
2023/2024 Cost of Production

Swine Farrow-Wean to 6kg



Guidelines For Estimating
Swine Farrow-Wean to 6 kg Costs
Based On 600 Sows 16,422 Pigs Sold

Date: April, 2023

This guide is designed to provide you with planning information and a format for calculating costs of production of a swine farrow to 6kg enterprise in Manitoba. This operation is intended to represent the first stage of a three stage 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:



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

Contact Us

For more information, contact a Farm Management Specialist.

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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 a Farm Management Specialist.

Farrow-Wean to 6 kg Pig Cost of Production

The following farrow wean to 6 kg 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 \$80 per acre, of the estimated 84 to 130 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.

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 formulation

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 farrow wean 6 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.

600 Sow Farrow-Wean to 6kg Cost of Production Summary - April, 2023

	Purchased Feed			Home-Mixed Feed			Your Cost
	\$/Pig Sold	\$/Sow	Total Cost	\$/Pig Sold	\$/Sow	Total Cost	
A. Operating Costs							
1. Feed Costs:							
1.01 Sow Lactation Ration	\$7.52	\$205.82	\$123,493	\$5.83	\$159.57	\$95,740	_____
1.02 Sow Gestation Ration	\$18.99	\$519.76	\$311,854	\$14.58	\$399.05	\$239,433	_____
1.03 Boar Ration	\$0.11	\$3.01	\$1,806	\$0.08	\$2.19	\$1,314	_____
1.04 Creep Feed	<u>\$1.17</u>	<u>\$32.02</u>	<u>\$19,214</u>	<u>\$0.64</u>	<u>\$17.52</u>	<u>\$10,510</u>	_____
Total Feed Cost	\$27.79	\$760.61	\$456,367	\$21.13	\$578.33	\$346,997	_____
2. Other Operating Costs:							
2.01 Veterinary Medicine & Supplies:	\$1.21	\$33.12	\$19,871	\$1.21	\$33.12	\$19,871	_____
2.02 Maintenance & Repairs	\$1.87	\$51.18	\$30,709	\$1.87	\$51.18	\$30,709	_____
2.03 Hydro & Propane	\$3.78	\$103.59	\$62,155	\$3.78	\$103.59	\$62,155	_____
2.04 Insurance	\$1.97	\$54.00	\$32,400	\$1.97	\$54.00	\$32,400	_____
2.05 Manure Costs	\$0.93	\$25.46	\$15,274	\$0.93	\$25.46	\$15,274	_____
2.06 Office Supplies	\$0.07	\$2.00	\$1,200	\$0.07	\$2.00	\$1,200	_____
2.07 Marketing & Transport.	\$3.69	\$101.00	\$60,597	\$3.69	\$101.00	\$60,597	_____
2.08 Herd Replacement	\$3.55	\$97.12	\$58,272	\$3.55	\$97.12	\$58,272	_____
2.09 Artificial Insemination	\$2.10	\$57.48	\$34,485	\$2.10	\$57.48	\$34,485	_____
2.10 Property Tax	<u>\$0.46</u>	<u>\$12.50</u>	<u>\$7,500</u>	<u>\$0.46</u>	<u>\$12.50</u>	<u>\$7,500</u>	_____
Subtotal Operating Costs	\$47.43	\$1,298.06	\$778,830	\$40.77	\$1,115.78	\$669,460	_____
2.11 Interest on Operating Costs	<u>\$0.85</u>	<u>\$23.18</u>	<u>\$13,908</u>	<u>0.73</u>	<u>\$19.93</u>	<u>\$11,955</u>	_____
Total Operating Costs	\$48.27	\$1,321.24	\$792,738	\$41.49	\$1,135.71	\$681,415	_____
B. Fixed Costs							
3. Depreciation:							
3.01 Buildings & Manure Storage	\$3.46	\$94.70	\$56,820	\$3.55	\$97.16	\$58,298	_____
3.02 Equipment	<u>\$3.53</u>	<u>\$96.62</u>	<u>\$57,970</u>	<u>\$3.86</u>	<u>\$105.65</u>	<u>\$63,389</u>	_____
Total Depreciation Cost	\$6.99	\$191.32	\$114,790	\$7.41	\$202.81	\$121,687	_____
4. Investment:							
4.01 Land Cost	\$0.24	\$6.69	\$4,015	\$0.24	\$6.69	\$4,015	_____
4.02 Buildings & Manure Storage	\$1.42	\$38.94	\$23,364	\$1.46	\$40.08	\$24,045	_____
4.03 Equipment	\$0.59	\$16.24	\$9,745	\$0.65	\$17.75	\$10,651	_____
4.04 Breeding Herd	<u>\$0.37</u>	<u>\$10.11</u>	<u>\$6,063</u>	<u>\$0.37</u>	<u>\$10.11</u>	<u>\$6,063</u>	_____
Total Investment Cost	\$2.63	\$71.98	\$43,187	\$2.73	\$74.63	\$44,774	_____
Total Fixed Costs	\$9.62	\$263.30	\$157,977	\$10.14	\$277.44	\$166,461	_____
C. Labour							
Wages, benefits and hired manager	\$10.26	\$280.82	\$168,490	\$10.26	\$280.82	\$168,490	_____
Total Cost of Production	\$68.15	\$1,865.36	\$1,119,205	\$61.89	\$1,693.97	\$1,016,366	_____
Profitability and Breakeven Analysis							
Estimated Farmgate	<u>\$/Pig</u>	<u>\$/Sow</u>	<u>Total</u>	<u>\$/Pig</u>	<u>\$/Sow</u>	<u>Total</u>	
Market Price per weanling	\$56.00	\$1,532.72	\$919,632	\$56.00	\$1,532.72	\$919,632	_____
Land rental per head sold	<u>\$0.00</u>	<u>\$0.00</u>	<u>\$0</u>	<u>\$0.00</u>	<u>\$0.00</u>	<u>\$0</u>	_____
Gross Revenue / hog	\$56.00	\$1,532.72	\$919,632	\$56.00	\$1,532.72	\$919,632	_____
Marginal Returns							
Over Operating Costs	\$7.73	\$211.48	\$126,894	\$14.51	\$397.01	\$238,217	_____
Over Operating & Labour Costs	(\$2.53)	(\$69.34)	-\$41,596	\$4.25	\$116.19	\$69,727	_____
Over Total Costs (Net Profit)	(\$12.15)	(\$332.64)	(\$199,573)	(\$5.89)	(\$161.25)	(\$96,734)	_____
Operating Expense Ratio	86.2%			74.1%			_____
Breakeven Selling Price	<u>\$/Pig</u>			<u>\$/Pig</u>			
Operating Costs	\$48.27			\$41.49			_____
Operating & Labour Costs	\$58.53			\$51.75			_____
Total Costs	\$68.15			\$61.89			_____
Return On Assets (ROA)	(5.57%)			(1.50%)			_____

