



Guidelines for Estimating Weaner Pig (Nursery) Costs 2019/2020

in Manitoba



Guidelines For Estimating
Weaner Pig (Nursery) Costs 6 to 26 kg
Based on marketing 35,512 pigs

Date: September, 2018

This guide is designed to provide you with planning information and a format for calculating costs of production of a swine weaner 6 to 26 kg enterprise in Manitoba. This type of operation is intended to represent the second stage, or nursery, of a three stage pork system. General Manitoba Agriculture recommendations are assumed in using feed and veterinary inputs. These figures provide an economic evaluation of the livestock and estimated prices required to cover all costs. Costs include labour, investment and depreciation, but do not include management costs, nor do they necessarily represent the average cost of production in Manitoba.

These budgets may be adjusted by putting in your own figures. As a producer you are encouraged to calculate your own costs of production. 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.

This tool is available as an Excel worksheet at: www.manitoba.ca/agriculture or at your local [Manitoba Agriculture office](#).

[The Farm Machinery Custom and Rental Rate Guide](#) is also available to help determine machinery costs.

Note: 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 use of this information is the responsibility of the user. If you need help with a budget, contact your local Manitoba Agriculture Office.

Weaner Pig (Nursery) Costs 6 to 26 kg Cost of Production

The following farrow wean cost of production budget is based on the assumption that all feed is purchased or home mixed.

The budget includes a land investment cost for 40 acres, with 0 acres rented out at \$60 per acre, of the estimated 81 to 126 acres of total landbase that would be required for this size of livestock operation. This land base falls within the 2XP2O5 application rate, soil phosphorus levels permitting.

If developing a cost of production budget to include home mixed rations the following items should be added to the budget:

- additional equipment costs associated with a mix mill;
- additional bins for different ingredients;
- additional labour for feed preparation.

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 what the feed intakes of their animals are. Please consult with a nutritionist for diet formulations 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 starting up or switching to a swine nursery 6 to 26 kg 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.

Weaner Pig (Nursery) 6 to 26 kg Summary - September, 2018

	Purchased Feed		Home-Mixed Feed		Your Cost
	\$/Pig Sold	Total Cost	\$/Pig Sold	Total Cost	
A. Operating Costs					
1. Feed Costs:					
1.01 Pre Starter 1	\$1.53	\$54,333	\$0.79	\$28,054	_____
1.02 Pre Starter 2	\$5.54	\$196,736	\$2.69	\$95,527	_____
1.03 Starter 1	\$12.03	\$427,209	\$5.64	\$200,288	_____
1.04 Starter 2	<u>\$18.34</u>	<u>\$651,290</u>	<u>\$9.75</u>	<u>\$346,242</u>	_____
Total Feed Cost	\$37.44	\$1,329,568	\$18.87	\$670,111	_____
2. Other Operating Costs:					
2.01 Weanling cost	\$38.23	\$1,357,446	\$38.23	\$1,357,446	_____
2.02 Veterinary Medicine & Supplies	\$2.82	\$100,000	\$2.82	\$100,000	_____
2.03 Maintenance & Repairs	\$0.13	\$4,617	\$0.13	\$4,617	_____
2.04 Hydro & Propane	\$1.21	\$43,054	\$1.21	\$43,054	_____
2.05 Insurance	\$0.24	\$8,523	\$0.24	\$8,523	_____
2.06 Manure Costs	\$0.32	\$11,534	\$0.32	\$11,534	_____
2.07 Office Supplies	\$0.04	\$1,560	\$0.04	\$1,560	_____
2.08 Levy, Marketing & Transportation	\$3.24	\$115,059	\$3.24	\$115,059	_____
2.09 Property Taxes	<u>\$0.20</u>	<u>\$6,945</u>	<u>\$0.20</u>	<u>\$6,945</u>	_____
Subtotal Operating Costs	\$83.87	\$2,978,306	\$65.30	\$2,318,849	_____
2.10 Interest on Operating Cost	<u>\$0.50</u>	<u>\$17,756</u>	<u>\$0.42</u>	<u>\$14,915</u>	_____
Total Operating Costs	\$84.37	\$2,996,062	\$65.72	\$2,333,764	_____
B. Fixed Costs					
3. Depreciation:					
3.01 Buildings and Manure Storage	\$0.42	\$14,915	\$0.44	\$15,625	_____
3.02 Equipment	<u>\$1.08</u>	<u>\$38,353</u>	<u>\$1.22</u>	<u>\$43,325</u>	_____
Total Depreciation Cost	\$1.50	\$53,268	\$1.66	\$58,950	_____
4. Investment:					
4.01 Land Cost	\$0.07	\$2,475	\$0.07	\$2,475	_____
4.02 Buildings and Manure Storage	\$0.17	\$6,037	\$0.18	\$6,392	_____
4.03 Equipment	<u>\$0.18</u>	<u>\$6,392</u>	<u>\$0.20</u>	<u>\$7,102</u>	_____
Total Investment Cost	<u>\$0.42</u>	<u>\$14,904</u>	<u>\$0.45</u>	<u>\$15,970</u>	_____
Total Fixed Costs	\$1.92	\$68,172	\$2.11	\$74,920	_____
C. Labour					
Wages, benefits and hired manager	\$1.55	\$55,044	\$1.55	\$55,044	_____
Total Cost of Production	\$87.84	\$3,119,278	\$69.38	\$2,463,728	_____

