Guidelines For Estimating

Organic Backgrounding Costs

For Weight Range of 575 - 900 lbs
Based on 150 Head

Date: **January, 2009**

The following is an estimate of the costs of production associated with organic backgrounding feeder calves. The purpose of this budget is to assist Manitoba livestock producers to calculate their own costs and take into consideration the factors that should be included when budgeting to determine breakeven prices.

For the purposes of this budge, backgrounding refers to the feeding and managing of retained organic calves of the same operation from weaning until they are put onto a finishing ration. In general calves fed from weaning to 800-900 pounds are referred to as background feeders. An example of a typical backgrounding operation would be, feed 575 pound steers to gain 1.5-2.5 pounds per day for approximately 100-250 days to produce 800-900 pound backgrounded feeders.

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.

Overview of the Organic Livestock Industry in Manitoba

The organic farming sector has seen growth in recent years in response to increased consumer demand for organic food products.

Producers have experienced price premiums above conventionally produced livestock, which compensates for the higher input costs related to organic feed.

One of the basic requirements of the organic production system is that 'prohibited substances such as synthetic fertilizers and pesticides must not have been used for at least 36 months before the harvest of any crop'.

To transition livestock to certified organic, animals must be fed an organic ration for a minimum of the third trimester before calving. An individual beef animal must be managed according to the organic standards beginning no later than the start of the last third gestation period (of the dam) (CAN/CGSB-32.310-2006, 6.2.2). The individual cattle in the original conventional herd will never receive organic status, and they cannot be sold for slaughter as organic, nor can their meat be sold or represented as organic.However, they can receive the status of "Organic Breeding Stock", which designates that they are managed organically and that their offspring will be eligible for full "Organic" status (CAN/CGSB-32.310-2006, 6.2).

This budget shows transfer of calves from an organic cow calf operation rather than being purchased at the market.

Certified organic livestock must be certified to government-regulated standards on an annual basis by a certification agency. Land must be certified because livestock must have access to pastures, and the pastures must be certified organic (CAN/CGSB-32.310-2006 6.1.3).

Manure from organic cattle must be composted for a period of 6-12 months prior to being spread on organic land, though this requirement may vary by certifying agency. Manure from conventional cattle must be composted for a period of 24-36 months prior to being spread on organic land, though this requirement may vary by certifying agency.

For more information on all aspects of the organic industry, check out the Organic Agriculture page on the MAFRI website at :
http://www.gov.mb.ca/agriculture/organic

Organic Backgrounding Cattle Production Cost Summary, January, 2009

A. Operating Costs	Conventional	Organic	Your Cost
1. Feed Costs			
1.01 Ground Barley	$53.69	$97.50	
1.02 Barley Silage	$71.00	$85.68	
1.03 Hay	$2.06	$2.44	
1.04 Supplement	$16.80	$18.61	
Total Feed Costs	**$143.55**	**$204.23**	
2. Other Operating Costs			
2.01 Feeder Cost	$751.81	$835.19	
2.02 Straw	$5.20	$5.76	
2.03 Veterinary Medicine & Supplies	$26.70	$11.13	
2.04 Annual Fuel & Repair Costs	$6.00	$6.00	
2.05 Utilities	$3.80	$3.80	
2.06 Feeder Selling Cost	$34.00	$20.50	
2.07 Insurance	$1.59	$1.59	
2.08 Manure Removal	$6.40	$6.40	
2.09 Barn & Office Supplies	$3.33	$3.33	
2.10 Death Loss	$17.00	$17.84	
Subtotal Operating Costs	$999.38	$1,115.77	
2.11 Operating Interest	$20.27	$24.59	
Total Operating Costs	**$1,019.65**	**$1,140.36**	
B. Fixed Costs			
3. Depreciation			
3.01 Buildings	$5.63	$5.63	
3.02 Machinery & Equipment	$12.48	$12.48	
4. Investment			
4.01 Buildings	$2.75	$2.75	
4.02 Machinery & Equipment	$3.74	$3.74	
Total Fixed Costs	**$24.60**	**$24.60**	
Total Operating and Fixed Costs	**$1,044.25**	**$1,164.96**	
C. Labour	$22.00	$22.00	
Total Cost of Production	**$1,066.25**	**$1,186.96**	
Cost per lb of gain sold	**$/cwt**	**$/cwt**	
Feed Costs	$52.97	$75.36	
Operating Costs	$98.83	$112.61	
Operating Costs & Labour	$106.95	$120.73	
Operating & Fixed Costs	$107.91	$121.69	
Total Costs	$116.03	$129.80	
Breakeven Selling Price			
Operating Costs	$120.53	$134.79	
Operating Costs & Labour	$123.13	$137.39	
Operating & Fixed Costs	$123.43	$137.70	
Total Costs	$126.03	$140.30	

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.