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	\$27.79	\$21.13
Other Operating Costs	<u>\$20.48</u>	<u>\$20.36</u>
Subtotal	\$48.27	\$41.49
B. Fixed Costs	\$9.62	\$10.14
C. Labour	<u>\$10.26</u>	<u>\$10.26</u>
Total Costs	\$68.15	\$61.89
Estimated Farmgate		
Price (\$ per weanling)	\$56.00	\$56.00
Weanlings sold per sow	27.37	27.37

	Up	Down
Percent Market Price Variation	10.0%	10.0%
Percent Feed Cost Variation	10.0%	5.0%
Weanlings Sold Per Sow	0.50	2.50

Higher Price (\$ per weanling)	\$61.60	\$61.60
Lower Price (\$ per weanling)	\$50.40	\$50.40
Higher Feed Cost	\$30.57	\$23.24
Lower Feed Cost	\$26.40	\$20.07
Higher Weanlings Sold Per Sow	27.87	27.87
Lower Weanlings Sold Per Sow	24.87	24.87

Higher Margin Scenario - Price Up 10%, Feed Price Down 5% and Weanlings Sold Per Sow Up 0.5

Operating Costs	\$46.41	\$40.08
Total Costs	\$66.29	\$60.47
Gross Revenue / hog	\$61.60	\$61.60
Marginal Returns		
Over Operating Costs	\$15.19	\$21.52
Over Operating & Labour Costs	\$4.93	\$11.26
Over Total Costs (Net Profit)	(\$4.69)	\$1.13
Operating Expense Ratio	75.3%	65.1%
Return on Asset (ROA)	(0.78%)	2.84%

