Guidelines For Estimating

Shortkeep Feeder Costs

For Weight Range of 850 - 1450 lbs

Based on winter feeding 500 steers & selling in spring

Date: September, 2007

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. The purpose of this budget is to assist Manitoba livestock producers to calculate their own cost of production and take into consideration the factors that should be included when budgeting to determine 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.

Shortkeep Cattle Production Costs - Input

Assumptions

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

Herd Profile	**Total**	
Number Purchased	**500**	head
Feeder Cattle Mortality Rate	**1.00**	%
Feeder Purchased Weight	**850**	lbs
Feeder Cattle Price	**$98.00**	/cwt
Finish Weight	**1,450**	lbs
Finish Selling Price	**$91.00**	/cwt
Number of turns per year	**2**	turns/year
Percent Shrink - finished	**5.00**	%
Percent Shrink - feeder	**0.00**	%
Average Daily Gain	**3.5**	lbs/day
Days On Feed	171	days

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

Feed Costs	**$/unit**		**Feeder Cattle Requirement**		**Days on Feed**
Rolled Barley	**$3.40**	/bu	**24.00**	(lbs/day)	171
Barley Silage	**$32.00**	/ton	**12.00**	(lbs/day)	171
Canola	**$0.00**		**0.00**	(lbs/day)	
Other Feed #1	**$0.00**		**0.00**	(lbs/day)	
Other Feed #2	**$0.00**		**0.00**	(lbs/day)	
Supplement 32%	**$285.00**	/tonne	**1.00**	(lbs/day)	171

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	**Total**	
Feeder Purchase Costs		
Buying Commission	**$6.75**	/head
Trucking-in	**$1.50**	/cwt
Insurance	**$1.00**	/head

Straw		
Tons/feeder	**0.25**	tons
Cost	**$20.00**	/ton
Veterinary Medicine & Supplies		
Cattle Medication		
Vitamin A-D	**$0.65**	/head
External & Internal Parasites	**$3.26**	/head
Blackleg	**$0.53**	/head
Growth Implants	**$1.71**	/head
Antibiotics	**$2.50**	/head
Herd health program		
Professional Services		
Total Yearly Hours	**2.00**	hours
Charge	**$135.00**	/hour
Transportation		
Total Kilometres (round trip)	**80.00**	km
Charge per km	**$1.00**	/km
Number of Yearly Visits	**3**	
Fuel & Repair Costs		
Repairs (Machinery, Equipment & Facilities)	**$900.00**	
Fuel Costs	**$1,950.00**	
Utilities		
Telephone & Hydro	**$2,000.00**	
Trucking Cost		
Distance	**700**	miles
Rate	**$4.25**	/loaded mile
Truck Capacity	**54,000**	lbs/load
Number of head per load	**37**	head
Marketing costs to US	**$17.00**	head
Other Costs		
MCEC Fee	**$2.00**	/head
MCPA Levy	**$3.00**	/cwt
Manure Removal		
Cost for Removal	**$3,200**	

Insurance

Cost per $100 Capital Invested in:		
a) Livestock	**$0.00**	/$100
b) Building & Equipment	**$0.45**	/$100
Additional Coverage for Liability	**$49.00**	/year

Barn & Office Supplies

Total expense relating to barn	**$1,000.00**	

Operating Interest Rate	**6.50**	%
Investment Interest Rate	**4.00**	%

FOOTNOTE: cwt = hundred-weight = 100 lbs

Capital Costs

Buildings,Corrals & Water System	**Original Value**	**Salvage Value**	**Useful Life**
Windbreak fence	**$7,350**	**10** %	**20** years
Pens	**$4,540**	**10** %	**20** years
Grain Bin	**$3,500**	**10** %	**20** years
Handling Facilities	**$5,500**	**10** %	**20** years
Waterers	**$5,000**	**10** %	**20** years
Gates	**$1,280**	**10** %	**20** years
Feeders	**$0**	**10** %	**20** years
Bunk Feeders	**$23,000**	**10** %	**20** years
Well & Pressure System	**$6,000**	**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	**1.25**	hours/head/year
Labour Rate	**$11.00**	/hour