Profitability and Breakeven Analysis

	Per Pig	Total	Per Pig	Total
Estimated Farmgate				
Market Price per weanling	\$69.50	\$2,468,084	\$69.50	\$2,468,084
Land rental per head sold	<u>\$0.00</u>	<u>\$0</u>	<u>\$0.00</u>	<u>\$0</u>
Gross Revenue / hog	\$69.50	\$2,468,084	\$69.50	\$2,468,084
Marginal Returns				
Over Operating Costs	(\$14.87)	(\$527,979)	\$3.78	\$134,320
Over Operating & Labour Costs	(\$16.42)	(\$583,022)	\$2.23	\$79,277
Over Total Costs (Net Profit)	(\$18.34)	(\$651,194)	\$0.12	\$4,357
Operating Expense Ratio	121.4%		94.6%	
Breakeven Selling Price				
	\$/Pig		\$/Pig	
Operating Costs	\$84.37		\$65.72	
Operating & Labour Costs	\$85.92		\$67.27	
Total Costs	\$87.84		\$69.38	
Return On Assets (ROA)	(57.8%)		3.1%	

Note: 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.

Risk & Sensitivity Analysis

	Purchased Feed Per Pig	Home-Mixed Feed Per Pig
A. Operating Costs		
Feed cost	\$37.44	\$18.87
Weanling cost	\$38.23	\$38.23
Other Operating Costs	<u>\$8.70</u>	<u>\$8.62</u>
Subtotal	\$84.37	\$65.72
B. Fixed Costs	\$1.92	\$2.11
C. Labour	<u>\$1.55</u>	<u>\$1.55</u>
Total Costs	\$87.84	\$69.38

Estimated Farmgate

Price (\$ per weanling)	\$69.50	\$69.50
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	Up	Down
Percent Market Price Variation	10.0%	10.0%
Percent Feed Cost Variation	10.0%	5.0%
Percent Weanling Cost Variation	5.0%	5.0%

Higher Market Price	\$76.45	\$76.45
Lower Market Price	\$62.55	\$62.55
Higher Feed Cost	\$41.18	\$20.76
Lower Feed Cost	\$35.57	\$17.93
Higher Weanling Purchase Cost	\$40.14	\$40.14
Lower Weanling Purchase Cost	\$36.31	\$36.31

Higher Margin Scenario - Market Price Up 10%, Feed Price Down 5% and Weanling Purchase Cost Down 5%

Operating Costs	\$80.58	\$62.86
Total Costs	\$84.05	\$66.52
Gross Revenue / hog	\$76.45	\$76.45
Marginal Returns		
Over Operating Costs	(\$4.13)	\$13.59
Over Operating & Labour Costs	(\$5.68)	\$12.04
Over Total Costs (Net Profit)	(\$7.60)	\$9.93
Operating Expense Ratio	105.4%	82.2%
Return on Asset (ROA)	(21.99%)	32.98%

Lower Margin Scenario - Market Price Down 10%, Feed Price Up 10% and Weanling Purchase Cost Up 5%

Operating Costs	\$90.02	\$69.52
Total Costs	\$93.49	\$73.18
Gross Revenue / hog	\$62.55	\$62.55
Marginal Returns		
Over Operating Costs	(\$27.47)	(\$6.97)
Over Operating & Labour Costs	(\$29.02)	(\$8.52)
Over Total Costs (Net Profit)	(\$30.94)	(\$10.63)
Operating Expense Ratio	143.9%	111.1%
Return on Asset (ROA)	(101.57%)	(30.76%)

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Weaner Pig (Nursery) Production Costs 6 to 26 kg

1. This input table outlines the cost of production for the weaner barn only.
2. Buildings and equipment are valued at new cost.
3. Manure haulage is contracted out.

