u>				
Pounds liveweight per acre		797		270
Total pounds on pasture		127,440		43,200
Pasture Total Cost per Head		\$1.41 /day		\$1.36 /day

Land Development & Forage Establishment - Rental & Custom						
Custom Work	Improved Pasture			Unimproved Pasture		
	Cost/Ac	Number	Total/Ac	Cost/Ac	Number of	Total/Ac
		of Passes			Passes	
Land Breaking & Tillage	\$25.00	3	\$75.00	\$0.00	0	\$0.00
Land Clearing	\$0.00	0	\$0.00	\$0.00	0	\$0.00
Harrowing	\$15.00	2	\$30.00	\$0.00	0	\$0.00
Seeding	\$28.00	1	\$28.00	\$0.00	0	\$0.00
Other - Misc.	\$0.00	0	\$0.00	\$0.00	0	\$0.00
			\$133.00			\$0.00
Number of Productive Years		10 years		10 years		
(Annual Cost Amortization)						

Land Development & Forage Establishment - Seed & Treatment			
	<u>Seeding Rate</u>	<u>Price</u>	<u>Cost</u>
	<u>per Acre</u>	<u>per Unit</u>	<u>per Acre</u>
Improved Pasture			
Forage seed	10 lb	\$4.25 /lb	\$42.50
Oat greenfeed (nurse crop)	1.25 bu	\$9.00 /bu	\$11.25
Unimproved Pasture	0 lb	\$0.00 /lb	\$0.00

Fertilizer				
<u>Fertilizer Type</u>	<u>Bulk Price</u> \$/tonne	<u>Actual Nutrient</u> \$/lb	<u>Nitrogen</u> Usage	<u>Sulphur</u> Usage
Nitrogen: (urea) 46-0-0	\$900	\$0.887	100%	-
Nitrogen: (NH3) 82-0-0	\$1,300	\$0.719	0%	-
Nitrogen: (liquid) 28-0-0	\$550	\$0.891	0%	-
Phosphorus: 11-52-0	\$1,250	\$0.903	-	-
Potash: 0-0-60	\$650	\$0.491	-	-
Sulphur: 20.5-0-0-24	\$850	\$0.848	-	100%
MES S15: 13-33-0-15	\$1,220	\$0.934	-	0%

Amount of Actual Pounds of Elements Applied Per Acre

	<u>Nitrogen</u>		<u>Phosphorus</u>		<u>Potash</u>		<u>Sulphur</u>		<u>Total</u> \$/acre
	<u>lbs</u>	<u>\$/acre</u>	<u>lbs</u>	<u>\$/acre</u>	<u>lbs</u>	<u>\$/acre</u>	<u>lbs</u>	<u>\$/acre</u>	
Improved Pasture									
Perennial Pasture Production	50	\$44.37	0	\$0.00	0	\$0.00	0	\$0.00	\$44.37
Establishment (nurse crop)	50	\$23.62	50	\$54.52	30	\$14.74	15	\$24.10	\$116.97
Unimproved Pasture	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	\$0.00

Improved Pasture acres fertilized annually 80 acres

Unimproved Pasture acres fertilized annually 0 acres

Custom Application - Fertilizer \$10.00 /acre

Chemicals				
	<u>Weed Control</u> \$/acre	<u>Spot Spray</u> \$/acre	<u>Insect Control</u> \$/acre	<u>Total Cost</u> \$/acre
Improved Pasture				
Annual Production	\$0.00	\$1.00	\$0.00	\$1.00
Establishment (nurse crop)	\$14.00	\$0.00	\$0.00	\$14.00
Unimproved Pasture	\$0.00	\$1.00	\$0.00	\$1.00
Custom Application - Herbicide	\$8.00 /acre			

Operating Costs					
Maintenance & Repairs (total cost/year)					
Fence Maintenance (% of investment cost)		2.00	%		
Facilities Maintenance (% of investment cost)		1.00	%		
	<u>Improved Pasture</u>			<u>Unimproved Pasture</u>	
	<u>\$/Acre</u>	<u>Total</u>		<u>\$/Acre</u>	<u>Total</u>
Maintenance & Repairs (total cost/year)					
Fence Maintenance	\$2.46	\$393.54		\$1.86	\$297.42
Maintenance & Repairs	\$0.50	\$80.00		\$0.50	\$80.00
Land Taxes	\$10.00	\$/acre		\$6.00	\$/acre
Miscellaneous	\$0.00	\$/acre		\$0.00	\$/acre
Interest on Operating	9.00	%			

