

Guidelines For Estimating  
**Swine Farrow-Finish Costs**  
Based On 500 Sows and 10,566 Pigs Sold  
Based on all feed being purchased

**Date: May 2010**

This publication is intended to provide a format and a set of guidelines for determining the cost of production for a swine enterprise. Adjustments will be necessary when applying these figures to your enterprise.

The assumptions on which the costs are based are outlined in the supporting pages. These assumptions were arrived at using the breeding stock, management practices, and facilities seen in modern, well managed swine operations of comparable size in Manitoba. Productivity and performance assumptions are based on information collected by department specialists, feed companies and other organizations. Where individual herd productivity and performance levels differ from those listed adjustments will be required.

Accurate, up to date, production and financial records are essential for the effective application of these guidelines to an individual operation. Without such information accurate cost of production projections cannot be determined.

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 a period of time or comparing the plan with the actual results 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 this 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 office.**

## Farrow-Finish Pig Cost of Production

The following farrow finish budget is **based on the assumption all rations are purchased**. The budget assumes a land investment cost based on 480 acres, which would be required for this size operation, with 460 acres rented out at \$35 per acre.

The budget includes an assumption that 1.5% of the market pigs are sold as lightweight pigs. It is assumed that when the lightweight pigs are sold, they will have a salvage value. Therefore, total marketings are reduced by only 1% to compensate for the lightweight pigs.

The budget includes an assumption that this particular operation is "all-in, all-out" by room. Space allocations for finishing pigs are in accordance with the Recommended Code of Practice for the Care and Handling of Farm Animals: Pigs.

The rations illustrated in this budget are examples only. Individual farm conditions should be taken into account when formulating the diets. Producers need to know the feed intakes of their animals. Please consult with a nutritionist for diet information and suggestions.

The Manitoba pork production industry profile is changing and this budget was specifically designed to address the need of producers who may want to analyze the cost of production for a new farrow to finish operation. Several companies are offering contracts with varying levels of guarantees. Producers need to accurately calculate their costs before they can properly make a decision.

## 500 Sow Farrow-Finish Cost of Production Summary

May 2010

	<u>\$/Pig Sold</u>	<u>\$/Sow /Year</u>	<u>Total Cost</u>	<u>Your Cost</u>
<b>A. Operating Costs</b>				
<b>1. Feed Costs:</b>				
1.01 Sow Lactation	\$3.97	\$83.90	\$41,952	_____
1.02 Sow Gestation	\$11.46	\$242.12	\$121,061	_____
1.03 Boar Ration	\$0.09	\$1.81	\$907	_____
1.04 Pre Starter 1	\$0.88	\$18.63	\$9,317	_____
1.05 Pre Starter 2	\$2.36	\$49.93	\$24,963	_____
1.06 Starter 1	\$5.87	\$124.09	\$62,043	_____
1.07 Starter 2	\$8.12	\$171.57	\$85,784	_____
1.08 Starter	\$6.47	\$136.72	\$68,362	_____
1.09 Grower	\$35.64	\$753.15	\$376,576	_____
1.10 Finisher	<u>\$17.30</u>	<u>\$365.50</u>	<u>\$182,751</u>	_____
<b>Total Feed Cost</b>	<b>\$92.15</b>	<b>\$1,947.43</b>	<b>\$973,716</b>	_____
<b>2. Other Operating Costs:</b>				
2.01 Veterinary Medicine & Supplies	\$3.12	\$66.00	\$33,000	_____
2.02 Maintenance & Repairs	\$1.66	\$35.10	\$17,548	_____
2.03 Hydro & Propane	\$5.91	\$124.94	\$62,470	_____
2.04 Insurance	\$3.32	\$70.26	\$35,130	_____
2.05 Manure Costs	\$3.67	\$77.47	\$38,734	_____
2.06 Office Supplies	\$0.09	\$2.00	\$1,000	_____
2.07 Marketing & Transport.	\$5.11	\$107.99	\$53,993	_____
2.08 Artificial Insemination Costs	\$1.88	\$39.68	\$19,838	_____
2.09 Herd Replacement	\$3.07	\$64.89	\$32,443	_____
2.10 Property Tax	<u>\$0.76</u>	<u>\$16.00</u>	<u>\$8,000</u>	_____
Subtotal Operating Costs	\$120.75	\$2,551.74	\$1,275,871	_____
2.11 Interest on Operating Costs	<u>\$2.02</u>	<u>\$42.66</u>	<u>\$21,329</u>	_____
<b>Total Operating Costs</b>	<b>\$122.77</b>	<b>\$2,594.40</b>	<b>\$1,297,200</b>	_____
<b>B. Fixed Costs</b>				
<b>3. Depreciation:</b>				
3.01 Buildings & Manure Storage	\$5.68	\$119.96	\$59,978	_____
3.02 Equipment	<u>\$10.98</u>	<u>\$232.14</u>	<u>\$116,068</u>	_____
<b>Total Depreciation Cost</b>	<b>\$16.66</b>	<b>\$352.09</b>	<b>\$176,046</b>	_____
<b>4. Investment:</b>				
4.01 Land cost	\$0.13	\$2.80	\$1,400	_____
4.02 Buildings & Manure Storage	\$3.63	\$76.69	\$38,343	_____
4.03 Equipment	\$2.35	\$49.65	\$24,826	_____
4.04 Breeding Herd	<u>\$0.50</u>	<u>\$10.56</u>	<u>\$5,282</u>	_____
<b>Total Investment Cost</b>	<b>\$6.61</b>	<b>\$139.70</b>	<b>\$69,850</b>	_____
<b>Total Fixed Costs</b>	<b>\$23.27</b>	<b>\$491.79</b>	<b>\$245,896</b>	_____
<b>C. Labour</b>				
120 hours/week farrow wean	\$10.63	\$224.64	\$112,320	_____
90 hours/week grower finish	<u>\$7.53</u>	<u>\$159.12</u>	<u>\$79,560</u>	_____
<b>Total Labour Cost</b>	<b>\$18.16</b>	<b>\$383.76</b>	<b>\$191,880</b>	_____
<b>Total Cost of Production</b>	<b>\$164.20</b>	<b>\$3,469.95</b>	<b>\$1,734,976</b>	_____
<b>Break-Even Price (carcass) <sup>1</sup></b>	<b><u>\$/100 kg</u></b>	<b><u>\$/CWT</u></b>		
Operating Cost	\$119.42	\$54.17		
Operating & Labour Cost	\$137.09	\$62.18		
Operating, Labour & Fixed Cost	\$159.73	\$72.45		

<sup>1</sup> FOOTNOTE: Break-even Price = Cost per Hog Sold ÷ (Slaughter Weight(-shrink) X Dressing Percentage X Index)

**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.

## Farrow - Finish Pig Production Costs

- 1 This input table outlines the cost of production for a farrow finish operation.
- 2 Buildings and equipment are valued at new cost.
- 3 Purchased feed is used for creep and starter all other feed is home mixed.
- 4 Manure haulage is contracted out.
- 5 Gilts are purchased for herd replacement.
- 6 No weaner pigs are sold.