Conventional Assumptions

1. Average daily gain (ADG) was assumed to be 2.5 lbs/day.
2. It was assumed the feeder steer weighed in at 575 lbs. shrunk weight, and was raised to 900 lbs (846 lbs after 6 % shrink).
3. Days on feed was 130.
4. Investment in facilities and equipment was assumed to handle 150 head.

Backgrounding Cattle Production Cost Worksheet

A. Operating Costs			Your Cost
1. Feed Costs			
1.01 Ground Barley			
	130.00	days on ground barley	
x	6.50	lbs/feeder/day	
÷	48.00	lbs/bu	
x	$3.05	/bu	
=	**$53.69**	**/feeder**	
1.02 Barley Silage			
	130.00	days on silage	
x	34.00	lbs/feeder/day	
÷	2000.00	lbs/ton	
x	$32.00	/ton	
=	**$71.00**	**/feeder**	
1.03 Hay			
	15.00	days on hay	
x	5.00	lbs/feeder/day	
÷	2000.00	lbs/ton	
x	$55.00	/ton	
=	**$2.06**	**/feeder**	
1.04 Supplement(Salt,Minerals,Vitamins, Ionophore)			
	130.00	days on supplement	
x	1.00	lbs/feeder/day	
÷	2205.00	lbs/tonne	
x	$285.00	/tonne	
=	**$16.80**	**/feeder**	

2. Other Operating Costs

2.01 Feeder Cattle Cost

Commission	$0.00	/feeder	
Insurance	$0.00	/feeder	
Trucking-in	$0.00	/cwt	
x	575	lbs/feeder	
÷	100	lbs/cwt	
=	$0.00	/feeder	
Feeder	575	lbs/feeder	
x	$130.75	/cwt	
÷	100	lbs/cwt	
=	$751.81	/feeder	
Total =	**$751.81**	**/feeder**	

2.02 Straw

	4.00	lbs/feeder/day	
x	130.00	days on feed	
x	$20.00	/ton	
=	**$5.20**	**/feeder**	

2.03 Veterinary Medicine & Supplies

Cattle Medication

	$4.80	IBR,BVD,PI3,BRSV,Pastearella	
+	$0.65	Vitamin A-D	
+	$2.11	External & Internal Parasites	
+	$2.30	Blackleg & Haemophilus	
+	$1.71	Growth Implants	
±	$4.00	Antibiotics	
=	$15.57	/feeder	

Herd Health Program

Professional Services

	$135.00	/hour charge	
x	10.00	hours	
÷	150.00	feeder cattle	
=	$9.00	/feeder	

Transportation Costs

	$1.00	/km charge	
x	80	kilometres	
x	4	visits	
÷	150	feeder cattle	
=	$2.13	/feeder	

Total =	**$26.70**	**/feeder**	

2.04 Annual Fuel & Repair Costs

	$300.00	repairs	
+	$600.00	fuel costs	
÷	150	feeder cattle	
=	**$6.00**	**/feeder**	

2.05 Utilities

	$570.00	cost/year	
÷	150	feeder cattle	
=	**$3.80**	**/feeder**	

2.06 Feeder Selling Cost

Trucking

	900	lbs/feeder	
÷	100	lbs/cwt	
x	$1.50	trucking cost/cwt	
=	$13.50	/feeder	

MCEC Fee, MCPA levy, selling commission

	$2.00	MCEC Fee	
+	$3.00	MCPA Levy	
+	$15.50	commission	
=	$20.50	/feeder	

Total =	**$34.00**	**/feeder**	

2.07 Insurance

	$42,150	building & equipment investment	
x	$0.45	/$100 capital	
÷	100	/$100	
÷	150	feeder cattle	
=	$1.26	/feeder	
	$121,186	herd investment	
x	$0.00	/$100 capital	
÷	100	/$100	
÷	150	feeder cattle	
=	$0.00	/feeder	
	$49.00	additional coverage for liability	
÷	150	feeder cattle	
=	$0.33	/feeder	

