

Guidelines For Estimating **Feedlot Finishing Costs** For Weight Range of 650 - 1400 lbs. Based on feeding 500 Steers

Date: November, 2011

Cattle feeding is a high risk business requiring large amounts of short term capital to buy feeder cattle and feed. With cyclical price variations for both livestock and feed, successful management involves careful consideration of costs, projection of markets and sound judgement.

The following budget is an estimate of the costs of production encountered in finishing beef cattle in a farm feedlot situation. This budget aims to help Manitoba livestock producers calculate costs and ensure appropriate factors are considered when determining breakeven prices.

The assumptions on which costs are calculated are clearly defined in the supporting pages. When interpreting these costs for an individual situation, adjustments may be required. Note that on farm feed costs are based on market prices at the farm. It is assumed that all feed is grown on the farm, except for supplements. Each assumption must be examined and adjustments made where necessary, to apply to the producer's own situation.

Disclaimer: This budget is only a guide and is not intended as an in depth study of the cost of production of the Manitoba cattle 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 MAFRI Business Development Specialist or Livestock Farm Production Extension Specialist.

Feedlot Finishing Cost Summary, November, 2011

	<u>Cost/Head</u>	<u>Total Cost</u>	<u>Your Cost</u>
A. Operating Costs			
1. Feed Costs			
1.01 Rolled Barley	\$378.38	\$189,190	_____
1.02 Barley Silage	\$57.75	\$28,875	_____
1.03 Grass Hay	\$2.63	\$1,315	_____
1.04 Supplement	<u>\$37.19</u>	<u>\$18,595</u>	_____
Total Feed Costs	\$475.95	\$237,975	_____
2. Other Operating Costs			
2.01 Feeder Cost	\$940.90	\$470,450	_____
2.02 Straw	\$15.00	\$7,500	_____
2.03 Veterinary Medicine & Supplies	\$18.38	\$9,190	_____
2.04 Annual Fuel & Repair Costs	\$9.90	\$4,950	_____
2.05 Utilities	\$6.30	\$3,150	_____
2.06 Marketing & Transportation	\$90.26	\$45,130	_____
2.07 Insurance	\$1.27	\$635	_____
2.08 Manure Removal	\$8.80	\$4,400	_____
2.09 Barn & Office Supplies	\$1.00	\$500	_____
2.10 Death Loss	<u>\$18.14</u>	<u>\$9,070</u>	_____
Subtotal Operating Costs	\$1,585.90	\$792,950	_____
2.11 Operating Interest	<u>\$45.65</u>	<u>\$22,825</u>	_____
Total Operating Costs	\$1,631.55	\$815,775	_____
B. Fixed Costs			
3. Depreciation			
3.01 Buildings	\$6.41	\$3,205	_____
3.02 Machinery & Equipment	\$12.00	\$6,000	_____
4. Investment			
4.01 Buildings	\$2.15	\$1,075	_____
4.02 Machinery & Equipment	<u>\$2.48</u>	<u>\$1,240</u>	_____
Total Fixed Costs	\$23.04	\$11,520	_____
Total Operating and Fixed Costs	\$1,654.59	\$827,295	_____
C. Labour	\$25.00	\$12,500	_____
TOTAL COST OF PRODUCTION	\$1,679.59	\$839,795	_____

Cost per lb of gain sold	<u>\$/cwt</u>	
Feed Costs	\$69.99	_____
Operating Costs	\$104.20	_____
Operating & Fixed Costs	\$107.59	_____
Total Costs	\$111.26	_____
Breakeven Selling Price		
Operating Costs	\$122.67	_____
Operating & Fixed Costs	\$124.41	_____
Total Costs	\$126.28	_____
Breakeven Purchase Price (based on \$115/cwt market price)		
Operating Costs	\$126.30	_____
Operating & Fixed Costs	\$122.76	_____
Total Costs	\$118.91	_____

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.

Feedlot Finishing Production Costs - Input

Assumptions

1. This budget outlines the cost of production for a cattle feeder's operation.
2. Buildings and equipment are valued at new cost.
3. All feed is purchased.