Herd Profile

Weaner Pig Places	5,200	
Number of turns	7	
Weaner Pigs Purchased	36,400	
Percent Post-Weaning Mortality	2.4	
Pigs Died, Post-Weaning	888	
Weaner Pigs Sold	35,512	
Average Market Price	\$69.50 /cwt	\$153.22 /ckg
Weanling Formula Factor (% of Mkt Price)	55.00 %	
Calculated Weanling Purchase Price	\$38.23 /pig	

Feed Requirements

		<u>Ration Cost per tonne</u>	
		<u>Purchased</u>	<u>Home-Mixed</u>
Pre Starter 1(sew)	0.8 kg/pig	\$1,917.38	\$987.92
Pre Starter 2	4.0 kg/pig	\$1,386.06	\$671.45
Starter 1	11.9 kg/pig	\$1,011.01	\$473.78
Starter 2	24.0 kg/pig	\$764.15	\$406.08
Total Feed	40.7 kg/pig		

Weaner Pig Efficiency

	<u>Ration 1</u>	<u>Ration 2</u>	<u>Ration 3</u>	<u>Ration 4</u>	
Days Post-Weaning (nursery)	2.0	8.0	17.0	15.0	42
Target Starting Weight (kg)	6.0	6.5	9.0	16.0	6.0
Target Ending Weight (kg)	6.5	9.0	16.0	26.0	26.0
Feed Conversion Ratio	1.60	1.60	1.70	2.40	2.04
Average Daily Gain (kg)	0.25	0.31	0.41	0.67	0.52

Days Weaner on feed (nursery)	42 days
Total Cycle Days (per turn)	52 days
Target Starting Weight	6.0 kg
Target Ending Weight	26.0 kg
Feed Conversion Ratio (feed:gain)	2.04 kg
Average Daily Gain	0.52 kg

Labour

Total Hours per 7-day week	48.0 hours/week
Wage (includes benefits & hired manager)	\$22.00 /hour

Capital Investment

	<u>\$/Sq. Ft.</u>	<u>\$/Pig Place</u>	<u>Total</u>	<u>Your Cost</u>
Buildings				

Barn	15,600 sq ft	\$23.00	\$69.00	\$358,800	_____
Office & loading				\$5,000	_____
Feed Mill (building only)				\$25,000	_____
Total Building Cost				\$363,800	_____
Equipment					
Nursery barn				\$310,000	_____
Generator				\$13,000	_____
Electrical & other				\$90,000	_____
Fire Alarm System				\$1,000	_____
Feed Bins				\$11,000	_____
Feed Mill (equipment only)				\$50,000	_____
Total Equipment Cost				\$475,000	_____
Total Buildings and Equipment Cost			\$161.31	\$838,800	_____
Land Value					
Land Investment	40 acres @	\$1,500		\$60,000	_____
Land Investment	0 acres @	\$1,500		\$0	_____
Other Costs					
Site preparation				\$30,000	_____
Manure Storage				\$35,000	_____
Total Other Costs				\$65,000	_____
Total Capital Investment			\$185.35	\$963,800	_____
Fixed Costs					
Depreciation (straight line):					
Useful Life:					
Buildings			25	years	
Equipment			10	years	
Salvage Value (% of original cost):					
Buildings			10.00	%	
Equipment			10.00	%	
Investment Interest Rate			2.75	%	
Other Operating Costs, Taxes and Land					
Veterinary Costs:	Professional Services		\$2,000	total	
	Medication		\$98,000	total	
Maintenance & Repair			0.55	% of Total Capital Investment	
Hydro & Propane					
	Hydro rate		\$0.08527	per kwhr	
	Hydro usage		200,000	kwhr	
	Propane rate		\$0.52	per litre	
	Propane usage		50,000	litres	

Insurance

Buildings and Equipment	\$0.65	/\$100 Capital Invested
Market Pigs	\$0.65	/\$100 Capital Invested
Business Interruption	\$0.65	/\$100 Capital Invested
Business Interruption Value	\$45.00	per market pig
Market Hog Value	\$55.00	market value

Manure Costs:

Storage volume	2.4	litres/pig/day
	\$0.002	/litre
	\$0.010	/gallon
Odour control (barley straw)	\$0	total cost
Manure Management Fee	\$3,000	total cost

Manure nutrient content	nutrient kg/1000 <u>litres</u>	fertilizer value <u>\$/lb</u>	% nutrient value cost <u>recovery / sale</u>
Total Nitrogen	2.62	0.434	60
Phosphate (P2O5)	0.59	0.461	0
Potassium	1.37	0.314	0