Total =	**$1.59**	**/feeder**	

2.08 Manure Removal

	$960	annual removal cost	
÷	150	feeder cattle	
=	**$6.40**	**/feeder**	

2.09 Barn & Office Supplies

	$500.00	total barn expenses	
÷	150	feeder cattle	
=	**$3.33**	**/feeder**	

2.10 Death Loss

	$751.81	feeder cattle cost	
+	$982.38	maximum value	
-	$34.00	selling costs	
÷	2.00	average	
x	2.00	% mortality rate	
=	**$17.00**	**/feeder**	

2.11 Operating Interest

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

	$751.81	feeder cost	
+	$123.79	½ of feed & other costs	
x	6.50	% operating interest	
x	130.00	days on feed	
÷	365.00	days /year	
=	**$20.27**	**/feeder**	

Capital Costs

Buildings,Corrals & Water System		
Windbreak fence	$2,700	
Pens	$1,600	
Handling Facilities	$1,800	
Waterers	$1,650	
Bunk Feeders	$6,000	
Well & Pressure System	$1,400	
Grain Bin	$1,200	
Landscaping	$2,400	
Total	**$18,750**	
Machinery & Equipment		
Tractor & Loader	$10,000	
Miscellaneous	$13,400	
Total	**$23,400**	
Total Investment	**$42,150**	

B. Fixed Costs

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

3.01 Buildings

	$18,750	original cost	
-	$1,875	salvage value	
÷	20.00	years useful life	
÷	150.00	feeder cattle	
=	**$5.63**	**/feeder**	

3.02 Machinery & Equipment

	$23,400	original cost	
-	$4,680	salvage value	
÷	10.00	years useful life	
÷	150.00	feeder cattle	
=	**$12.48**	**/feeder**	

4. Investment $\frac{\text{Original Cost + Salvage Value}}{2}$ **x Investment Rate**

4.01 Buildings

	$18,750	original cost	
+	$1,875	salvage value	
÷	2.00	average	
x	4.00	% investment rate	
÷	150.00	feeder cattle	
=	**$2.75**	**/feeder**	

4.02 Machinery & Equipment

	$23,400	original cost	
+	$4,680	salvage value	
÷	2.00	average	
x	4.00	% investment rate	
÷	150.00	feeder cattle	
=	**$3.74**	**/feeder**	

C. Labour

	2.0	hours/feeder/year	
÷	$11.00	/hour	
=	**$22.00**	**/feeder**	

Organic Assumptions

1. Average daily gain (ADG) was assumed to be 2.25 lbs/day.
2. It was assumed the feeder steer weighed in at 575 lbs. shrunk weight, and was raised to 900 lbs (846 lbs after 6 % shrink).
3. Days on feed was 144.
4. Investment in facilities and equipment was assumed to handle 150 head.

Backgrounding Cattle Production Cost Worksheet

A. Operating Costs			Your Cost
1. Feed Costs			
1.01 Ground Barley			
	144.00	days on ground barley	
x	6.50	lbs/feeder/day	
÷	48.00	lbs/bu	
x	$5.00	/bu	
=	**$97.50**	**/feeder**	
1.02 Barley Silage			
	144.00	days on silage	
x	34.00	lbs/feeder/day	
÷	2000.00	lbs/ton	
x	$35.00	/ton	
=	**$85.68**	**/feeder**	
1.03 Hay			
	15.00	days on hay	
x	5.00	lbs/feeder/day	
÷	2000.00	lbs/ton	
x	$65.00	/ton	
=	**$2.44**	**/feeder**	
1.04 Supplement(Salt,Minerals,Vitamins, Ionophore)			
	144.00	days on supplement	
x	1.00	lbs/feeder/day	
÷	2205.00	lbs/tonne	
x	$285.00	/tonne	
=	**$18.61**	**/feeder**	