Labour Costs		
	<u>Improved Pasture</u>	<u>Unimproved Pasture</u>
Total hours/season	0.0	0.0
Rate per hour	\$27.00	\$27.00

Land Development & Forage Establishment - Greenfeed Production			
	<u>Yield per Acre</u>	<u>Price per Unit</u>	<u>Value per Acre</u>
Improved Pasture			
Oat greenfeed (nurse crop)	1.50 ton/acre	\$0.040 /lb	\$120.00 (establishment year only)

Pasture Land Costs

	Improved Pasture		Unimproved Pasture	
	160 acres		160 acres	
	\$/Acre	Total	\$/Acre	Total
Market Value (excluding fence, water, facilities)	\$1,875	\$300,000	\$844	\$135,000
Owned Land Equity	75%		75%	
Land Financed	25%		25%	
Land Opportunity Cost (Investment Rate)	0.00%		0.00%	
Land cost				
Finance Rate & Term	6.000%	25 Years	6.000%	25 Years
Principle & Interest Cost	\$36.67	\$5,867	\$16.50	\$2,640
Owned Land Opportunity Cost	\$0.00	\$0	\$0.00	\$0
Total Cost	\$36.67	\$5,867	\$16.50	\$2,640
Pasture Total Cost per Head	\$1.41 /day		\$1.36 /day	
Pasture Investment per Head on Pasture	\$3,191 /acre		\$4,219 /acre	

Other Capital Costs

	Improved Pasture			Unimproved Pasture		
	Value	Useful Life Yrs	Salvage Value %	Value	Useful Life Yrs	Salvage Value %
Other Capital Costs						
Water Development	\$8,000	20	0	\$8,000	20	0
Handling facilities	\$0	20	0	\$0	20	0
Fence Cost	\$19,677	20	0	\$14,871	20	0
Total Other Capital Costs	\$27,677	20	0	\$22,871	20	0
Investment interest rate	2.50 %					
	\$/Acre	Total		\$/Acre	Total	
Other Capital Investment Cost @ 2.5%	\$2.16	\$345.96		\$1.79	\$285.89	
Other Capital Depreciation Cost	\$8.65	\$1,383.84		\$7.15	\$1,143.54	

Fence Costs

	Number of miles of Fence Required		Cost Per Mile of Fence			Improved Pasture Total Cost	Un-Improved Pasture Total Cost
	Improved Pasture	Unimproved Pasture	Materials	Labour	Equipment		
Barbed Wire (4 strand)	2.00	2.00	\$5,147	\$1,118	\$1,170	\$14,871	\$14,871
Electric Wire (4 strand)	0.00	0.00	\$2,510	\$500	\$490	\$0	\$0
Electric Wire (2 strand)	0.00	0.00	\$1,993	\$412	\$435	\$0	\$0
Electric Wire (1 strand)	2.00	0.00	\$1,625	\$370	\$408	\$4,806	\$0
Page Wire (w/optional top wire)	0.00	0.00	\$9,259	\$2,344	\$2,320	\$0	\$0
			Total			\$19,677	\$14,871

For more information on fence costs, [Manitoba Livestock Fence Cost Calculator](#)

Other Assumptions

Land Development Costs:

Includes: (eg. (\$133.00 custom land preparation + \$42.50 grass seed + \$11.25 oat nurse crop seed + \$116.97 est. fertilizer + \$10.00 custom fertilizer applic. + \$14.00 est. herbicide + \$8.00 custom herbicide applic. - \$120.00 greenfeed forage value) / 10 productive years = \$21.57 cost per acre annually)

Fence Maintenance Costs:

Assumes 2% of fence value for annual maintenance & repair.

(eg. (\$19,677 total fence cost x 2% annual repair cost) / 160 pasture acres = \$2.46 cost per acre)

Facilities Maintenance Costs:

Assumes 1% of other capital costs for annual maintenance & repair.