## Farrow - Wean Pig Production Assumptions

### Indicators of Productivity

Sows	<b>500</b>
Boars	<b>3</b>
Litters/Sow/Year	<b>2.30</b>
Average Weaning Age (days)	<b>20</b>
Average Born Alive per Litter	<b>11.50</b>
Percent Pre-Weaning Mortality	<b>12.5</b>
Percent Post-Weaning Mortality	<b>3.0</b>

<b>Herd Profile</b>	<b>Total</b>	<b>/Sow</b>	<b>/Litter</b>	<b>%Mortality</b>
Sows	500			
Boars	3			
Litters	1,150	2.30		
Pigs Born Alive	13,225	26.45	11.50	
Pigs Died, Pre-Weaning	1,653	3.31	1.44	12.5
Pigs Weaned	11,572	23.14	10.06	
Pigs Died, Post-Weaning	347	0.69	0.30	3.0
Weaner Pigs Transferred	11,225	22.45	9.76	

### Feed Requirements and Costs

		<b>Purchased</b>	<b>Home-Mixed</b>
Dry Sow Ration	<b>2.8</b> kg/day	<b>\$276.00</b>	\$0.00 /tonne
Nursing Sow Ration	<b>6.4</b> kg/day	<b>\$285.00</b>	\$0.00 /tonne
Boar Ration	<b>3.0</b> kg/day	<b>\$276.00</b>	\$0.00 /tonne
Per Starter 1 (Ration 1)	<b>0.5</b> kg	<b>\$1,409.00</b>	\$0.00 /tonne
Pre Starter 2 (Ration 2)	<b>2.1</b> kg	<b>\$1,059.00</b>	\$0.00 /tonne
Starter 1 (Ration 3)	<b>9.4</b> kg	<b>\$588.00</b>	\$0.00 /tonne
Starter 2 (Ration 4)	<b>19.3</b> kg	<b>\$397.00</b>	\$0.00 /tonne

### Weaner Pig Efficiency

	<b>Ration 1</b>	<b>Ration 2</b>	<b>Ration 3</b>	<b>Ration 4</b>	<b>Total</b>
Days Post-Weaning (nursery)	<b>3.0</b>	<b>7.0</b>	<b>18.0</b>	<b>22.0</b>	50
Target Starting Weight (kg)	<b>6.0</b>	<b>6.5</b>	<b>8.3</b>	<b>15.0</b>	6.0
Target Ending Weight (kg)	<b>6.5</b>	<b>8.3</b>	<b>15.0</b>	<b>26.8</b>	26.8
Feed Conversion Ratio	1.00	1.20	1.40	1.64	1.51
Average Daily Gain (kg)	0.17	0.25	0.37	0.53	0.45

### Labour

Total Hours per 7-day week	12.48	<b>120.0</b>	hours/week (include manager)	6,240
Hourly Wage (including hired manager)		<b>\$18.00</b>	/hour (weighted)	

### Grower-Finisher Pig Production Assumptions

Livestock values are based on

a Market Price for Pork of: **\$138.00** /100 kg **110** Market Index  
 or: \$62.60 /cwt **80** % Dressing  
 Premium: **\$2.00** /head

<b>Indicators of Productivity</b>	<b>Starter</b>	<b>Grower</b>	<b>Finish</b>	<b>Total</b>
No. of Pigs (Beginning)	11,225	11,057	10,891	--
Average Beginning Weight (kg)	26.8	40.0	95.0	--
Average Ending Weight (kg)	<b>40.0</b>	<b>95.0</b>	<b>118.0</b>	--
Percent Mortality	<b>1.50</b>	<b>1.50</b>	<b>1.50</b>	4.4
Days on Feed	<b>23</b>	<b>65</b>	<b>28</b>	116.00
Feed Conversion Ratio <sup>1</sup>	<b>1.90</b>	<b>2.70</b>	<b>3.20</b>	<b>2.71</b>
No. of Pigs (Ending)	11,057	10,891	10,727	--
Weight Gain/Pig (kg)	13.3	55.0	23.0	91.3
Feed Disappearance/Pig (kg)	25.2	148.5	73.6	247.3
Average Daily Gain (kg)	0.576	0.846	0.821	0.787
Average No. Pigs in Barn <sup>2</sup>	3,541	3,488	3,435	3,488

<sup>1</sup> FOOTNOTE: The Feed Conversion Ratio (FCR) in the 'Total' column is a weighted average of the other feed conversion ratios. Also note that an accurate feed conversion ratio for the grower-finisher enterprise is calculated by dividing 'Total Feed used per Year' by 'Total Gain per Year'; where 'Total Gain per Year' equals 'Total Hogs Sold' times 'Gain per Hog'. When calculated in this way, the feed conversion ratio includes feed lost through wastage and weight gain lost through death of pigs.

<sup>2</sup> FOOTNOTE: Assume that "Avg. No. of Pigs in Barn" equals "Pig Places".

<b>Productivity Profile</b>	<b>Total</b>	
Pigs transferred	11,225.00	
Pigs Died	498.00	4.43 % mortality
Pigs available for marketing	10,727.00	
Less light weight pig adjustment	160.91	<b>1.50</b> % light weight adjustment
Pigs Sold at full market value	10,566.10	21.13 sold/sow
Total Days to Market	187.75	
Turnover finish	3.2	
Turnover wean to finish	2.2	

#### Feed Requirements and Costs

	<b>FCR*</b>	<b>kg/pig</b>	<b>Ration Cost</b>	
			<b>Purchased</b>	<b>Home-Mixed</b>
Starter	1.90	25.2	<b>\$257.00</b>	\$0.00 /tonne
Grower	2.70	148.5	<b>\$240.00</b>	\$0.00 /tonne
Finish	3.20	73.6	<b>\$235.00</b>	\$0.00 /tonne

\* FCR = Feed Conversion Ratio (Feed:Gain)

#### Labour

Total Hours per year	0.36	<b>90</b> hours/week	4,680 hours/year
Wage (incl. benefits @15%)		<b>\$17.00</b> /hour (weighted)	