2. Other Operating Costs

2.01 Feeder Cattle Cost

Commission	$0.00	/feeder	
Insurance	$0.00	/feeder	
Trucking-in	$0.00	/cwt	
x	575	lbs/feeder	
÷	100	lbs/cwt	
=	$0.00	/feeder	
Feeder	575	lbs/feeder	
x	$145.25	/cwt	
÷	100	lbs/cwt	
=	$835.19	/feeder	
Total =	**$835.19**	**/feeder**	

2.02 Straw

	4.00	lbs/feeder/day	
x	144.00	days on feed	
x	$20.00	/ton	
=	**$5.76**	**/feeder**	

2.03 Veterinary Medicine & Supplies

Cattle Medication

	$0.00	IBR,BVD,PI3,BRSV,Pastearella	
+	$0.00	Vitamin A-D	
+	$0.00	External & Internal Parasites	
+	$0.00	Blackleg & Haemophilus	
+	$0.00	Growth Implants	
±	$0.00	Antibiotics	
=	$0.00	/feeder	

Herd Health Program

Professional Services

	$135.00	/hour charge	
x	10.00	hours	
÷	150.00	feeder cattle	
=	$9.00	/feeder	

Transportation Costs

	$1.00	/km charge	
x	80	kilometres	
x	4	visits	
÷	150	feeder cattle	
=	$2.13	/feeder	

Total =	**$11.13**	**/feeder**	

2.04 Annual Fuel & Repair Costs

	$300.00	repairs	
+	$600.00	fuel costs	
÷	150	feeder cattle	
=	**$6.00**	**/feeder**	

2.05 Utilities

	$570.00	cost/year	
÷	150	feeder cattle	
=	**$3.80**	**/feeder**	

2.06 Feeder Selling Cost

Trucking

	900	lbs/feeder	
÷	100	lbs/cwt	
x	$0.00	trucking cost/cwt	
=	$0.00	/feeder	

MCEC Fee, MCPA levy, selling commission

	$2.00	MCEC Fee	
+	$3.00	MCPA Levy	
+	$15.50	commission	
=	$20.50	/feeder	

Total =	**$20.50**	**/feeder**	

2.07 Insurance

	$42,150	building & equipment investment	
x	$0.45	/$100 capital	
÷	100	/$100	
÷	150	feeder cattle	
=	$1.26	/feeder	
	$121,186	herd investment	
x	$0.00	/$100 capital	
÷	100	/$100	
÷	150	feeder cattle	
=	$0.00	/feeder	
	$49.00	additional coverage for liability	
÷	150	feeder cattle	
=	$0.33	/feeder	

Total =	**$1.59**	**/feeder**	

2.08 Manure Removal

	$960	annual removal cost	
÷	150	feeder cattle	
=	**$6.40**	**/feeder**	

2.09 Barn & Office Supplies

	$500.00	total barn expenses	
÷	150	feeder cattle	
=	**$3.33**	**/feeder**	

2.10 Death Loss

	$835.19	feeder cattle cost	
+	$982.38	maximum value	
-	$34.00	selling costs	
÷	2.00	average	
x	2.00	% mortality rate	
=	**$17.84**	**/feeder**	

2.11 Operating Interest

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

	$835.19	feeder cost	
+	$123.79	½ of feed & other costs	
x	6.50	% operating interest	
x	144.00	days on feed	
÷	365.00	days /year	
=	**$24.59**	**/feeder**	

Capital Costs

Buildings,Corrals & Water System		
Windbreak fence	$2,700	
Pens	$1,600	
Handling Facilities	$1,800	
Waterers	$1,650	
Bunk Feeders	$6,000	
Well & Pressure System	$1,400	
Grain Bin	$1,200	
Landscaping	$2,400	
Total	**$18,750**	
Machinery & Equipment		
Tractor & Loader	$10,000	
Miscellaneous	$13,400	
Total	**$23,400**	
Total Investment	**$42,150**	

B. Fixed Costs

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

3.01 Buildings

	$18,750	original cost	
-	$1,875	salvage value	
÷	20.00	years useful life	
÷	150.00	feeder cattle	
=	**$5.63**	**/feeder**	

