

Guidelines for Estimating Elk Velvet Bull Costs Based on a herd of 30 bulls

September, 2003

This guide is designed to provide planning information and a format for calculating costs of production on a 30 elk velvet bull enterprise. The production costs included in this enterprise budget are not intended as a cost study of the elk industry in Manitoba. Adjustments will be necessary when applying these figures to your own enterprise.

The budget estimates are based on a number of assumptions which are clearly defined in the supporting pages. Productivity and performance assumptions are based on data supplied by specialists as well as data collected from certain producers. Input costs are based on recommended practices and/or information obtained from producers. Good management is assumed in that a balanced ration is being fed, livestock 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 time to track profits or losses; or comparing the plan with the actual production at the end of the planning period.

Disclaimer: This budget is only a guide and is not intended as an in depth study of the cost of production of the Manitoba Elk industry. Interpretation and utilization of this information is the responsibility of the user. If you require assistance with developing your individual budget, please contact your local MAF Farm Management Specialist or Livestock Specialist.

ELK VELVET BULL PROFILE

Number of Velvet Bulls	30
Average value of Velvet Bull	\$1,200
Value Cull Bulls sold for meat	\$400
Percentage of culls sold for meat	0.70
Value Cull Bulls sold for hunting	\$2,250
Percentage of culls sold for hunting	0.30
Average value of cull sold	\$955.00
Velvet Market Price	\$30.00
Average Velvet Production (lbs/head)	17
Mortality Rate (%)	1.0
Replacement Rate (%)	10.00
Pasture Acres	60
Value of pasture per acre	\$300
Fence Cost - per mile	\$12,000
Total fence distance - miles	2

Feed Requirements and Costs

<u>Feed</u>	<u>Kg/Day</u>	<u>Days on Feed</u>	<u>Feed Prices \$/tonne</u>
Hay	7.0	185.0	\$60
Oats	3.0	185.0	\$90
Supplement	0.5	365.0	\$270

Vet, Medicine and Supplies

Parasite control \$/head	\$20.00
Other \$/head	\$0.00

FUEL, OIL, REPAIRS & MAINTENANCE

a) Machinery - total fuel costs	\$300.00
- total repairs	\$200.00
b) Total buildings, fences etc.	\$400.00

Marketing & Transportation

Antlers & culls total cost	\$450.00
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Land Taxes	\$5.00
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Utilities

Hydro	\$100.00
Water	\$0.00
Telephone	\$150.00

Insurance:

Cost per \$100 Capital Invested in	
a). Livestock	\$0.00
b). Building & Equipment	\$0.60
Add'l Coverage for liability (\$/year)	\$30.00

Miscellaneous

License fee per year	\$100.00
Other costs total per year	\$0.00

Operating Interest:

Bank Rate on Deposits (%)	4.0
Bank Rate on Borrowing (%)	6.5

CAPITAL COSTS

	<u>Original Value</u>	<u>Salvage Value (%)</u>	<u>Useful Life (yrs)</u>
Buildings & Improvements			
Building	\$10,000		
Handling Facilities	\$12,000	10	20
Waterers	\$2,000	10	20
Round Bale Feeders	\$0	10	20
Well & Pressure System	\$3,500	10	20
Hydro (1 pole @ \$400)	\$400	10	20
Total Building Cost	\$27,900	10	20
Machinery			
Tractor & Loader	\$2,000	30	10
Quad	\$4,000		
Miscellaneous Machinery	\$400	20	12
Freezer	\$1,000	30	15
Total Machinery Cost	\$7,400		

Land & Fence

Fence (2 miles @ \$12000)	\$24,000	10	20
Pasture (60ac @ \$300)	<u>\$18,000</u>		
Total Land & Fence	\$42,000		

Value of Bulls **\$36,000**

Total Capital Investment **\$113,300**

Labour Costs

Annual Hours per Bull		5
Hourly Labour Rate		\$10.00

ELK VELVET BULL COST SUMMARY - September, 2003

(Based on 30 head)