## Capital Costs

3,742 pig places feeder barn		<u>\$/Sq.Ft.</u>	<u>Total</u>	<u>/Sow</u>
<b>Buildings</b>				
Gestation	13,500 sq.ft.	<b>\$23.10</b>	\$311,850	\$623.70
Farrowing/Nursing	17,250 sq.ft.	<b>\$31.50</b>	\$543,375	\$1,086.75
Feeder Barn	34,423 sq.ft.	<b>\$29.40</b>	\$1,012,046	\$2,024.09
Office & Loading	<b>300</b> sq.ft.	<b>\$28.88</b>	\$8,664	\$17.33
Standby Generator			<b>\$25,000</b>	\$50.00
Feed Mill (building only)			<b>\$0</b>	<u>\$0.00</u>
<b>Total Building Cost</b>			<b>\$1,900,935</b>	<b>\$3,801.87</b>
<b>Equipment</b>				
Gestation		<b>\$18.90</b>	\$255,150	\$510.30
Farrowing/Nursing		<b>\$31.50</b>	\$543,375	\$1,086.75
Finishing Barn		<b>\$14.18</b>	\$488,123	\$976.25
Fire Alarm System			<b>\$3,000</b>	\$6.00
Feed Mill (equipment only).			<b>\$0</b>	<u>\$0.00</u>
<b>Total Equipment Cost</b>			<b>\$1,289,648</b>	<b>\$2,579.30</b>
<b>Total Buildings and Equipment Cost</b>			<b>\$3,190,583</b>	<b>\$6,381.17</b>
<b>Breeding Stock</b>				
Value of Replacement Sow	\$300 /sow		\$150,000	\$300.00
Value of Replacement Boar	\$300 /boar		<u>\$900</u>	<u>\$1.80</u>
<b>Total Breeding Stock Cost</b>			<b>\$150,900</b>	<b>\$301.80</b>
<b>Land Value</b>				
Land Investment	20 acres @	\$500 /acre	\$10,000	\$20.00
<b>Other Costs</b>				
Site Preparation			<b>\$30,000</b>	\$60.00
Manure Storage			<b>\$100,000</b>	<u>\$200.00</u>
<b>Total Other Costs</b>			<b>\$130,000</b>	<b>\$260.00</b>
<b>Total Capital Investment</b>			<b>\$3,451,483</b>	<b>\$6,902.97</b>

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<sup>1</sup> FOOTNOTE: The number of square feet allocated for buildings and equipment are approximations. Cost per sow for buildings and equipment will vary around the province.

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FOOTNOTE: 1 sq.ft. = 0.0929 sq.m; 1 sq.m.= 10.764 sq.ft.; 1 ft.= 0.3048 m

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## Feed Ingredient Costs

	<u>Price (\$/tonne)</u>	<u>Your Cost</u>
Wheat	<b>\$159</b>	_____
Barley	<b>\$135</b>	_____
Corn	<b>\$145</b>	_____
Soybean Meal	<b>\$340</b>	_____
Canola Meal	<b>\$178</b>	_____
Peas	<b>\$200</b>	_____
Sow Micro Premix	<b>\$4,000</b>	_____
Grower Micro Premix	<b>\$3,000</b>	_____
Canola Oil	<b>\$975</b>	_____
Whey Powder	<b>\$995</b>	_____
Fish Meal	<b>\$1,380</b>	_____
Plasma	<b>\$5,450</b>	_____
Limestone	<b>\$81</b>	_____
Dical (16% Ca-21% P)	<b>\$700</b>	_____
Salt - 96%	<b>\$85</b>	_____
Phytase	<b>\$7,175</b>	_____
L-Lysine HCL	<b>\$2,315</b>	_____
L-Threonine	<b>\$3,500</b>	_____
D L-Methionine	<b>\$5,500</b>	_____
Oats - Groats	<b>\$270</b>	_____
Processing Cost		_____
(Hydro, Repairs/Maintenance & Insurance	<b>\$5.00</b>	_____
Percent Weight loss due to processing	<b>1.25</b>	_____
Labour Cost	<b>\$7.00</b>	_____

**Ration Formulas**

	<b>Sow Gestation (kg)</b>	<b>Sow Lactation (kg)</b>	<b>Boar Ration (kg)</b>
Wheat	<b>259.00</b>	<b>568.70</b>	<b>233.64</b>
Barley	<b>539.00</b>	<b>200.00</b>	<b>539.00</b>
Corn	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
Soybean Meal	<b>0.00</b>	<b>196.00</b>	<b>0.00</b>
Canola Meal	<b>80.00</b>	<b>0.00</b>	<b>102.00</b>
Peas	<b>91.00</b>	<b>0.00</b>	<b>91.00</b>
Sow Micro Premix	<b>5.00</b>	<b>5.00</b>	<b>5.00</b>
Grower Micro Premix	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
Canola Oil	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
Whey Powder	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
Fish Meal	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
Plasma	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
Limestone	<b>10.00</b>	<b>12.00</b>	<b>12.00</b>
Dical (16% Ca-21% P)	<b>11.00</b>	<b>12.00</b>	<b>12.00</b>
Salt - 96%	<b>3.50</b>	<b>5.00</b>	<b>3.50</b>
Phytase	<b>0.50</b>	<b>0.50</b>	<b>0.50</b>
L-Lysine HCL	<b>1.00</b>	<b>0.80</b>	<b>1.36</b>
L-Threonine	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
D L-Methionine	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
Oats - Groats	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
<b>Total Must Equal 1000kg</b>	<b>1,000.00</b>	<b>1,000.00</b>	<b>1,000.00</b>

	<b>Pre Starter 1</b>	<b>Pre Starter 2</b>	<b>Starter 1</b>	<b>Starter 2</b>
	<b><u>(kg)</u></b>	<b><u>(kg)</u></b>	<b><u>(kg)</u></b>	<b><u>(kg)</u></b>
Wheat	106.00	134.50	400.00	407.60
Barley	0.00	0.00	0.00	65.00
Corn	0.00	0.00	223.00	250.00
Soybean Meal	120.00	130.00	204.50	227.00
Canola Meal	0.00	0.00	0.00	0.00
Peas	0.00	0.00	0.00	0.00
Sow Micro Premix	5.00	5.00	5.00	5.00
Grower Micro Premix	0.00	0.00	0.00	0.00
Canola Oil	27.00	19.00	11.30	0.00
Whey Powder	121.00	125.00	90.70	0.00
Fish Meal	61.00	75.00	45.50	25.00
Plasma	59.00	0.00	0.00	0.00
Limestone	12.50	12.50	7.00	7.00
Dical (16% Ca-21% P)	10.00	10.00	8.00	8.00
Salt - 96%	3.50	3.50	3.50	3.50
Phytase	0.00	0.00	0.50	0.50
L-Lysine HCL	0.50	0.50	1.00	1.40
L-Threonine	0.00	0.00	0.00	0.00
D L-Methionine	0.00	0.00	0.00	0.00
Oats - Groats	<u>474.50</u>	<u>485.00</u>	<u>0.00</u>	<u>0.00</u>
<b>Total Must Equal 1000kg</b>	<b>1000.00</b>	<b>1000.00</b>	<b>1000.00</b>	<b>1,000.00</b>