Lower Margin Scenario - Price Down 10%, Feed Price Up 10% and Weanlings Sold Per Sow Down 2.5

Operating Costs	\$54.12	\$45.94
Total Costs	\$74.00	\$66.34
Gross Revenue / hog	\$50.40	\$50.40
Marginal Returns		
Over Operating Costs	(\$3.72)	\$4.46
Over Operating & Labour Costs	(\$13.98)	(\$5.80)
Over Total Costs (Net Profit)	(\$23.60)	(\$15.94)
Operating Expense Ratio	107.4%	91.2%
Return on Asset (ROA)	(12.91%)	(7.68%)

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Farrow to 6kg Pig Production Costs

1. This input table outlines the production assumptions used.
2. Buildings and equipment are valued at new cost.
3. Manure haulage is contracted out.
4. Gilts are purchased for herd replacement.

Weaning market price / head **\$56.00**

Indicators of Productivity

Sows	600
Boars	3
Litters/Sow/Year	2.38
Average Weaning Age (days)	21
Average Born Alive per Litter	13.50
Percent Pre-Weaning Mortality	12.5
Percent Post-Weaning Culls	2.4

Herd Profile	<u>Total</u>	<u>/Sow</u>	<u>/Litter</u>	<u>%Mortality</u>
Sows	600			
Boars	3			
Litters	1,425	2.38		
Pigs Born Alive	19,238	32.06	13.50	
Pigs Died, Pre-Weaning	2,405	4.01	1.69	12.5
Pigs Weaned	16,833	28.06	11.81	
Pigs Culled	411	0.69	0.29	2.4
Weaner Pigs Sold	16,422	27.37	11.52	

Feed Requirements and Costs

		<u>Purchased</u>	<u>Home-Mixed</u>
Sow Gestation Ration	3.0 kg/day	\$549.75	\$422.22
Sow Lactation Ration	6.5 kg/day	\$635.00	\$491.93
Boar Ration	3.0 kg/day	\$549.75	\$422.22
Creep Feed	0.5 kg/pig	\$2,000.00	\$1,093.41

Labour

Total Hours per 7-day week **120.0** hours/week
Wage (includes benefits & hired manager) **\$27.00** /hour

Sow Barn Capital Investment

Buildings	<u>Sq.Ft. ¹</u>	<u>\$/Sq.Ft.</u>	<u>Total</u>	<u>/Sow</u>	<u>Your Cost</u>
Gestation	16,200	\$64.00	\$1,036,800	\$1,728.00	_____
Farrowing	7,584	\$43.00	\$326,100	\$543.50	_____
Office & Loading	300	\$50.00	\$15,000	\$25.00	_____
Standby Generator			\$25,000	\$41.67	_____
Feed Mill (building only)			\$45,000	\$75.00	_____
Total Building Cost			\$1,447,900	\$2,338.17	_____

Equipment ¹

Gestation			\$26.50	\$429,300	\$715.50	_____
Farrowing			\$26.50	\$200,968	\$334.95	_____
Fire Alarm System				\$3,000	\$5.00	_____
Feed Bins (4 bins)				\$11,000	\$18.33	_____
Feed Mill (equipment only)				\$60,000	\$100.00	_____
Total Equipment Cost				\$704,268	\$1,073.78	_____
Total Buildings and Equipment Cost				\$2,152,168	\$3,411.95	_____
Breeding Stock						
Value of Replacement Sow	\$350	/sow		\$210,000	\$350.00	_____
Value of Replacement Boar	\$3,500	/boar		\$10,500	\$17.50	_____
Total Breeding Stock Cost				\$220,500	\$367.50	_____
Land Value						
Land Investment	40	acres @	\$2,750	\$110,000	\$183.33	_____
Land Investment	0	acres @	\$2,750	\$0	\$0.00	_____
Other Costs						
Site Preparation				\$36,000	\$60.00	_____
Manure Storage				\$120,000	\$200.00	_____
Total Other Costs				\$156,000	\$260.00	_____
Total Capital Investment				\$2,638,668	\$4,397.78	_____

¹ 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.