Herd Profile	<u>Total</u>	
Number of Feeders Purchased	500	head
Feeder Cattle Mortality Rate	1.50	%
Feeder Purchased Weight	650	lbs
Feeder Cattle Price	\$142.00	/cwt
Finish Weight	1,400	lbs
Finish Selling Price	\$115.00	/cwt
Percent Shrink - finished	5.00	%
Percent Shrink - feeder	0.00	%
Average Daily Gain	3.25	lbs/day
Days On Feed	231	days

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

Feed Costs	<u>\$/unit</u>	<u>Feeder Cattle Requirement</u>	<u>Days on Feed</u>
Rolled Barley	\$4.25 /bu	18.50 (lbs/day)	231
Barley Silage	\$40.00 /ton	12.50 (lbs/day)	231
Grass Hay	\$70.00 /ton	5.00 (lbs/day)	15
Supplement 32%	\$355.00 /tonne	1.00 (lbs/day)	231
Other Feed #2	\$0.00	0.00 (lbs/day)	
Salt, Vitamins & Mineral	\$0.00 /lb	0.00 (lbs/year)	

FOOTNOTE: 1 bushel (bu) barley = 48 lbs = 21.8 kg
 1 kilogram (kg) = 2.2046 pounds (lbs)
 1 tonne (t) = 1,000 kg

Other Operating Costs	<u>Total</u>	
Feeder Purchase Costs		
Buying Commission	\$1.00	/cwt
Insurance	\$1.00	/head
Trucking Cost	\$1.60	/cwt
Straw		
Tons/feeder	0.50	tons
Cost	\$30.00	/ton

Veterinary Medicine & Supplies**Cattle Medication**

Cost/Head(IBR,BVD,PI3,BVD,BRSV, Pasteurella)	\$4.60	
Vitamin A-D	\$0.50	
External & Internal Parasites	\$0.96	
Blackleg & Haemophilus	\$1.06	
Growth Implants	\$3.42	
Antibiotics	\$7.00	

Herd health program**Professional Services**

Total Yearly Hours	2.00	hours
Charge per Hour	\$150.00	/hour

Transportation

Total Kilometres (round trip)	80.00	km
Charge per km	\$0.75	/km
Number of Yearly Visits	2	

Annual Fuel & Repair Costs

Repairs (Machinery, Equipment & Facilities)	\$1,650.00
Fuel Costs	\$3,300.00

Utilities

Yearly Telephone & Hydro	\$3,150.00
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Marketing Costs**Trucking Cost**

Distance	700	miles
Rate	\$4.75	/loaded mile
Truck Capacity	54,000	lbs/load
Number of head per load	39	per load
Selling commission	\$0.00	/head

Other Costs

MCEC Fee	\$2.00	/head
MCPA Levy	\$3.00	/head

Manure Removal

Annual Cost for Removal	\$4,400.00
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Insurance

Cost per \$100 Capital Invested in:	
a) Livestock	\$0.00
b) Building & Equipment	\$0.40
Additional Coverage for Liability	\$49.00

Barn & Office Supplies

Total yearly expense relating to barn

\$500.00**Operating Interest Rate****5.75 %****Investment Interest Rate****2.75 %**

FOOTNOTE: cwt = hundred-weight = 100 lbs

Capital Costs

	Original Value	Salvage Value	Useful Life
Buildings, Corrals & Water System			
Windbreak fence	\$7,350	10 %	20 years
Pens	\$4,540	10 %	20 years
Shelters	\$0	10 %	20 years
Handling Facilities	\$5,500	10 %	20 years
Waterers	\$5,000	10 %	20 years
Gates	\$1,280	10 %	20 years
Bunk Feeders	\$23,000	10 %	20 years
Well & Pressure System	\$6,000	10 %	20 years
Grain Bin	\$3,500	10 %	20 years
Landscaping	\$15,000	10 %	20 years
Total	\$71,170		
Machinery & Equipment			
Tractor & Loader	\$50,000	20 %	10 years
Miscellaneous	\$25,000	20 %	10 years
Total Investment	\$146,170		

Labour Costs**Total**

Labour Hours

2.00 hours/head

Labour Rate

\$12.50 /hour

Assumptions

1. Average daily gain (ADG) was assumed to be 3.25 lbs/day.
2. It was assumed that the feeder steer weighed in at 650 lbs., and finished at 1400 lbs (1330 lbs after a 5% shrink.)
3. Days on feed was 231. Hay was fed for 15 days.
4. Investment in feedlot facilities and equipment was assumed to handle 500 head.