	<b>Starter Ration (kg)</b>	<b>Grower Ration (kg)</b>	<b>Finisher Ration (kg)</b>
Wheat	<b>532.56</b>	<b>372.39</b>	<b>220.04</b>
Barley	<b>183.30</b>	<b>268.60</b>	<b>408.35</b>
Corn	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
Soybean Meal	<b>158.80</b>	<b>45.37</b>	<b>0.00</b>
Canola Meal	<b>0.00</b>	<b>84.39</b>	<b>79.40</b>
Peas	<b>100.00</b>	<b>204.07</b>	<b>272.13</b>
Sow Micro Premix	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
Grower Micro Premix	<b>3.00</b>	<b>3.00</b>	<b>3.00</b>
Canola Oil	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
Whey Powder	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
Fish Meal	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
Plasma	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
Limestone	<b>12.21</b>	<b>11.71</b>	<b>10.38</b>
Dical (16% Ca-21% P)	<b>4.85</b>	<b>5.38</b>	<b>2.84</b>
Salt - 96%	<b>3.50</b>	<b>3.50</b>	<b>3.50</b>
Phytase	<b>0.20</b>	<b>0.20</b>	<b>0.20</b>
L-Lysine HCL	<b>1.36</b>	<b>1.36</b>	<b>0.00</b>
L-Threonine	<b>0.09</b>	<b>0.00</b>	<b>0.02</b>
D L-Methionine	<b>0.13</b>	<b>0.03</b>	<b>0.14</b>
Oats - Groats	<b><u>0.00</u></b>	<b><u>0.00</u></b>	<b><u>0.00</u></b>
<b>Total Must Equal 1000kg</b>	<b>1,000.00</b>	<b>1,000.00</b>	<b>1,000.00</b>

### Feed Requirement and Cost Summary

	Amount (kg)	Price (\$ /tonne)	Ration Cost (\$ /tonne)	Your Cost
<b>Sow Gestation</b>				
Wheat	259.00	\$159.00	\$41.18	_____
Barley	539.00	\$135.00	\$72.77	_____
Canola Meal	80.00	\$177.50	\$14.20	_____
Peas	91.00	\$200.00	\$18.20	_____
Sow Micro Premix	5.00	\$4,000.00	\$20.00	_____
Limestone	10.00	\$80.50	\$0.81	_____
Dical (16% Ca-21% P)	11.00	\$700.00	\$7.70	_____
Salt - 96%	3.50	\$85.00	\$0.30	_____
Phytase	0.50	\$7,175.00	\$3.59	_____
L-Lysine HCL	<u>1.00</u>	\$2,315.00	<u>\$2.32</u>	_____
<b>Total Sow Gestation:</b>	<b>1,000.00</b>		<b>\$181.07</b>	_____
Adjusted For Weight Loss		1.25 %	\$183.33	_____
Plus Processing Cost		\$5.00	<u>\$188.33</u>	_____
Plus Labour Cost		\$7.00	<b>\$195.33</b>	_____
<b>Sow Lactation</b>				
Wheat	568.70	\$159.00	\$90.42	_____
Barley	200.00	\$135.00	\$27.00	_____
Soybean Meal	196.00	\$340.00	\$66.64	_____
Sow Micro Premix	5.00	\$4,000.00	\$20.00	_____
Limestone	12.00	\$80.50	\$0.97	_____
Dical (16% Ca-21% P)	12.00	\$700.00	\$8.40	_____
Salt - 96%	5.00	\$85.00	\$0.43	_____
Phytase	0.50	\$7,175.00	\$3.59	_____
L-Lysine HCL	<u>0.80</u>	\$2,315.00	<u>\$1.85</u>	_____
<b>Total Sow Lactation:</b>	<b>1,000.00 kg</b>		<b>\$219.30</b>	_____
Adjusted For Weight Loss		1.25 %	\$222.04	_____
Plus Processing Cost		\$5.00	<u>\$227.04</u>	_____
Plus Labour Cost		\$7.00	<b>\$234.04</b>	_____
<b>Boar Ration:</b>				
Wheat	233.64	\$159.00	\$37.15	_____
Barley	539.00	\$135.00	\$72.77	_____
Canola Meal	102.00	\$177.50	\$18.11	_____
Peas	91.00	\$200.00	\$18.20	_____
Sow Micro Premix	5.00	\$4,000.00	\$20.00	_____
Limestone	12.00	\$80.50	\$0.97	_____
Dical (16% Ca-21% P)	12.00	\$700.00	\$8.40	_____
Salt - 96%	3.50	\$85.00	\$0.30	_____
Phytase	0.50	\$7,175.00	\$3.59	_____
L-Lysine HCL	<u>1.36</u>	\$2,315.00	<u>\$3.15</u>	_____
<b>Total Boar:</b>	<b>1,000.00 kg</b>		<b>\$182.64</b>	_____
Adjusted For Weight Loss		1.25 %	\$184.92	_____
Plus Processing Cost		\$5.00	<u>\$189.92</u>	_____
Plus Labour Cost		\$7.00	<b>\$196.92</b>	_____