Shortkeep Cattle Production Cost Summary September, 2007

	Cost/Head	Total Cost	Your Cost
A. Operating Costs			
1. Feed Costs			
1.01 Ground Barley	$290.70	$145,350	
1.02 Barley Silage	$32.83	$16,415	
1.03 Supplement	$22.10	$11,050	
Total Feed Costs	**$345.63**	**$172,815**	
2. Other Operating Costs			
2.01 Feeder Cost	$853.50	$426,750	
2.02 Straw	$5.00	$2,500	
2.03 Veterinary Medicine & Supplies	$9.67	$4,835	
2.04 Fuel & Repair Costs	$5.70	$2,850	
2.05 Utilities	$4.00	$2,000	
2.06 Marketing Costs	$102.41	$51,205	
2.07 Insurance	$0.76	$380	
2.08 Manure Removal	$6.40	$3,200	
2.09 Barn & Office Supplies	$2.00	$1,000	
2.10 Death Loss	$10.43	$5,215	
Subtotal Operating Costs	$1,345.50	$672,750	
2.11 Operating Interest	$33.32	$16,660	
Total Operating Costs	**$1,378.82**	**$689,410**	
B. Fixed Costs			
3. Depreciation			
3.01 Buildings	$3.20	$1,600	
3.02 Machinery & Equipment	$6.00	$3,000	
4. Investment			
4.01 Buildings	$1.57	$783	
4.02 Machinery & Equipment	$1.80	$900	
Total Fixed Costs	**$12.57**	**$6,283**	
Total Operating and Fixed Costs	**$1,391.39**	**$695,693**	
C. Labour	$13.75	$6,875	
Total Cost of Production	**$1,405.14**	**$702,568**	

Cost per lb of gain sold	**$/cwt**	
Feed Costs	$65.52	
Operating Costs	$103.47	
Operating & fixed	$105.86	
Total costs	$108.46	
Breakeven Selling Price		
Operating Costs	$100.10	
Operating & fixed	$101.01	
Total costs	$102.01	
Breakeven Purchase Price (base on $91/cwt market price)		
Operating Costs	$83.31	
Operating & fixed	$81.83	
Total costs	$80.22	

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.

Assumptions

1. Average daily gain (ADG) was assumed to be 3.5 lbs/day
2. It was assumed that the feeder steer weighed in at 850 lbs. shrunk weight, finish weight was estimated at 1450 lbs (1378 after 5 % shrink).
3. Days on feed:171days.
4. Investment in feedlot facilities and equipment was assumed to handle 500 head at a time or with 2 turns 1000 head over the year.

Shortkeep Cattle Production Cost Worksheet

A. Operating Costs				**Your Cost**
1. Feed Costs				
1.01 Ground Barley				
		171.00	days on grain	
	x	24.00	lbs/feeder/day	
	÷	48.00	lbs/bushel	
	x	$3.40	/bushel	
	=	**$290.70**	**/feeder**	
1.02 Silage				
		171.00	days on silage	
	x	12.00	lbs/feeder/day	
	÷	2,000.00	lbs/ton	
	x	$32.00	/ton	
	=	**$32.83**	**/feeder**	
1.03 Supplement (Salt, Vitamins, Minerals, Ionophore)				
		171.00	days on supplement	
	x	1.00	lbs/feeder/day	
	÷	2,205.00	lbs/tonne	
	x	$285.00	/tonnne	
	=	**$22.10**	**/feeder**	
2. Other Operating Costs				
2.01 Feeder Cattle Cost				
Buying Commission		$6.75	/feeder	
Insurance		$1.00	/feeder	
Trucking-in		$1.50	/cwt	
	x	850.00	lbs/feeder	
	÷	100.00	lbs/cwt	
	=	$12.75	/feeder	

Feeder		850.00	lbs/feeder	
	x	$98.00	/cwt	
	÷	100.00	lbs/cwt	
	=	$833.00	/feeder	
Total	**=**	**$853.50**	**/feeder**	

2.02 Straw

		0.25	tons/feeder	
	x	$20.00	/ton	
	=	**$5.00**	**/feeder**	

2.03 Veterinary Medicine & Supplies

Cattle Medication

	+	$0.65	Vitamins	
	+	$3.26	Parasite control	
	+	$0.53	Blackleg	
	+	$1.71	Growth Implants	
	+	$2.50	Antibiotics	
	=	$8.65	/feeder	

Professional Services

		135.00	/hour charge	
	x	2.00	hours	
	÷	500	feeder cattle	
	=	$0.54	/feeder	

Transportation

		$1.00	/km charge	
	x	80.00	kilometers	
	x	3.00	visits	
	÷	500	feeder cattle	
	=	0.48	/feeder	
Total	**=**	**$9.67**	**/feeder**	

2.04 Fuel & Repair Costs

		$900	repairs	
	+	$1,950	fuel costs	
	÷	500	feeder cattle	
	=	**$5.70**	**/feeder**	

2.05 Utilities

	$2,000	utilities	
÷	500	feeder cattle	
=	**$4.00**	**/feeder**	

2.06 Marketing & Transportation

	$2.00	MCEC Fee	
	$3.00	MCPA levy	
Trucking	700.00	miles	
x	$4.25	/loaded mile	
÷	37.00	head/load	
=	$80.41	/feeder	
Other Costs (US)	$17.00	/feeder	
Total =	**$102.41**	**/feeder**	

2.07 Insurance

	$146,170	bldg & equip investment	
x	$0.45	/$100 capital	
÷	100.00	/$100	
÷	500	feeder cattle	
÷	2	turns/year	
=	$0.66	/feeder	
	$538,125	herd investment	
x	$0.00	/$100 capital	
÷	100.00	/$100	
÷	500	feeder cattle	
=	$0.00	/feeder	
	$49.00	additional coverage for liability	
÷	500	feeder cattle	
÷	2	turns/year	
=	$0.10	/feeder	
Total =	**$0.76**	**/feeder**	