Feedlot Finishing Production Cost Worksheet

		<u>Your Cost</u>
A. Operating Costs		
1. Feed Costs		
1.01 Rolled Barley		
	231.00	days on grain
x	18.50	lbs/feeder/day
÷	48.00	lbs/bushel
<u>x</u>	<u>\$4.25</u>	<u>/bushel</u>
=	\$378.38	/feeder
1.02 Barley Silage		
	231.00	days on silage
x	12.50	lbs/feeder/day
÷	2,000.00	lbs/ton
<u>x</u>	<u>\$40.00</u>	<u>/ton</u>
=	\$57.75	/feeder
1.03 Grass Hay		
	15.00	days on hay
x	5.00	lbs/feeder/day
÷	2,000.00	lbs/ton
<u>x</u>	<u>\$70.00</u>	<u>/ton</u>
=	\$2.63	/feeder
1.04 Supplement (Salt, Vitamins, Minerals, Ionophore)		
	231.00	days on supplement
x	1.00	lbs/feeder/day
÷	2,205.00	lbs/tonne
<u>x</u>	<u>\$355.00</u>	<u>/tonne</u>
=	\$37.19	/feeder

2. Other Operating Costs

2.01 Feeder Cattle Cost

Buying Commission & insurance

\$6.50 commision/feeder
 \$1.00 insurance/feeder

Trucking-in

\$1.60 /cwt

x 650.00 lbs/feeder

÷ 100.00 lbs/cwt

= \$10.40 /feeder

650.00 lbs/feeder

x \$142.00 /cwt

÷ 100.00 lbs/cwt

= \$923.00 /feeder

Total = \$940.90 /feeder

2.02 Straw

0.50 tons/feeder/year

x \$30.00 /ton

= \$15.00 /feeder

2.03 Veterinary Medicine & Supplies

Cattle Medication

\$4.60 IBR,PI3,BVD,BRSV & Pasteurella

+ \$0.50 Vitamin A,D & E

+ \$0.96 External & Internal Parasites

+ \$1.06 Blackleg & Haemphilus

+ \$3.42 Implant

+ \$7.00 Antibiotics

= \$17.54 /feeder

Professional Services

\$150.00 /hour charge

x 2.00 hours

÷ 500 feeder cattle

= \$0.60 /feeder

Transportation Costs

	\$0.75	/km charge	_____
x	80.00	kilometres	_____
x	2.00	visits	_____
÷	<u>500</u>	<u>feeder cattle</u>	_____
=	\$0.24	/feeder	_____

Total = \$18.38 /feeder _____

2.04 Annual Fuel & Repair Costs

	\$1,650	repairs	_____
+	\$3,300	fuel costs	_____
÷	<u>500</u>	<u>feeder cattle</u>	_____
=	\$9.90	/feeder	_____

2.05 Utilities

	\$3,150	utilities	_____
÷	<u>500</u>	<u>feeder cattle</u>	_____
=	\$6.30	/feeder	_____

2.06 Marketing & Transportation

	\$2.00	MCEC Fee	_____
	\$3.00	MCPA Levy	_____

Trucking	700.00	miles	_____
x	\$4.75	/loaded mile	_____
÷	<u>39.00</u>	<u>head/load</u>	_____
=	\$85.26	/feeder	_____

Total = \$90.26 /feeder _____

2.07 Insurance

	\$146,170	building & equipment investment	_____
x	\$0.40	/\$100 capital	_____
÷	100.00	/\$100 capital	_____
÷	<u>500</u>	<u>feeder cattle</u>	_____
=	\$1.17	/feeder/year	_____

	\$633,250	feeder investment	_____
x	\$0.00	/\$100 capital	_____
÷	100.00	/\$100	_____
÷	<u>500</u>	<u>feeder cattle</u>	_____
=	\$0.00	/feeder/year	_____

		\$49.00	liability premium	_____
	÷	<u>500</u>	<u>feeder cattle</u>	_____
	=	\$0.10	/feeder/year	_____
Total	=	\$1.27	/feeder	_____
2.08 Manure Removal				
		\$4,400	removal cost	_____
	÷	<u>500</u>	<u>feeder cattle</u>	_____
	=	\$8.80	/feeder	_____
2.09 Barn & Office Supplies				
		\$500.00	total barn expenses	_____
	÷	<u>500</u>	<u>feeder cattle</u>	_____
	=	\$1.00	/feeder	_____
2.10 Death Loss				
		\$940.90	feeder cattle cost	_____
	+	\$1,567.76	maximum value	_____
	-	\$90.26	marketing costs	_____
	÷	2.00	average value	_____
	×	<u>1.50</u>	<u>% mortality rate</u>	_____
	=	\$18.14	/feeder	_____
2.11 Operating Interest				
		\$940.90	feeder cost	_____
	+	\$313.43	½ of feed & other costs	_____
	x	5.75	% operating interest	_____
	x	231.00	days on feed	_____
	÷	<u>365.00</u>	<u>365 days</u>	_____
	=	\$45.65	/feeder	_____