* kg/1000 L x 10 = lbs/1000 imp. Gallons

Office supplies **\$0.30** /pig place

Marketing & Transportation

Trucking in	\$3.00	/pig
Trucking out	\$0.00	/pig
Council Levy	\$0.19	/pig
Grading Charge	\$0.00	/pig
Truck Washing	\$0.00	/pig
Insurance	\$0.05	/pig
Special Levy	\$0.00	/pig

Property Tax:

Tax on Weanling Barn & Land	\$6,945	/year
Land	\$4.35	/acre

Land Value

Number of acres	40
Number of acres rented out	0
Rental rate	\$60
Land value per acre	\$1,500

Operating Loan Interest Rate **5.75** %

** FOOTNOTE: 1 cubic metre = 1000 litres
 1 cubic metre = 35.314 cubic feet
 1 cubic metre = 219.97 imperial gallons

Feed Ingredient Costs

Ingredients	Price/tonne	Your Cost
Wheat	\$216.00	_____
Barley	\$197.00	_____
Corn	\$175.00	_____
Soybean Meal - 47 %	\$525.00	_____
Canola Meal - 34%	\$350.00	_____
Peas	\$260.00	_____
Grower Micro Premix	\$6,850.00	_____
Canola Oil	\$1,022.50	_____
Whey Powder	\$537.00	_____
Fish Meal	\$3,030.00	_____
Plasma	\$6,270.00	_____
Limestone	\$121.00	_____
Dical (16% Ca-21% P)	\$723.00	_____
Salt - 96%	\$178.00	_____
Phytase	\$12,941.00	_____
L-Lysine HCL	\$2,014.00	_____
L-Threonine	\$2,351.00	_____
D,L-Methionine	\$3,568.00	_____
Oats - Steam rolled	\$392.00	_____
Processing Cost (Hydro & Repairs/Maintenance & Insurance)	\$5.00	_____
Percent Weight loss due to processing	1.25 %	_____
Labour	\$7.00	_____

Suggested Home Mixed Rations

	Pre starter 1	Pre starter 2	Starter 1	Starter 2
	(kg)	(kg)	(kg)	(kg)
Wheat	106.00	134.50	405.00	404.00
Barley	0.00	0.00	0.00	65.00
Corn	0.00	0.00	249.00	250.00
Soybean Meal - 47 %	120.00	130.00	200.00	227.00
Canola Meal - 34%	0.00	0.00	0.00	0.00
Peas	0.00	0.00	0.00	0.00
Grower Micro Premix	5.00	5.00	5.00	5.00
Canola Oil	27.00	19.00	11.00	0.00
Whey Powder	121.00	125.00	70.00	0.00
Fish Meal	61.00	75.00	40.00	25.00
Plasma	59.00	0.00	0.00	0.00
Limestone	12.50	12.50	7.00	11.00
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	0.50	0.50	0.50
L-Lysine HCL	0.50	0.00	1.00	1.00
L-Threonine	0.00	0.00	0.00	0.00
D,L-Methionine	0.00	0.00	0.00	0.00
Oats - Steam rolled	474.50	485.00	0.00	0.00
Total must equal 1000 kg	1,000.00	1,000.00	1,000.00	1,000.00

Total Feed Ingredients per Weanling -- Nursery Barn

	Pre starter 1	Pre starter 2	Starter 1	Starter 2	Total
	(tonnes)	(tonnes)	(tonnes)	(tonnes)	(tonnes)
Wheat	3.1	19.6	175.4	352.9	551.0
Barley	0.0	0.0	0.0	56.8	56.8
Corn	0.0	0.0	107.9	218.4	326.3
Soybean Meal - 47 %	3.5	18.9	86.6	198.3	307.4
Canola Meal - 34%	0.0	0.0	0.0	0.0	0.0
Peas	0.0	0.0	0.0	0.0	0.0
Grower Micro Premix	0.1	0.7	2.2	4.4	7.4
Canola Oil	0.8	2.8	4.8	0.0	8.3
Whey Powder	3.5	18.2	30.3	0.0	52.0
Fish Meal	1.8	10.9	17.3	21.8	51.9
Plasma	1.7	0.0	0.0	0.0	1.7
Limestone	0.4	1.8	3.0	9.6	14.8
Dical (16% Ca-21% P)	0.3	1.5	3.5	7.0	12.2
Salt - 96%	0.1	0.5	1.5	3.1	5.2
Phytase	0.0	0.1	0.2	0.4	0.7
L-Lysine HCL	0.0	0.0	0.4	0.9	1.3
L-Threonine	0.0	0.0	0.0	0.0	0.0
D,L-Methionine	0.0	0.0	0.0	0.0	0.0
Oats - Steam rolled	<u>13.8</u>	<u>70.6</u>	<u>0.0</u>	<u>0.0</u>	<u>84.4</u>
Total Ration used (tonnes)	29.1	145.6	433.2	873.6	1,481.5