A. OPERATING COSTS	<u>\$/BULL</u>	<u>\$/LB</u>	<u>TOTAL</u>	<u>Your Cost</u>
1. Feed Costs:				
1.01 Hay	\$77.70	\$4.57	\$2,331	_____
1.02 Grain	49.95	2.94	1,499	_____
1.03 Salt & Minerals/Supplements	<u>49.28</u>	<u>2.90</u>	<u>1478</u>	_____
Total Feed Cost	\$176.93	\$10.41	\$5,308	_____
2. Other Operating Costs:				
2.01 Vet. Medicine & Supplies	20.00	1.18	600	_____
2.02 Fuel, Mtce. & Repairs	30.00	1.76	900	_____
2.03 Utilities	8.33	0.49	250	_____
2.04 Marketing Costs	15.00	0.88	450	_____
2.05 Death Loss	12.00	0.71	360	_____
2.06 Insurance	8.06	0.47	242	_____
2.07 Herd Replacement	24.50	1.44	735	_____
2.08 Land Taxes	10.00	0.59	300	_____
2.09 Miscellaneous	<u>3.33</u>	<u>0.20</u>	<u>100</u>	_____
Subtotal Operating Costs	308.15	18.13	9,245	_____
2.10 Operating Interest	<u>10.01</u>	<u>0.59</u>	<u>300.3</u>	_____
TOTAL OPERATING COSTS	\$318.16	\$18.72	\$9,545	_____
B. FIXED COSTS				
3. Depreciation				
3.01 Buildings	41.85	2.46	1,256	_____
3.02 Machinery & Equipment	16.45	0.97	494	_____
3.03 Fence	36.00	2.12	1,080	_____
4. Investment				
4.01 Buildings	20.46	1.20	614	_____
4.02 Machinery & Equipment	6.39	0.38	192	_____
4.03 Livestock	48.00	2.82	1,440	_____
4.04 Pasture Land & Fencing	<u>41.60</u>	<u>2.45</u>	<u>1248</u>	_____
TOTAL FIXED COSTS	\$210.75	\$12.40	\$6,324	_____
C. LABOUR COSTS	\$50.00	\$2.94	\$1,500	_____
TOTAL COST OF PRODUCTION	\$578.91	\$34.06	\$17,369	_____

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.

EELK VELVET BULL PRODUCTION COST WORKSHEET - September, 2003

Assumptions

1. This budget outlines the costs for a 30 head elk bull velveting enterprise.
2. All feed is valued at fair market value.
3. Death loss was estimated at 1%.
4. Production of velvet antlers was assumed to average 17 lbs per year over the 10 years of productive life.
5. The Elk enterprise is situated on a 60 acre parcel of land with an average value of \$300 per acre.

A. OPERATING COSTS

Your Cost

1. Feed Costs:

1.01 Hay Costs

	7.0	kg hay/day	
x	185	days/year	
÷	1,000	kg/tonne	
x	<u>\$60.00</u>	<u>/tonne</u>	
=	\$77.70	/bull	

1.02 Grain Costs

	3.0	kg oats/day	
x	185	days/year	
÷	1,000	kg/tonne	
x	<u>\$90.00</u>	<u>/tonne</u>	
=	\$49.95	/bull	

Elk Velvet Bull Costs

Your Cost

1.03 Supplement Costs

		0.5	kg supp/day	_____
x		365	days/year	_____
÷		1,000	kg/tonne	_____
x		<u>\$270.00</u>	<u>/tonne</u>	_____
=		\$49.28	/bull	_____

2. Other Operating Costs:

2.01 Veterinary Medicine & Supplies

		\$20.00	parasite control	
±		<u>\$0.00</u>	<u>other vet & med</u>	
=		\$20.00	/bull	

2.02 Fuel, Oil, Repairs & Maintenance

Machinery		\$300.00	annual fuel cost	_____
	+	<u>\$200.00</u>	<u>oil, repairs & maintenance</u>	_____
	=	\$500.00	total cost	_____
	÷	<u>30</u>	<u>bulls</u>	_____
	=	\$16.67	/bull	_____

Buildings,Fences etc.		\$400.00	annual repair & mtc.	_____
	÷	<u>30</u>	<u>bulls</u>	_____
	=	\$13.33	/bull	_____

Total	=	\$30.00	/bull	_____
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2.03 Utilities

		\$250.00	annual utilities costs	_____
	÷	<u>30</u>	<u>bulls</u>	_____
	=	\$8.33	/bull	_____

2.04 Marketing Costs

		\$450.00	marketing antlers & culls	_____
	÷	<u>30</u>	<u>bulls</u>	_____
	=	\$15.00	/bull	_____

Elk Velvet Bull Costs

			<u>Your Cost</u>
2.05 Death Loss			
x	\$1,200	/bull investment	_____
x	<u>1.0</u>	<u>(%) Mortality Rate</u>	_____
=	\$12.00	/bull	_____
2.06 Insurance			
	\$35,300	bldg & equip investment	_____
x	\$0.60	cost/\$100 capital	_____
÷	100		_____
÷	<u>30</u>	<u>bulls</u>	_____
=	\$7.06	/bull	_____
	\$36,000	herd investment	_____
x	\$0.00	cost/\$100 capital	_____
÷	100		_____
÷	<u>30</u>	<u>bulls</u>	_____
=	\$0.00	/bull	_____
	\$30	add'l coverage for liability	_____
÷	<u>30</u>	<u>bulls</u>	_____
=	\$1.00	/bull	_____
Total Insurance =	\$8.06	/bull	_____
2.07 Herd Replacement			
	\$1,200	/replacement bull	_____
-	<u>\$955</u>	<u>/cull (meat & trophy sales)</u>	_____
=	\$245	net cost	_____
x	<u>10.0</u>	<u>% replacement rate</u>	_____
=	\$24.50	/bull	_____
2.08 Land Taxes			
	\$300	land taxes	_____
÷	<u>30</u>	<u>bulls</u>	_____
=	\$10.00	/bull	_____