Capital Costs

**Buildings, Corrals
& Water System**

Windbreak fence	\$7,350	
Pens	\$4,540	
Handling Facilities	\$5,500	
Waterers	\$5,000	
Gates	\$1,280	
Bunk Feeders	\$23,000	
Well & Pressure System	\$6,000	
Grain Bin	\$3,500	
Landscaping	\$15,000	
Total	\$71,170	

Machinery & Equipment

Tractor & Loader	\$50,000	
Miscellaneous	\$25,000	
Total	\$75,000	

Total Investment	\$146,170	
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B. Fixed Costs

3. Depreciation

Original Cost - Salvage Value
Useful Life

3.01 Buildings

	\$71,170	original cost	
-	\$7,117	salvage value	
÷	20.00	years useful life	
÷	500	feeder cattle	
=	\$6.41	/feeder	

3.02 Machinery & Equipment

	\$75,000	original cost	
-	\$15,000	salvage value	
÷	10.00	years useful life	
÷	500	feeder cattle	
=	\$12.00	/feeder	

4. Investment	<u>Original Cost + Salvage Value</u> x Investment Rate		
	2		
4.01 Buildings			
	\$71,170	original cost	_____
+	\$7,117	salvage value	_____
÷	2.00	average	_____
x	2.75	% investment rate	_____
÷	<u>500</u>	<u>feeder cattle</u>	_____
=	\$2.15	/feeder	_____
4.02 Machinery & Equipment			
	\$75,000	original cost	_____
+	\$15,000	salvage value	_____
÷	2.00	average	_____
x	2.75	% investment rate	_____
÷	<u>500</u>	<u>feeder cattle</u>	_____
=	\$2.48	/feeder	_____
C. Labour			
	2.00	hours/feeder/year	_____
x	<u>\$12.50</u>	<u>/hour</u>	_____
=	\$25.00	/feeder	_____

Breakeven Calculations

				<u>Your Farm</u>
Cost per lb of gain sold				
Feed Costs		\$475.95	feed cost	_____
	÷	680.00	<u>weight gain</u>	_____
	=	\$0.70	/lb	_____
 Operating Costs		 \$1,631.55	 operating costs	 _____
	-	\$923.00	feeder cost	_____
	÷	680.00	<u>weight gain</u>	_____
	=	\$1.04	/lb	_____
 Total Operating & Fixed		 \$1,654.59	 operating & fixed	 _____
	-	\$923.00	feeder cost	_____
	÷	680.00	<u>weight gain</u>	_____
	=	\$1.08	/lb	_____
 Total Costs		 \$1,679.59	 total	 _____
	-	\$923.00	feeder cost	_____
	÷	680.00	<u>weight gain</u>	_____
	=	\$1.11	/lb	_____
 Breakeven selling price				
Operating Costs		\$1,631.55	operating costs	_____
	÷	1,330.00	<u>lbs shrunk weight</u>	_____
	=	\$1.23	/lb	_____
 Operating & Fixed		 \$1,654.59	 operating & fixed costs	 _____
	÷	1,330.00	<u>lbs shrunk weight</u>	_____
	=	\$1.24	/lb	_____
 Total Costs		 \$1,679.59	 total costs	 _____
	÷	1,330.00	<u>lbs shrunk weight</u>	_____
	=	\$1.26	/lb	_____
 Breakeven purchase price				
Operating Costs		1,330.00	lbs shrunk weight	_____
	x	\$115.00	<u>\$/cwt selling price</u>	_____
	=	\$1,529.50	income	_____
	-	\$708.55	operating less feeder cost	_____
	÷	650.00	<u>lbs purchase net weight</u>	_____
	=	\$1.26	/lb	_____

Operating & Fixed	1,330.00	lbs shrunk weight	_____
x	\$115.00	\$/cwt selling price	_____
=	\$1,529.50	income	_____
-	\$731.59	op & fixed less feeder cost	_____
÷	<u>650.00</u>	<u>lbs purchase weight</u>	_____
=	\$1.23	/lb	_____
Total Costs	1,330.00	lbs shrunk weight	_____
x	\$115.00	\$/cwt selling price	_____
=	\$1,529.50	income	_____
-	\$756.59	total less feeder cost	_____
÷	<u>650.00</u>	<u>lbs purchase weight</u>	_____
=	\$1.19	/lb	_____

For more information contact your local MAFRI Office.