Summary of Feed Ingredients Used for a **Farrow-Weanling Operation**

Weanlings Sold	35,512	
	Total	Total
	per Year	per Month
	(tonnes)	(tonnes)
Wheat	551.0	45.9
Barley	56.8	4.7
Corn	326.3	27.2
Soybean Meal - 47 %	307.4	25.6
Canola Meal - 34%	0.0	0.0
Peas	0.0	0.0
Grower Micro Premix	7.4	0.6
Canola Oil	8.3	0.7
Whey Powder	52.0	4.3
Fish Meal	51.9	4.3
Plasma	1.7	0.1
Limestone	14.8	1.2
Dical (16% Ca-21% P)	12.2	1.0
Salt - 96%	5.2	0.4
Phytase	0.7	0.1
L-Lysine HCL	1.3	0.1
L-Threonine	0.0	0.0
D,L-Methionine	0.0	0.0
Oats - Steam rolled	<u>84.4</u>	<u>7.0</u>
Total Ration used (tonnes)	1,481.5	123.5

Feed Requirement and Cost Summary

	Amount (kg)	Price \$/tonne	Ration Cost \$/tonne	Your Cost
Pre starter 1				
Wheat	106.0	\$216.00	\$22.90	_____
Barley				_____
Corn				_____
Soybean Meal - 47 %	120.0	\$525.00	\$63.00	_____
Canola Meal - 34%				_____
Peas				_____
Grower Micro Premix	5.0	\$6,850.00	\$34.25	_____
Canola Oil	27.0	\$1,022.50	\$27.61	_____
Whey Powder	121.0	\$537.00	\$64.98	_____
Fish Meal	61.0	\$3,030.00	\$184.83	_____
Plasma	59.0	\$6,270.00	\$369.93	_____
Limestone	12.5	\$121.00	\$1.51	_____
Dical (16% Ca-21% P)	10.0	\$723.00	\$7.23	_____
Salt - 96%	3.5	\$178.00	\$0.62	_____
Phytase				_____
L-Lysine HCL	0.5	\$2,014.00	\$1.01	_____
L-Threonine				_____
D,L-Methionine				_____
Oats - Steam rolled	474.5	\$392.00	\$186.00	_____
Total Pre Starter 1	1,000.0 kg		\$963.87	_____
Adjusted for weight loss (percentage)		1.25 %	\$975.92	_____
Plus processing cost per tonne		\$5.00	<u>\$980.92</u>	_____
Plus Labour Cost		\$7.00	\$987.92	_____
Pre starter 2				
Wheat	134.5	\$216.00	\$29.05	_____
Barley				_____
Corn				_____
Soybean Meal - 47 %	130.0	\$525.00	\$68.25	_____
Canola Meal - 34%				_____
Peas				_____
Grower Micro Premix	5.0	\$6,850.00	\$34.25	_____
Canola Oil	19.0	\$1,022.50	\$19.43	_____
Whey Powder	125.0	\$537.00	\$67.13	_____
Fish Meal	75.0	\$3,030.00	\$227.25	_____
Plasma				_____
Limestone	12.5	\$121.00	\$1.51	_____
Dical (16% Ca-21% P)	10.0	\$723.00	\$7.23	_____
Salt - 96%	3.5	\$178.00	\$0.62	_____
Phytase	0.5	\$12,941.00	\$6.47	_____
L-Lysine HCL				_____
L-Threonine				_____
D,L-Methionine				_____
Oats - Steam rolled	485.0	\$392.00	\$190.12	_____
Total Pre Starter 2	1,000.0 kg		\$651.31	_____
Adjusted for weight loss (percentage)		1.25 %	\$659.45	_____
Plus processing cost per tonne		\$5.00	<u>\$664.45</u>	_____
Plus Labour Cost		\$7.00	\$671.45	_____

Starter 1

Wheat	405.0	\$216.00	\$87.48	
Barley				
Corn	249.0	\$175.00	\$43.58	
Soybean Meal - 47 %	200.0	\$525.00	\$105.00	
Canola Meal - 34%				
Peas				
Grower Micro Premix	5.0	\$6,850.00	\$34.25	
Canola Oil	11.0	\$1,022.50	\$11.25	
Whey Powder	70.0	\$537.00	\$37.59	
Fish Meal	40.0	\$3,030.00	\$121.20	
Plasma				
Limestone	7.0	\$121.00	\$0.85	
Dical (16% Ca-21% P)	8.0	\$723.00	\$5.78	
Salt - 96%	3.5	\$178.00	\$0.62	
Phytase	0.5	\$12,941.00	\$6.47	
L-Lysine HCL	1.0	\$2,014.00	\$2.01	
L-Threonine				
D,L-Methionine				
Oats - Steam rolled				
Total Starter 1	1,000.0 kg		\$456.08	
Adjusted for weight loss (percentage)		1.25 %	\$461.78	
Plus processing cost per tonne		\$5.00	<u>\$466.78</u>	
Plus Labour Cost		\$7.00	\$473.78	