Elk Velvet Bull Costs

Your Cost

2.09 Miscellaneous

	\$0.00	other costs	_____
+	\$100.00	license	_____
÷	<u>30</u>	<u>bulls</u>	_____
=	\$3.33	/bull	_____

2.10 Operating Interest

	\$308.15	subtotal operating costs	_____
÷	2	average	_____
x	<u>6.5</u>	<u>% operating interest rate</u>	_____
=	\$10.01	/bull	_____

Your Cost

Capital Costs

Buildings & Improvements

Building	\$10,000	
Handling Facilities	\$12,000	_____
Waterers	\$2,000	_____
Round Bale Feeders	\$0	_____
Well & Pressure System	\$3,500	_____
Hydro (1 pole @ \$400)	\$400	_____
Total Building Cost	\$27,900	_____

Machinery

Tractor & Loader	\$2,000	_____
Quad	\$4,000	_____
Miscellaneous Machinery	\$400	_____
Freezer	\$1,000	_____
Total Machinery Cost	\$7,400	_____

Land & Fence

Fence (2 miles @ \$12000)	\$24,000	_____
Pasture (60ac @ \$300)	\$18,000	_____
Total Land & Fence	\$42,000	_____

Value of Bulls (30 @\$1200)	\$36,000	_____
Total Capital Investment	\$113,300	_____

B. FIXED COSTS

3. Depreciation:

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

3.01 Buildings & Improvements

	\$27,900	original value	_____
-	\$2,790	salvage value	_____
÷	20	years useful life	_____
÷	<u>30</u>	<u>bulls</u>	_____
=	\$41.85	/bull	_____

Elk Velvet Bull Costs

Your Cost

3.02 Machinery & Equipment

Tractor, Loader & Quat	\$6,000	original value	_____
-	\$1,800	salvage value	_____
÷	10	years useful life	_____
÷	<u>30</u>	<u>bulls</u>	_____
=	\$14.00	/bull	_____
Miscellaneous	\$400	original value	_____
-	\$80	salvage value	_____
÷	12	years useful life	_____
÷	<u>30</u>	<u>bulls</u>	_____
=	\$0.89	/bull	_____
Freezer	\$1,000	original value	_____
-	\$300	salvage value	_____
÷	15	years useful life	_____
÷	<u>30</u>	<u>bulls</u>	_____
=	\$1.56	/bull	_____
Total	\$16.45	/bull	_____

3.03 Fence

	\$24,000	original value	_____
-	\$2,400	salvage value	_____
÷	20	years useful life	_____
÷	<u>30</u>	<u>bulls</u>	_____
=	\$36.00	/bull	_____

Your Cost

4. Investment:
$$\frac{\text{Original Value} + \text{Salvage Value}}{2} \times \text{Investment Rate}$$

4.01 Buildings & Improvements

	\$27,900	original building value	_____
+	\$2,790	salvage value	_____
÷	2	average	_____
x	4.0	% investment rate	_____
÷	<u>30</u>	<u>bulls</u>	_____
=	\$20.46	/bull	_____

4.02 Machinery & Equipment

Tractor, Loader & Quac	\$6,000	original Value	_____
+	\$1,800	salvage value	_____
÷	2	average	_____
x	4.0	% investment rate	_____
÷	<u>30</u>	<u>bulls</u>	_____
=	\$5.20	/bull	_____

Miscellaneous	\$400	original value	_____
+	\$80	salvage value	_____
÷	2	average	_____
x	4.0	% investment rate	_____
÷	<u>30</u>	<u>bulls</u>	_____
=	\$0.32	/bull	_____

Freezer	\$1,000	original value	_____
+	\$300	salvage value	_____
÷	2	average	_____
x	4.0	% investment rate	_____
÷	<u>30</u>	<u>bulls</u>	_____
=	\$0.87	/bull	_____

Total	\$6.39	/bull	_____
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Elk Velvet Bull Costs

Your Cost

4.03 Livestock

		\$1,200	/bull	_____
x		<u>4.0</u>	<u>% investment rate</u>	_____
=		\$48.00	/bull	_____

4.04 Pasture Land & Fencing

Fence Investment		\$24,000	original value	_____
+		\$2,400	salvage value	_____
÷		2	average	_____
x		4.0	% investment rate	_____
÷		<u>30</u>	<u>bulls</u>	_____
=		\$17.60	/bull	_____

Land Investment		\$18,000	original value	_____
x		4.0	% investment rate	_____
÷		<u>30</u>	<u>bulls</u>	_____
=		\$24.00	/bull	_____

Total	=	\$41.60	/bull	_____
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C. LABOUR COSTS

		5	hours/bull	_____
x		<u>\$10.00</u>	<u>hourly rate</u>	_____
=		\$50.00	/bull	_____

For more information contact your local Manitoba Agriculture and Food office.

Prepared by:

Peter Blawat P.Ag.
Farm Management Specialist

Ian Thorliefson
Elk Specialist

Bill Steeds P.Ag.
Manager Livestock Section