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Finished Beef

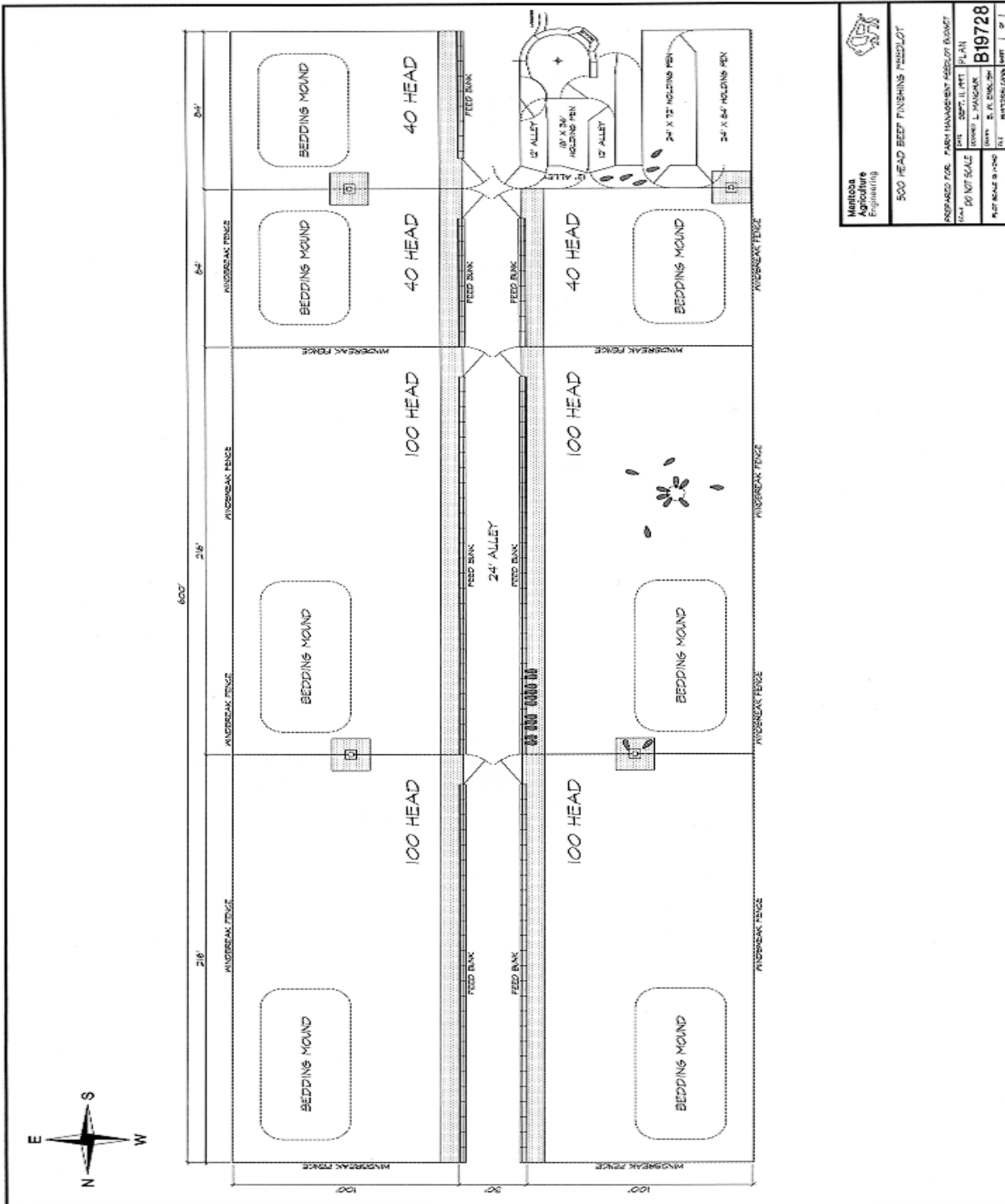
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Beef Finishing Feedlot 500 Head



500 HEAD BEEF FINISHING FEEDLOT	
PREPARED FOR: FARM MANAGEMENT CONSULTING GROUP DATE: SEPT. 11, 1977 DRAWN BY: L. VAUGHAN CHECKED BY: E. C. ENGLISH PLOT MADE BY: 1977	PLAN B19728 SHEET 1 OF 1