	<b>Amount (kg)</b>	<b>Price (\$ /tonne)</b>	<b>Ration Cost (\$ /tonne)</b>	<b>Your Cost</b>
<b>Pre Starter 1</b>				
Wheat	106.00	\$159.00	\$16.85	_____
Soybean Meal	120.00	\$340.00	\$40.80	_____
Sow Micro Premix	5.00	\$4,000.00	\$20.00	_____
Canola Oil	27.00	\$975.00	\$26.33	_____
Whey Powder	121.00	\$995.00	\$120.40	_____
Fish Meal	61.00	\$1,380.00	\$84.18	_____
Plasma	59.00	\$5,450.00	\$321.55	_____
Limestone	12.50	\$80.50	\$1.01	_____
Dical (16% Ca-21% P)	10.00	\$700.00	\$7.00	_____
Salt - 96%	3.50	\$85.00	\$0.30	_____
L-Lysine HCL	0.50	\$2,315.00	\$1.16	_____
Oats - Groats	<u>474.50</u>	\$270.00	<u>\$128.12</u>	_____
<b>Total Pre Starter 1:</b>	<b>1,000.00 kg</b>		<b>\$767.70</b>	_____
Adjusted For Weight Loss		1.25 %	\$777.30	_____
Plus Processing Cost		\$5.00	<u>\$782.30</u>	_____
Plus Labour Cost		\$7.00	<b>\$789.30</b>	_____
<b>Pre Starter 2</b>				
Wheat	134.50	\$159.00	\$21.39	_____
Soybean Meal	130.00	\$340.00	\$44.20	_____
Sow Micro Premix	5.00	\$4,000.00	\$20.00	_____
Canola Oil	19.00	\$975.00	\$18.53	_____
Whey Powder	125.00	\$995.00	\$124.38	_____
Fish Meal	75.00	\$1,380.00	\$103.50	_____
Limestone	12.50	\$80.50	\$1.01	_____
Dical (16% Ca-21% P)	10.00	\$700.00	\$7.00	_____
Salt - 96%	3.50	\$85.00	\$0.30	_____
L-Lysine HCL	0.50	\$2,315.00	\$1.16	_____
Oats - Groats	<u>485.00</u>	\$270.00	<u>\$130.95</u>	_____
<b>Total Pre Starter 2</b>	<b>1,000.00 kg</b>		<b>\$472.42</b>	_____
Adjusted For Weight Loss		1.25 %	\$478.33	_____
Plus Processing Cost		\$5.00	<u>\$483.33</u>	_____
Plus Labour Cost		\$7.00	<b>\$490.33</b>	_____
<b>Starter 1</b>				
Wheat	400.00	\$159.00	\$63.60	_____
Corn	223.00	\$145.00	\$32.34	_____
Soybean Meal	204.50	\$340.00	\$69.53	_____
Sow Micro Premix	5.00	\$4,000.00	\$20.00	_____
Canola Oil	11.30	\$975.00	\$11.02	_____
Whey Powder	90.70	\$995.00	\$90.25	_____
Fish Meal	45.50	\$1,380.00	\$62.79	_____
Limestone	7.00	\$80.50	\$0.56	_____
Dical (16% Ca-21% P)	8.00	\$700.00	\$5.60	_____
Salt - 96%	3.50	\$85.00	\$0.30	_____
Phytase	0.50	\$7,175.00	\$3.59	_____
L-Lysine HCL	<u>1.00</u>	\$2,315.00	<u>\$2.32</u>	_____
<b>Total Starter 1</b>	<b>1,000.00 kg</b>		<b>\$361.90</b>	_____
Adjusted For Weight Loss		1.25 %	\$366.42	_____
Plus Processing Cost		\$5.00	<u>\$371.42</u>	_____
Plus Labour Cost		\$7.00	<b>\$378.42</b>	_____

	<b>Amount (kg)</b>	<b>Price (\$ /tonne)</b>	<b>Ration Cost (\$ /tonne)</b>	<b>Your Cost</b>
<b>Starter 2</b>				
Wheat	407.60	\$159.00	\$64.81	_____
Barley	65.00	\$135.00	\$8.78	_____
Corn	250.00	\$145.00	\$36.25	_____
Soybean Meal	227.00	\$340.00	\$77.18	_____
Sow Micro Premix	5.00	\$4,000.00	\$20.00	_____
Fish Meal	25.00	\$1,380.00	\$34.50	_____
Limestone	7.00	\$80.50	\$0.56	_____
Dical (16% Ca-21% P)	8.00	\$700.00	\$5.60	_____
Salt - 96%	3.50	\$85.00	\$0.30	_____
Phytase	0.50	\$7,175.00	\$3.59	_____
L-Lysine HCL	<u>1.40</u>	\$2,315.00	<u>\$3.24</u>	_____
<b>Total Starter 2</b>	<b>1,000.00 kg</b>		<b>\$254.81</b>	_____
Adjusted For Weight Loss		1.25 %	\$258.00	_____
Plus Processing Cost		\$5.00	<u>\$263.00</u>	_____
Plus Labour Cost		\$7.00	<b>\$270.00</b>	_____
<b>Starter</b>				
Wheat	532.56	\$159.00	\$84.68	_____
Barley	183.30	\$135.00	\$24.75	_____
Soybean Meal	158.80	\$340.00	\$53.99	_____
Peas	100.00	\$200.00	\$20.00	_____
Grower Micro Premix	3.00	\$3,000.00	\$9.00	_____
Limestone	12.21	\$80.50	\$0.98	_____
Dical (16% Ca-21% P)	4.85	\$700.00	\$3.40	_____
Salt - 96%	3.50	\$85.00	\$0.30	_____
Phytase	0.20	\$7,175.00	\$1.44	_____
L-Lysine HCL	1.36	\$2,315.00	\$3.15	_____
L-Threonine	0.09	\$3,500.00	\$0.32	_____
D L-Methionine	<u>0.13</u>	\$5,500.00	<u>\$0.72</u>	_____
<b>Total Starter</b>	<b>1,000.00 kg</b>		<b>\$202.73</b>	_____
Adjusted For Weight Loss		1.25 %	\$205.26	_____
Plus Processing Cost		\$5.00	<u>\$210.26</u>	_____
Plus Labour Cost		\$7.00	<b>\$217.26</b>	_____
<b>Grower</b>				
Wheat	372.4	\$159.00	\$59.21	_____
Barley	268.6	\$135.00	\$36.26	_____
Soybean Meal	45.4	\$340.00	\$15.43	_____
Canola Meal	84.4	\$177.50	\$14.98	_____
Peas	204.1	\$200.00	\$40.81	_____
Grower Micro Premix	3.0	\$3,000.00	\$9.00	_____
Limestone	11.7	\$80.50	\$0.94	_____
Dical (16% Ca-21% P)	5.4	\$700.00	\$3.77	_____
Salt - 96%	3.5	\$85.00	\$0.30	_____
Phytase	0.2	\$7,175.00	\$1.44	_____
L-Lysine HCL	1.36	\$2,315.00	\$3.15	_____
D L-Methionine	<u>0.03</u>	\$5,500.00	<u>\$0.17</u>	_____
<b>Total Grower</b>	<b>1,000.00 kg</b>		<b>\$185.46</b>	_____
Adjusted For Weight Loss		1.25 %	\$187.78	_____
Plus Processing Cost		\$5.00	<u>\$192.78</u>	_____
Plus Labour Cost		\$7.00	<b>\$199.78</b>	_____