(eg. (\$8,000 total facilities cost x 1% annual repair cost) / 160 pasture acres = \$0.50 cost per acre)

Miscellaneous Costs:

Includes overhead expenses: hydro, telephone, accounting, supplies and insurance, etc.

Land Taxes:

The average for the province was based on land tax assessment and mill rates of a sample of municipalities with pasture less provincial tax rebate.

Interest On Operating:

Interest charges on operating costs are calculated at 9% for six months.

Land Cost:

Based on approximate average pasture values. Budget assumed improved pasture 25% financed at 6% for 25 years, plus 0% land equity opportunity cost and unimproved pasture 25% financed at 6% for 25 years, plus 0% land equity opportunity cost. Budget can be used to estimate cashflow by removing investment cost.

Land P&I Costs:

Improved Pasture (based on \$75,000 Mortgage) = \$5,867 payment per year / 160 acres = \$36.67/acre

Unimproved Pasture (based on \$33,750 Mortgage) = \$2,640 payment per year / 160 acres = \$16.50/acre

Land Investment Costs:

Improved Pasture = (Total Inv. x Owned Equity %) x Inv. Rate % (eg. ((\$1,875 x 75%) x 0%) = \$0.00/acre

Unimproved Pasture = (Total Inv. x Owned Equity %) x Inv. Rate % (eg. ((\$844 x 75%) x 0%) = \$0.00/acre

Other Capital Investment Cost:

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

Other Capital Investment Costs:

Improved Pasture: ((((\$27,677 + \$0.00) / 2) x 2.5% investment rate) / 160 acres = \$2.16 cost per acre

Unimproved Pasture: ((((\$22,871 + \$0.00) / 2) x 2.5% investment rate) / 160 acres = \$1.79 cost per acre

Other Capital Depreciation Cost:

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

Other Capital Depreciation Costs:

Improved Pasture: ((\$27,677 - \$0.00) / 20 years useful life) / 160 pasture acres = \$8.65 cost per acre

Unimproved Pasture: ((\$22,871 - \$0.00) / 20 years useful life) / 160 pasture acres = \$7.15 cost per acre

Grazing Formulas:

Total Animal Animal Month's (AUM's) = 94 head x 1.25 Metabolic Animal Unit Value x 4.5 months = 529

Total AUM's - Available Per Acre = 529 Total AUM's / 160 acres = 3.31

Total Pasture Cost Per AUM = \$17897.77 cost per acre / 529 AUM = \$33.83

April, 2025

Contact Us

For more information, contact a Farm Management Specialist.

- manitoba.ca/agriculture
- mbfarmbusiness@gov.mb.ca
- 1-844-769-6224

Calculating Pasture Capacity - Number of Head Pastured

	<u>Example</u>	<u>Your Farm</u>
1. Animal Unit Month Available per acre* (see table; soil group 3 veg assoc. 11)	3.3	_____
2. Animal Unit Equivalents** (Average weight of animals [^] .75 ÷ 1000 [^] .75lbs)	1.25	_____
3. AUM's available per acre for 1 month (1 ÷ 2)	2.65	_____
4. Grazing period in months	4.5	_____
5. AUM's available per acre for total period (3 ÷ 4)	0.59	_____
6. Total Acres in Pasture	160	_____
7. Carrying Capacity of Pasture (# of Head) (5 x 6)	94	_____

* One Animal Unit Month (AUM) is defined as a 1000 lb beef cow, with or without a nursing calf, with a daily requirement of 26 lbs dry matter forage. Therefore 1 AUM is equal to 780 lbs of dry matter forage.

A more accurate estimate of daily or monthly forage demand of livestock on a grazing system can be reached by using the metabolic weight of the livestock rather than the live weight of the animals. It has been found that metabolic weight accounts for significant variation in dry matter intake among animals of different size (NRC 1996). Metabolic weight is the live weight to the 0.75 power. Beef cattle animal unit equivalents can be determined for animals of different sizes by calculating their metabolic weight as a percentage of the metabolic weight of a 1000 pound cow.

Source Manitoba Crown Lands

Estimated Carrying Capacity: Pick the soil group and vegetative association (from the table above) that most closely represents your land.



Contact us

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