Starter 2

Wheat	404.0	\$216.00	\$87.26	
Barley	65.0	\$197.00	\$12.81	
Corn	250.0	\$175.00	\$43.75	
Soybean Meal - 47 %	227.0	\$525.00	\$119.18	
Canola Meal - 34%				
Peas				
Grower Micro Premix	5.0	\$6,850.00	\$34.25	
Canola Oil				
Whey Powder				
Fish Meal	25.0	\$3,030.00	\$75.75	
Plasma				
Limestone	11.0	\$121.00	\$1.33	
Dical (16% Ca-21% P)	8.0	\$723.00	\$5.78	
Salt - 96%	3.5	\$178.00	\$0.62	
Phytase	0.5	\$12,941.00	\$6.47	
L-Lysine HCL	1.0	\$2,014.00	\$2.01	
L-Threonine				
D,L-Methionine				
Oats - Steam rolled				
Total Starter 2	1,000.0 kg		\$389.21	
Adjusted for weight loss (percentage)		1.25 %	\$394.08	
Plus processing cost per tonne		\$5.00	<u>\$399.08</u>	
Plus Labour Cost		\$7.00	\$406.08	

Weaner Pig (Nursery) 6-26kg Production Costs Worksheet

A. Operating Costs

	<u>Your Cost</u>
1. Feed Requirements and Costs	
1.01 Pre starter 1 - Purchased Feed	
0.80 kg ration/pig	
x \$1,917.38 /tonne	
÷ <u>1,000</u> kg/tonne	
= \$1.53 /pig sold	
1.011 Pre starter 1 - Home-Mixed Feed	
0.80 kg ration/pig	
x \$987.92 /tonne	
÷ <u>1,000</u> kg/tonne	
= \$0.79 /pig sold	
1.02 Pre starter 2 - Purchased Feed	
4.0 kg ration/pig	
x \$1,386.06 /tonne	
÷ <u>1,000</u> kg/tonne	
= \$5.54 /pig sold	
1.021 Pre starter 2 - Home-Mixed Feed	
4.0 kg ration/pig	
x \$671.45 /tonne	
÷ <u>1,000</u> kg/tonne	
= \$2.69 /pig sold	
1.03 Starter 1 - Purchased Feed	
11.9 kg ration/pig	
x \$1,011.01 /tonne	
÷ <u>1,000</u> kg/tonne	
= \$12.03 /pig sold	
1.031 Starter 1 - Home-Mixed Feed	
11.9 kg ration/pig	
x \$473.78 /tonne	
÷ <u>1,000</u> kg/tonne	
= \$5.64 /pig sold	
1.04 Starter 2 - Purchased Feed	
24.0 kg ration/pig	
x \$764.15 /tonne	
÷ <u>1,000</u> kg/tonne	
= \$18.34 /pig sold	
1.041 Starter 2 - Home-Mixed Feed	
24.0 kg ration/pig	
x \$406.08 /tonne	
÷ <u>1,000</u> kg/tonne	
= \$9.75 /pig sold	
2. Other Operating Costs	
2.01 Weanling Purchase	
\$69.50 \$/cwt average market price	
x <u>55.00</u> % of mkt price weanling formula factor	
= \$38.23 purchase cost	

2.02 Veterinary Medicine & Supplies

	\$2,000	professional services	_____
+	\$98,000	medication	_____
÷	<u>35,512</u>	<u>pigs sold</u>	_____
=	\$2.82	/pig sold	_____

2.03 Maintenance & Repairs

	\$838,800	building & equipment cost	_____
x	0.55	% year repair & maintenance	_____
÷	<u>35,512</u>	<u>pigs sold</u>	_____
=	\$0.13	/pig sold	_____

2.04 Hydro & Propane

	\$17,054	hydro	_____
+	\$26,000	propane	_____
÷	<u>35,512</u>	<u>pigs sold</u>	_____
=	\$1.21	/pig sold	_____

2.05 Insurance

	\$838,800	investment	_____
x	\$0.65	rate/\$100	_____
÷	100	/\$100 capital	_____
÷	<u>35,512</u>	<u>pigs sold</u>	_____
=	\$0.15	/pig sold	_____