	<b>Amount (kg)</b>	<b>Price (\$ /tonne)</b>	<b>Ration Cost (\$ /tonne)</b>	<b>Your Cost</b>
<b>Finisher</b>				
Wheat	220.04	\$159.00	\$34.99	
Barley	408.35	\$135.00	\$55.13	_____
Canola Meal	79.40	\$177.50	\$14.09	_____
Peas	272.13	\$200.00	\$54.43	_____
Grower Micro Premix	3.00	\$3,000.00	\$9.00	_____
Limestone	10.38	\$80.50	\$0.84	_____
Dical (16% Ca-21% P)	2.84	\$700.00	\$1.99	_____
Salt - 96%	3.50	\$85.00	\$0.30	_____
Phytase	0.20	\$7,175.00	\$1.44	_____
L-Threonine	0.02	\$3,500.00	\$0.07	_____
D L-Methionine	0.14	\$5,500.00	\$0.77	_____
<b>Total Finisher</b>	<b>1,000.00 kg</b>		<b>\$173.05</b>	_____
Adjusted For Weight Loss		1.25 %	\$175.21	_____
Plus Processing Cost		\$5.00	<b>\$180.21</b>	_____
Plus Labour Cost		\$7.00	<b>\$187.21</b>	_____

## Farrow Finish Pig Production Cost Worksheet

Your Cost

### A. Operating Costs

#### 1. Feed Requirements and Costs

##### 1.01 Sow Lactation

	20	days average weaning age	
x	2.30	litters/sow/year	
=	46.0	days lactation	
x	6.4	kg ration/day	
x	\$285.00	/tonne ration	
÷	1,000	kg/tonne	
÷	<u>21.13</u>	<u>pigs sold/sow/year</u>	
=	<b>\$3.97</b>	<b>/pig sold</b>	

##### 1.02 Sow Gestation

	365	days/year	
-	46.0	days lactation	
=	319.0	days gestation	
x	2.8	kg ration/day	
x	\$276.00	/tonne ration	
÷	1,000	kg/tonne	
÷	<u>21.13</u>	<u>pigs sold/sow/year</u>	
=	<b>\$11.46</b>	<b>/pig sold</b>	

##### 1.03 Boar Ration

	365	days	
x	3.0	kg ration/day	
x	\$276.00	/tonne ration	
÷	1,000	kg/tonne	
x	3	boars	
÷	500	sows	
÷	<u>21.13</u>	<u>pigs sold/sow/year</u>	
=	<b>\$0.09</b>	<b>/pig sold</b>	

##### 1.04 Pre Starter 1

	6.5	kg target sale weight	
-	6.0	kg target weaning weight	
=	0.5	kg weight gain	
x	1.0	feed conversion ratio	
=	0.5	kg ration/pig	
x	\$1,409.00	/tonne of creep feed	
÷	1,000	kg/tonne	
x	26.45	pigs born alive/sow/year	
÷	<u>21.13</u>	<u>pigs sold/sow/year</u>	
=	<b>\$0.88</b>	<b>/pig sold</b>	

**Your Cost**

**1.05 Pre Starter 2**

	8.3	kg target sale weight	_____
-	6.5	kg target weaning weight	_____
=	1.8	kg weight gain	_____
x	1.2	feed conversion ratio	_____
=	2.1	kg ration/pig	_____
x	\$1,059.00	/tonne starter ration #1	_____
÷	1,000	kg/tonne	_____
x	22.45	weaners transferred/sow/year	_____
÷	<u>21.13</u>	<u>pigs sold/sow/year</u>	_____
=	<b>\$2.36</b>	<b>/pig sold</b>	_____

**1.06 Starter 1**

	15.00	kg target sale weight	_____
-	8.30	kg target weaning weight	_____
=	6.70	kg weight gain	_____
x	1.40	feed conversion ratio	_____
=	9.40	kg ration/pig	_____
x	\$588.00	/tonne starter ration #2	_____
÷	1,000	kg/tonne	_____
x	22.45	weaners transferred/sow/year	_____
÷	<u>21.13</u>	<u>pigs sold/sow/year</u>	_____
=	<b>\$5.87</b>	<b>/pig sold</b>	_____

**1.07 Starter 2**

	26.8	kg target sale weight	_____
-	15.0	kg target weaning weight	_____
=	11.8	kg weight gain	_____
x	1.64	feed conversion ratio	_____
=	19.25	kg ration/pig	_____
x	\$397.00	/tonne starter ration #2	_____
÷	1,000	kg/tonne	_____
x	22.45	weaners transferred/sow/year	_____
÷	<u>21.13</u>	<u>pigs sold/sow/year</u>	_____
=	<b>\$8.12</b>	<b>/pig sold</b>	_____

**1.08 Starter Ration**

	13.3	kg weight gain/pig	_____
x	1.90	feed conversion ratio	_____
=	25.2	kg ration/pig	_____
x	\$257.00	/tonne ration	_____
÷	<u>1,000</u>	<u>kg/tonne</u>	_____
=	<b>\$6.47</b>	<b>/pig sold</b>	_____

**Your Cost**

**1.09 Grower Ration**

	55.0	kg weight gain/pig	_____
x	2.70	feed conversion ratio	_____
=	148.5	kg ration/pig	_____
x	\$240.00	/tonne ration	_____
÷	<u>1,000</u>	<u>kg/tonne</u>	_____
=	<b>\$35.64</b>	<b>/pig sold</b>	_____

**1.10 Finisher Ration**

	23.0	kg weight gain/pig	_____
x	3.20	feed conversion ratio	_____
=	73.6	kg ration/pig	_____
x	\$235.00	/tonne ration	_____
÷	<u>1,000</u>	<u>kg/tonne</u>	_____
=	<b>\$17.30</b>	<b>/pig sold</b>	_____

**2. Other Operating Costs**

**2.01 Veterinary Medicine & Supplies**

	\$6.00	/sow/year services	_____
+	\$60.00	/sow/year medication	_____
÷	<u>21.13</u>	<u>pigs sold/sow/year</u>	_____
=	\$3.12	/pig sold	_____
	\$0.00	/pig transferred in	_____
x	11,225	pigs transferred in	_____
÷	<u>10,566</u>	<u>pigs sold</u>	_____
=	\$0.00	/pig sold	_____
=	<b>\$3.12</b>	<b>/pig sold</b>	_____

**2.02 Maintenance & Repairs**

	\$3,190,583	building & equipment	_____
x	0.55	%/sow/year repair & maintenance	_____
÷	<u>10,566</u>	<u>pigs sold/sow/year</u>	_____
=	<b>\$1.66</b>	<b>/pig sold</b>	_____