3.02 Machinery & Equipment

	$23,400	original cost	
-	$4,680	salvage value	
÷	10.00	years useful life	
÷	150.00	feeder cattle	
=	**$12.48**	**/feeder**	

4. Investment $\frac{\text{Original Cost + Salvage Value}}{2}$ **x Investment Rate**

4.01 Buildings

	$18,750	original cost	_____
+	$1,875	salvage value	_____
÷	2.00	average	_____
x	4.00	% investment rate	_____
÷	150.00	feeder cattle	_____
=	**$2.75**	**/feeder**	_____

4.02 Machinery & Equipment

	$23,400	original cost	_____
+	$4,680	salvage value	_____
÷	2.00	average	_____
x	4.00	% investment rate	_____
÷	150.00	feeder cattle	_____
=	**$3.74**	**/feeder**	_____

C. Labour

	2.0	hours/feeder/year	_____
÷	$11.00	/hour	_____
=	**$22.00**	**/feeder**	_____

Conventional Breakeven Calculations

Cost per lb of gain sold (shrunk weight)

Feed Costs		$143.55	feed cost	
	÷	271	lbs gained weight	
	=	**$0.53**	**/lb (gain sold)**	
Operating Costs		$1,019.65	operating costs	
	-	$751.81	feeder cost	
	÷	271	lbs gained weight	
	=	**$0.99**	**/lb (gain sold)**	
Operating & Labour Costs		$1,041.65	operating costs	
	-	$751.81	feeder cost	
	÷	271	lbs gained weight	
	=	**$1.07**	**/lb (gain sold)**	
Operating & Fixed		$1,044.25	oper. & fixed costs	
	-	$751.81	feeder cost	
	÷	271	lbs gained weight	
	=	**$1.08**	**/lb (gain sold)**	
Total Costs		$1,066.25	total costs	
	-	$751.81	feeder cost	
	÷	271	lbs gained weight	
	=	**$1.16**	**/lb (gain sold)**	

Breakeven selling price (shrunk weight)

Operating Costs		$1,019.65	operating costs	
	÷	846	lbs shrunk weight	
	=	**$1.21**	**/lb**	
Operating & Labour Costs		$1,041.65	operating & labour	
	÷	846	lbs shrunk weight	
	=	**$1.23**	**/lb**	
Operating & Fixed		$1,044.25	oper.& fixed costs	
	÷	846	lbs shrunk weight	
	=	**$1.23**	**/lb**	
Total Costs		$1,066.25	total costs	
	÷	846	lbs shrunk weight	
	=	**$1.26**	**/lb**	

Organic Breakeven Calculations

Cost per lb of gain sold (shrunk weight)

Feed Costs		$204.23	feed cost	
	÷	271	lbs gained weight	
	=	**$0.75**	**/lb (gain sold)**	
Operating Costs		$1,140.36	operating costs	
	-	$835.19	feeder cost	
	÷	271	lbs gained weight	
	=	**$1.13**	**/lb (gain sold)**	
Operating & Labour Costs		$1,162.36	oper & labour costs	
	-	$835.19	feeder cost	
	÷	271	lbs gained weight	
	=	**$1.21**	**/lb (gain sold)**	
Operating & Fixed		$1,164.96	oper. & fixed costs	
	-	$835.19	feeder cost	
	÷	271	lbs gained weight	
	=	**$1.22**	**/lb (gain sold)**	
Total Costs		$1,186.96	total costs	
	-	$835.19	feeder cost	
	÷	271	lbs gained weight	
	=	**$1.30**	**/lb (gain sold)**	

Breakeven selling price (shrunk weight)

Operating Costs		$1,140.36	operating costs	
	÷	846	lbs shrunk weight	
	=	**$1.35**	**/lb**	
Operating & Labour Costs		$1,162.36	operating & labour	
	÷	846	lbs shrunk weight	
	=	**$1.37**	**/lb**	
Operating & Fixed		$1,164.96	oper.& fixed costs	
	÷	846	lbs shrunk weight	
	=	**$1.38**	**/lb**	
Total Costs		$1,186.96	total costs	
	÷	846	lbs shrunk weight	
	=	**$1.40**	**/lb**	

For more information contact your local MAFRI Office.