	\$286,000	market hogs value	_____
x	\$0.65	/\$100 capital invested	_____
÷	<u>35,512</u>	<u>pigs sold</u>	_____
=	\$0.05	/pig sold	_____

	\$45.00	business interruption coverage/feeder	_____
x	5,200	feeders	_____
x	\$0.65	/\$100 capital invested	_____
÷	<u>35,512</u>	<u>pigs sold</u>	_____
=	\$0.04	/pig sold	_____

Total = \$0.24 /pig sold _____

2.06 Manure Costs

Haulage	2.4	litres/pig/day	_____
x	365	days	_____
x	\$0.002	/litre	_____
x	5,200	pig places	_____
÷	<u>35,512</u>	<u>pigs sold</u>	_____
=	\$0.28	/pig sold	_____

Estimated Nutrient Value	2.4	litres/pig/day	_____
x	365	days/year	_____
x	5,200	average inventory of pigs	_____
±	<u>1,000</u>		_____
=	4,555	# of 1000 litres of manure	_____
Nitrogen	2.62	kg per 1000 litres	_____
x	4,555	# of 1000 litres of manure	_____

x	60	% nutrient value recovery	_____
÷	2.2046	lbs per kg	_____
x	\$0.43	fertilizer value per lb.	_____
±	<u>35,512</u>	<u>pigs sold</u>	_____
=	\$0.04	estimated nutrient value / pig sold	_____
Phosphate			
	0.59	kg per 1000 litres	_____
x	4,555	# of 1000 litres of manure	_____
x	0	% nutrient value recovery	_____
÷	2.2046	lbs per kg	_____
x	\$0.46	fertilizer value per lb.	_____
±	<u>35,512</u>	<u>pigs sold</u>	_____
=	\$0.00	estimated nutrient value / pig sold	_____
Potassium			
	1.37	kg per 1000 litres	_____
x	4,555	# of 1000 litres of manure	_____
x	0	% nutrient value recovery	_____
÷	2.2046	lbs per kg	_____
x	\$0.31	fertilizer value per lb.	_____
±	<u>35,512</u>	<u>pigs sold</u>	_____
=	\$0.00	estimated nutrient value / pig sold	_____

Odour control & Mgmt Fees

	\$3,000	total cost	_____
÷	<u>35,512</u>	<u>pigs sold</u>	_____
=	\$0.08	/pig sold	_____

Total = \$0.32 /pig sold

2.07 Office Supplies

	\$0.30	/pig place	_____
	\$5,200	pig places	_____
÷	<u>35,512</u>	<u>pigs sold</u>	_____
=	\$0.04	/pig sold	_____

2.08 Levy, Marketing & Transportation

	\$3.00	trucking in	_____
+	\$0.19	council levy	_____
±	<u>\$0.05</u>	<u>insurance</u>	_____
=	\$3.24	/pig sold	_____

2.09 Property Taxes

	\$6,945	total taxes	_____
÷	<u>35,512</u>	<u>pigs sold</u>	_____
=	\$0.20	/pig sold	_____

	\$4.35	taxes on land	_____
x	0	acres	_____
÷	<u>35,512</u>	<u>pigs sold</u>	_____
=	\$0.00	/pig sold	_____

Total \$0.20 /pig sold

2.10 Interest on Operating Cost - Purchased Feed:

	\$38.23	weaner cost	_____
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+	\$45.64	subtotal operating	_____
÷	2	average	_____
x	52	days per turn	_____
÷	365	days per year	_____
<u>x</u>	<u>5.75</u>	<u>% operating interest</u>	_____
=	\$0.50	/pig sold	_____
Interest on Operating Cost - Home Mixed Feed:			
	\$38.23	weaner cost	_____
+	\$27.07	subtotal operating	_____
÷	2	average	_____
x	52	days per turn	_____
÷	365	days per year	_____
<u>x</u>	<u>5.75</u>	<u>% operating interest</u>	_____
=	\$0.42	/pig sold	_____

B. Fixed Costs

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

3.01 Buildings - not including feedmill

	\$403,800	building cost (including manure storage)	_____
-	\$33,880	salvage value (building only)	_____
÷	25	years useful life	_____
÷	<u>35,512</u>	<u>pigs sold</u>	_____
=	\$0.42	/pig sold	_____

3.011 Buildings - including feedmill

	\$428,800	building cost (including manure storage)	_____
-	\$36,380	salvage value (building only)	_____
÷	25	years useful life	_____
÷	<u>35,512</u>	<u>pigs sold</u>	_____
=	\$0.44	/pig sold	_____