**2.03 Hydro & Propane/Natural Gas**

	\$38,025	propane/natural gas	_____
x	\$24,445	hydro	_____
÷	<u>10,566</u>	<u>pigs sold</u>	_____
=	<b>\$5.91</b>	<b>/pig sold</b>	_____

**2.04 Insurance**

	\$3,190,583	buildings & equipment	_____
x	\$0.78	rate/\$100	_____
÷	100	/\$100 capital invested	_____
÷	<u>10,566</u>	<u>pigs sold</u>	_____
=	\$2.36	/pig sold	_____
	\$150,900	breeding stock	_____
+	\$481,316	market hogs value	_____
÷	\$0.88	/\$100 capital invested	_____
÷	<u>10,566</u>	<u>pigs sold</u>	_____

			<u><b>Your Cost</b></u>
=	\$0.53	/pig sold	_____
	\$1,200.00	business interruption coverage/sow	_____
x	500	sows	_____
x	\$0.78	/\$100 capital invested	_____
÷	<u>10,566</u>	<u>pigs sold</u>	_____
=	\$0.44	/pig sold	_____
<b>=</b>	<b>\$3.32</b>	<b>/pig sold</b>	_____
<b>2.05 Manure Costs</b>			
	89.0	litres/sow/day	_____
x	\$0.002	/litres haulage rate	_____
x	365	days	_____
÷	<u>21.13</u>	<u>pigs sold/sow/year</u>	_____
=	\$3.38	/pig sold	_____
		Odour control & Mgmt Fees	
	\$3,000	total costs	_____
÷	<u>10,566</u>	<u>pigs sold</u>	_____
=	\$0.28	/pig sold	_____
<b>Total =</b>	<b>\$3.67</b>	<b>/pig sold</b>	_____
<b>2.06 Office Supplies</b>			
	\$2.00	\$/sow	_____
÷	<u>21.13</u>	<u>pigs sold/sow/year</u>	_____
=	<b>\$0.09</b>	<b>/pig sold</b>	_____
<b>2.07 Marketing &amp; Transportation</b>			
	\$0.00	trucking in	_____
+	\$4.00	trucking out	_____
+	\$0.80	council levy	_____
+	\$0.06	grading charge	_____
+	\$0.25	insurance	_____
±	<u>\$0.00</u>	<u>special levy</u>	_____
=	<b>\$5.11</b>	<b>/pig sold</b>	_____

			<u>Your Cost</u>
<b>2.08 AI Costs</b>			
	2.30	Number of services/sow	_____
x	\$7.50	Cost/dose (semen)	_____
x	500	sows	_____
x	2.30	Litters/Sow/Year	_____
÷	<u>10,566</u>	<u>pigs sold</u>	_____
=	\$1.88	<b>/pig sold</b>	_____

<b>2.09 Herd Replacement</b>			
Sow	180.0	kg/sow (cull weight)	_____
x	\$77.28	/100 kg live	_____
=	\$139.10	/sow value of cull	_____
	\$300.00	/sow value of replacement	_____
-	\$139.10	/sow value of cull	_____
=	\$160.90	net replacement cost	_____
x	40.0	percent sow culling rate	_____
÷	<u>21.13</u>	<u>pigs sold/sow/year</u>	_____
=	<b>\$3.05</b>	<b>/pig sold</b>	_____

Boar	225.0	kg/boar (cull weight)	_____
x	\$55.20	/100 kg live	_____
=	\$124.20	/boar value of cull	_____
	\$300	/boar value of replacement	_____
-	\$124.20	/boar value of cull	_____
=	\$175.80	net replacement cost	_____
x	50.0	% culling rate	_____
x	3	number of boars	_____
÷	500	number of sows	_____
÷	<u>21.13</u>	<u>pigs sold/sow/year</u>	_____
=	<b>\$0.02</b>	<b>/pig sold</b>	_____

**Total \$3.07 /pig sold**

<b>2.10 Property Taxes</b>			
	\$8,000	total taxes	_____
÷	<u>10,566</u>	<u>pigs sold</u>	_____
=	<b>\$0.76</b>	<b>/pig sold</b>	_____

**2.11 Interest on Operating Cost:**

<u>Sub-total Operating Cost x days to market x interest</u>			
	<u>2</u>		<u>365</u>
	\$120.75	subtotal operating	_____
÷	2	average	_____
x	188	days farrow to farrow	_____
÷	365	days per year	_____
x	<u>6.5</u>	<u>% operating interest rate</u>	_____
=	<b>\$2.02</b>	<b>/pig sold</b>	_____

**Your Cost**

**B. Fixed Costs**

**3. Depreciation: Original cost - Salvage Value  
Useful Life**

**3.01 Buildings**

	\$1,389,648	building cost (including earthen manure storage)	_____
-	\$190,094	salvage value (building only)	_____
÷	20	years useful life	_____
÷	<u>10,566</u>	<u>pigs sold</u>	_____
=	<b>\$5.68</b>	<b>/pig sold</b>	_____

**3.02 Equipment**

	\$1,289,648	equipment cost	_____
-	\$128,965	salvage value	_____
÷	10	years useful life	_____
÷	<u>10,566</u>	<u>pigs sold</u>	_____
=	<b>\$10.98</b>	<b>/pig sold</b>	_____

**4. Investment: (Original Cost + Salvage Value) X % Investment Interest  
2**

**4.01 Land Cost**

	\$10,000	land investment	_____
+	\$30,000	site preparation	_____
x	3.5	% investment rate	_____
÷	<u>10,566</u>	<u>pigs marketed</u>	_____
=	<b>\$0.13</b>	<b>/pig sold</b>	_____

**4.02 Buildings**

	\$2,000,935	building cost (including earthen manure storage)	_____
+	\$190,094	salvage value (building only)	_____
÷	2	average	_____
x	3.5	% investment rate	_____
÷	<u>10,566</u>	<u>pigs sold</u>	_____
=	<b>\$3.63</b>	<b>/pig sold</b>	_____

**4.03 Equipment**

	\$1,289,648	equipment cost/sow	_____
+	\$128,965	salvage value/sow	_____
÷	2	average	_____
x	3.5	% investment rate	_____
÷	<u>10,566</u>	<u>pigs sold</u>	_____
=	<b>\$2.35</b>	<b>/pig sold</b>	_____

**Your Cost**

**4.04 Breeding Stock**

	\$150,900	value of breeding stock	_____
x	3.5	% investment rate	_____
÷	<u>10,566</u>	<u>pigs sold</u>	_____
=	<b>\$0.50</b>	<b>/pig sold</b>	_____