2.08 Manure Removal

	$3,200	removal cost	
÷	500	feeder cattle	
=	**$6.40**	**/feeder**	

2.09 Barn & Office Supplies

	$1,000.00	total barn expenses	
÷	500	feeder cattle	
=	**$2.00**	**/feeder**	

2.10 Death Loss

	$853.50	feeder cattle cost	
+	$1,335.07	maximum value	
-	$102.41	marketing costs	
÷	2.00	average	
x	1.00	% mortality rate	
=	**$10.43**	**/feeder**	

2.11 Operating Interest

(Operating interest is charged on one half the subtotal operating costs)

	$853.50	feeder cost	
+	$240.79	½ of feed & other costs	
x	6.50	% operating interest	
x	171.00	days on feed	
÷	365.00	days/year	
=	**$33.32**	**/feeder**	

Capital Costs

Buildings, Corrals & Water System		
Windbreak fence	$7,350	
Pens	$4,540	
Grain Bin	$3,500	
Handling Facilities	$5,500	
Waterers	$5,000	
Gates	$1,280	
Bunk Feeders	$23,000	
Well & Pressure System	$6,000	
Landscaping	$15,000	
Total	**$71,170**	
Machinery & Equipment		
Tractor & Loader	$50,000	
Miscellaneous	$25,000	
Total	**$75,000**	
Total Investment	**$146,170**	

B. Fixed Costs

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

3.01 Buildings

	$71,170	original cost	
-	$7,117	salvage value	
÷	20.00	years useful life	
÷	500	feeder cattle	
÷	2	turns/year	
=	**$3.20**	**/feeder**	

3.02 Machinery & Equipment

	$75,000	original cost	
-	$15,000	salvage value	
÷	10.00	years useful life	
÷	500	feeder cattle	
÷	2	turns/year	
=	**$6.00**	**/feeder**	

4. Investment **Original Cost + Salvage Value x Investment Rate**
2

4.01 Buildings

	$71,170	original cost	
+	$7,117	salvage value	
÷	2.00	average	
x	4.00	% investment rate	
÷	500	feeder cattle	
÷	2	turns/year	
=	**$1.57**	**/feeder**	

4.02 Machinery & Equipment

	$75,000	original cost	
+	$15,000	salvage value	
÷	2.00	average	
x	4.00	% investment rate	
÷	500	feeder cattle	
÷	2	turns/year	
=	**$1.80**	**/feeder**	

C. Labour

	1.25	hours/feeder	
x	$11.00	/hour	
=	**$13.75**	**/feeder**	

Breakeven Calculations

				Your Cost
Cost per lb of gain sold				
Feed Costs		$345.63	feed cost	
	÷	527.50	weight gain	
	=	**$0.66**	**/lb gain sold**	
Operating Costs		$1,378.82	operating costs	
	-	$833.00	feeder cost	
	÷	527.50	weight gain	
	=	**$1.03**	**/lb gain sold**	
Total Operating		$1,391.39	operating & fixed costs	
& Fixed Costs	-	$833.00	feeder cost	
	÷	527.50	weight gain	
	=	**$1.06**	**/lb gain sold**	
Total Costs		$1,405.14	total costs	
	-	$833.00	feeder cost	
	÷	527.50	weight gain	
	=	**$1.08**	**/lb gain sold**	
Breakeven selling price				
Operating Costs		$1,378.82	operating costs	
	÷	1,377.50	lbs shrunk weight	
	=	**$1.00**	**/lb**	
Total Operating		$1,391.39	operating & fixed costs	
& Fixed Costs	÷	1,377.50	lbs shrunk weight	
	=	**$1.01**	**/lb**	
Total Costs		$1,405.14	total costs	
	÷	1,377.50	lbs shrunk weight	
	=	**$1.02**	**/lb**	
Breakeven purchase price				
Operating Costs		1,378.00	lbs shrunk weight	
	x	$91.00	$/cwt selling price	
	=	$1,253.98	income	
	-	$545.82	operating less feeder cost	
	÷	850.00	lbs purchase weight	
	=	**$0.83**	**/lb**	

Operating & fixed cocsts	1,378.00	lbs shrunk weight	
	x	$91.00	$/cwt selling price	
	=	$1,253.98	income	
	-	$558.39	op & fixed less feeder cost	
	÷	850.00	lbs purchase weight	
	=	**$0.82**	**/lb**	

Total costs	1,378.00	lbs shrunk weight	
	x	$91.00	$/cwt selling price	
	=	$1,253.98	income	
	-	$572.14	total less feeder cost	
	÷	850.00	lbs purchase weight	
	=	**$0.80**	**/lb**	

For more information contact your local MAFRI Office.

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Short Keep Feedlot Facilities