3.02 Equipment - not including feedmill

	\$425,000	equipment cost	_____
-	\$42,500	salvage value	_____
÷	10	years useful life	_____
÷	<u>35,512</u>	<u>pigs sold</u>	_____
=	\$1.08	/pig sold	_____

3.021 Equipment - including feedmill

	\$475,000	equipment cost	_____
-	\$42,500	salvage value	_____
÷	10	years useful life	_____
÷	<u>35,512</u>	<u>pigs sold</u>	_____
=	\$1.22	/pig sold	_____

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

4.01 Land for barn site

	\$60,000	land value	_____
+	\$30,000	site preparation	_____
x	2.8	% investment rate	_____
÷	<u>35,512</u>	<u>pigs sold</u>	_____
=	\$0.07	/pig sold	_____

Land for manure application

	\$0	land investment	_____
x	2.8	% investment rate	_____
÷	<u>35,512</u>	<u>pigs sold</u>	_____
=	\$0.00	/pig sold	_____
Total	\$0.07	/pig sold	_____

4.02 Buildings - not including feedmill

	\$403,800	building cost (including manure storage)	_____
+	\$33,880	salvage value (building only)	_____
÷	2	average	_____
x	2.8	% investment rate	_____
÷	<u>35,512</u>	<u>pigs sold</u>	_____
=	\$0.17	/pig sold	_____

4.021 Buildings - including feedmill

	\$428,800	building cost (including manure storage)	_____
+	\$36,380	salvage value (building only)	_____
÷	2	average	_____
x	2.8	% investment rate	_____
÷	<u>35,512</u>	<u>pigs sold</u>	_____
=	\$0.18	/pig sold	_____

4.03 Equipment - not including feedmill

	\$425,000	equipment cost	_____
+	\$42,500	salvage value	_____
÷	2	average	_____
x	2.8	% investment rate	_____
÷	<u>35,512</u>	<u>pigs sold</u>	_____
=	\$0.18	/pig sold	_____

4.031 Equipment - including feedmill

	\$475,000	equipment cost	_____
+	\$47,500	salvage value	_____
÷	2	average	_____
x	2.8	% investment rate	_____
÷	<u>35,512</u>	<u>pigs sold</u>	_____
=	\$0.20	/pig sold	_____

C. Labour

	48.0	hours/week	_____
x	52	weeks/year	_____
x	\$22.00	/hour	_____
÷	<u>35,512</u>	<u>pigs sold</u>	_____
=	\$1.55	/pig sold	_____

Return on Assets (ROA)

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

Total Assets

Definition: Total Assets includes the buildings, equipment, land, manure storage and breeding stock valued at replacement cost, plus the value of market livestock on inventory.

Summary of Home Mixed Feed Ingredients Used

	Total pigs sold		35,512	
	Total per Year (tonnes)	Total per Month (tonnes)	Total per Pig (kgs)	Total per Pig (lbs)
Wheat	551.0	45.92	15.5	34.2
Barley	56.8	4.73	1.6	3.5
Corn	326.3	27.19	9.2	20.3
Soybean Meal - 47 %	307.4	25.61	8.7	19.1
Canola Meal - 34%	0.0	0.00	0.0	0.0
Peas	0.0	0.00	0.0	0.0
Grower Micro Premix	7.4	0.62	0.2	0.5
Canola Oil	8.3	0.69	0.2	0.5
Whey Powder	52.0	4.34	1.5	3.2
Fish Meal	51.9	4.32	1.5	3.2
Plasma	1.7	0.14	0.0	0.1
Limestone	14.8	1.24	0.4	0.9
Dical (16% Ca-21% P)	12.2	1.02	0.3	0.8
Salt - 96%	5.2	0.43	0.1	0.3
Phytase	0.7	0.06	0.0	0.0
L-Lysine HCL	1.3	0.11	0.0	0.1
L-Threonine	0.0	0.00	0.0	0.0
D,L-Methionine	0.0	0.00	0.0	0.0
Oats - Steam rolled	84.4	7.04	2.4	5.2
Total	1,481.5	123.5	41.7	92.0

Summary of Purchased Feed Ingredients Used

	Total per Pig Mkt (kgs)	Total per Year (tonnes)	Total per Month (tonnes)	Total per Pig Mkt (lbs)
Pre starter 1	0.8	29.1	2.4	1.8
Pre starter 2	4.1	145.6	12.1	9.0
Starter 1	12.2	433.2	36.1	26.9
Starter 2	24.6	873.6	72.8	54.2
Total	41.7	1,481.5	123.5	92.0
Total	1,523.2	1,604.9	165.2	183.9

Created and maintained by [Manitoba Agriculture Farm Management](#) September, 2018

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