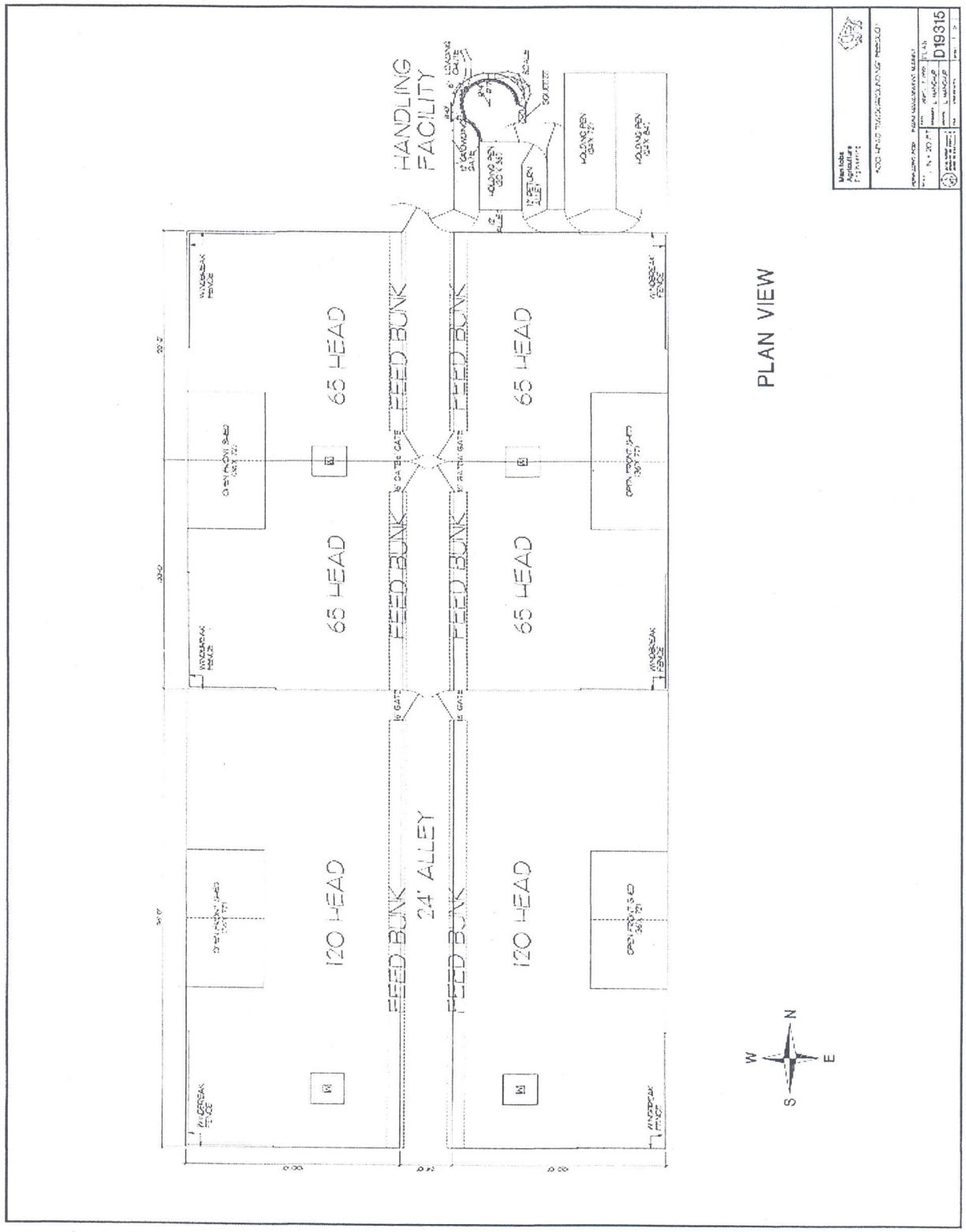
Prepared by:
Peter Blawat
Policy Economist

Marc Boulanger
Business Development Specialist

Dena Hunter
Business Development Specialist

Robin McRae
Food Development

Backgrounding Feedlot Facilities



Prepared by Manitoba Agriculture, Food and Rural Initiatives.