**C. Labour**

Farrow Wean	120.0	hours/week	_____
x	52	weeks/year	_____
x	\$18.00	/hour	_____
÷	500	sows	_____
÷	<u>21.13</u>	<u>pigs sold/sow/year</u>	_____
=	<b>\$10.63</b>	<b>/pig sold</b>	_____

Grower Finish	90	hours/week	_____
	52	weeks/year	_____
x	\$17.00	/hour	_____
÷	<u>10,566</u>	<u>pigs sold/sow/year</u>	_____
=	<b>\$7.53</b>	<b>/pig sold</b>	_____

Total	=	<b>\$18.16</b>	<b>/pig sold</b>	_____
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### Summary of Purchased Feeds Used

Farrow finish Total sold	500 sows 10,566 pigs sold		Total per Pig (kgs)	Total per Pig (lbs)
	Total per Year (tonnes)	Total per Month (tonnes)		
Dry Sow Ration	439	36.6	41.5	91.5
Nursing Sow Ration	147	12.3	13.9	30.7
Boar Ration	3	0.3	0.3	0.7
Per Starter 1(Ration 1)	6	0.5	0.5	1.2
Pre Starter 2 (Ration 2)	24	2.0	2.3	5.1
Starter 1 (Ration 3)	109	9.1	10.3	22.7
Starter 2 (Ration 4)	223	18.6	21.1	46.5
Starter	291	24.3	27.6	60.8
Grower	1,718	143.2	162.6	358.6
Finish	<u>852</u>	<u>71.0</u>	<u>80.6</u>	<u>177.7</u>
<b>Total</b>	<b>3,812.2</b>	<b>317.7</b>	<b>360.8</b>	<b>795.4</b>

### Summary of Home Mixed Feed Ingredients Used

	Total per Year (tonnes)	Total per Month (tonnes)	Total per Pig (kgs)	Total per Pig (lbs)
	Wheat	0.0	0.0	0.0
Barley	0.0	0.0	0.0	0.0
Corn	0.0	0.0	0.0	0.0
Soybean Meal	0.0	0.0	0.0	0.0
Canola Meal	0.0	0.0	0.0	0.0
Peas	0.0	0.0	0.0	0.0
Sow Micro Premix	0.0	0.0	0.0	0.0
Grower Micro Premix	0.0	0.0	0.0	0.0
Canola Oil	0.0	0.0	0.0	0.0
Whey Powder	0.0	0.0	0.0	0.0
Fish Meal	0.0	0.0	0.0	0.0
Plasma	0.0	0.0	0.0	0.0
Limestone	0.0	0.0	0.0	0.0
Dical (16% Ca-21% P)	0.0	0.0	0.0	0.0
Salt - 96%	0.0	0.0	0.0	0.0
Phytase	0.0	0.0	0.0	0.0
L-Lysine HCL	0.0	0.0	0.0	0.0
L-Threonine	0.0	0.0	0.0	0.0
D L-Methionine	0.0	0.0	0.0	0.0
Oats - Groats	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>
<b>Total Ration Used</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
<b>Total</b>	<b>3,812.2</b>	<b>317.7</b>	<b>360.8</b>	<b>795.4</b>

For further information contact your local MAFRI office.

Prepared by:  
Robyn Harte  
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## Return On Assets (ROA)

### Assumptions

Total Assets	\$3,732,620	asset value
Number of Sows	500	sows
Total Hogs Sold	10,727	hogs sold
Sold/Sow/Year	21.13	pigs marketed
Days to Market	188	days
Market Weight (shrunk)	116.8	kg/hog (live)
Dressing %	80	%
Carcass Weight	93.5	kg/hog carcass
Market Index	110	
Market Price	\$138.00	/100 kg carcass

### Return On Assets Calculation

	<u>\$/Hog Sold</u>	<u>% Of Total</u>
<b>Revenue</b>		
Based on Pork Price	\$141.87	
Plus Premium per Head	<u>\$2.00</u>	
<b>Total Revenue</b>	<b>\$143.87</b>	
<b>Expenses</b>		
Feed Costs	\$92.15	56.1%
Other Operating Costs	\$28.60	17.4%
Interest on Operating Costs	<u>\$2.02</u>	<u>1.2%</u>
<b>Total Operating Costs</b>	<b>\$122.77</b>	<b>74.8%</b>
Depreciation	\$16.66	10.1%
Interest on Investment	\$6.61	4.0%
Labour (Family + Hired)	<u>\$18.16</u>	<u>11.1%</u>
<b>Total Expenses (Cost Of Production)</b>	<b>\$164.20</b>	<b>100.0%</b>
<b>Net Income</b>	<u><u><b>(\$20.34)</b></u></u>	
<b>Return On Assets (ROA)</b>		<b>-3.36%</b>

$$\text{Return on Assets} = \frac{\text{Net Income} + \text{Operating Interest} + \text{Investment Interest} - \text{Value of Unpaid Family and Operator Labour}}{\text{Total Assets}}$$

### Total Assets

Definition: Total assets includes the buildings, equipment, land, manure storage and breeding stock valued at replacement cost.

### Cash Flow Calculation

<b>Income</b>	
Rate per market pig	<b>\$143.87</b>
Number of pigs marketed	<b><u>10,566</u></b>
<b>Total Income</b>	<b>\$1,520,104</b>
<b>Operating Expenses</b>	
Feed Cost	\$973,716
Feeder Cost	\$0
Veterinary Medicine & Supplies	\$33,000
Maintenance & Repairs	\$17,548
Hydro & Propane	\$62,470
Insurance	\$35,130
Manure Costs	\$38,734
Office Supplies	\$1,000
Levy, Marketing & Transportation	\$53,993
Insemination & Replacement Costs	\$52,280
Property Taxes	\$8,000
Interest on Operating Cost	\$21,329
<b>Total Operating Costs</b>	<b>\$1,297,200</b>
Manure Value	\$0
<b>Total Operating Costs</b>	<b>\$1,297,200</b>
<b>Labour Costs</b>	<b>\$191,880</b>
<b>Loan Payment</b>	
Total Capital Investment	\$3,451,483
Portion financed %	<b>60.0%</b>
Loan Amount	\$2,070,890
Term in years	<b>20.0</b>
Interest Rate	<b>6.0%</b>
<b>Annual Payment</b>	<b>\$180,550</b>

<b>Returns to Enterprise</b>	
Cash over operating costs	\$222,904
Cash over operating & loan payments	\$42,354
Cash over total (includes labour)	-\$149,526

<b>Breakeven Calculations \$/market pig</b>	
Breakeven operating	\$122.77
Breakeven operating & loan payments	\$139.86
Breakeven total (includes labour)	\$158.02