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

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 %

Veterinary Costs: Professional Services

\$9.00 /sow

Medication

\$24.00 /sow

Maintenance & Repair

1.50 % of Total Capital Investment

Hydro & Propane

Hydro rate **\$0.09234** per kwhr

Hydro usage **267,000** kwhr

Propane rate **\$0.75** total propane

Propane usage **50,000** litres

Insurance

Buildings & equipment **\$0.78** /\$100 Capital Invested

Breeding Stock & weaners **\$0.88** /\$100 Capital Invested

Business Interruption **\$0.78** /\$100 Capital Invested

Business Interruption based on **\$1,200** /Sow

Weaner Value **\$56.00** /Weaner

Manure Costs:	Storage volume	22.7 litres/sow/day ³
	Haulage Cost	\$0.0029 /litre \$0.013 /gallon

	Odour control (barley straw)	\$0 total cost
	Manure Management Fee	\$3,000 total cost

Manure nutrient content	nutrient kg/1000 litres	fertilizer value \$/lb	% nutrient value cost recovery / sale
Total Nitrogen	2.09	0.770	60
Phosphate (P2O5)	0.56	0.890	0
Potassium	0.89	0.600	0

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

Office Supplies	Estimated rate per sow	\$2.00 /sow
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Marketing & Transportation	\$3.50 /weaner pig sold
Board Levy	\$0.19 /weaner pig sold

Breeding Herd Replacement:	42.00 % of sows replaced per year
Cull Sow Weight	180.0 kg
Cull Sow Price (live weight)	\$77.3 /100kg
Cull Sow Price (dress weight)	\$96.60 /100kg
Value of Replacement Sow	\$350 /sow

Boar Replacement Rate:	50.00 % of boars replaced per year
Cull Boar Weight	225.0 kg
Cull Boar Price (live weight)	\$55.18 /100kg
Cull Boar Price (dress weight)	\$68.97 /100kg
Value of Replacement Boar	\$3,500 /boar

Breeding Costs	
Number of services/sow	2.2
Cost/dose (semen)	\$11.00

Property Tax:	
Farrow-weanling barn & land	\$7,500 /year
Land	\$10.00 /acre

Land Value	
Number of acres	40
Number of acres rented out	0
Rental rate (income)	\$80
Land value per acre	\$2,750

Operating Loan Interest Rate	8.50 %
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³ 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	\$370	_____
Barley	\$320	_____
Corn	\$355	_____
Soybean Meal	\$665	_____
Canola Meal	\$425	_____
Peas	\$390	_____
Sow Micro	\$6,000	_____
Canola Oil	\$2,400	_____
Whey Powder	\$1,365	_____
Fish Meal	\$3,364	_____
Plasma	\$5,720	_____
Limestone	\$204	_____
Dical (16% Ca-21% P)	\$1,544	_____
Salt - 96%	\$262	_____
Phytase	\$14,500	_____
L-Lysine HCL	\$2,249	_____
L-Threonine	\$2,816	_____
DL-Methionine	\$3,850	_____
Oats - groats	\$375	_____
Processing Cost		_____
(Hydro,repairs/maintenance & insurance)	\$10.00	_____
Percent Weight loss due to processing	1.25 %	_____
Labour Cost	\$10.00	_____

Ration Formulas	Dry Sow (kg)	Nursing Sow (kg)	Boar Ration (kg)	Creep Ration (kg)
Wheat	259.00	568.70	233.64	0.00
Barley	539.00	200.00	539.00	0.00
Corn	0.00	0.00	0.00	139.75
Soybean Meal	0.00	196.00	0.00	116.59
Canola Meal	80.00	0.00	102.00	0.00
Peas	91.00	0.00	91.00	0.00
Sow Micro	5.00	5.00	5.00	5.00
Canola Oil	0.00	0.00	0.00	20.00
Whey Powder	0.00	0.00	0.00	100.00
Fish Meal	0.00	0.00	0.00	60.00
Plasma	0.00	0.00	0.00	58.00
Limestone	10.00	12.00	12.00	12.23
Dical (16% Ca-21% P)	11.00	12.00	12.00	9.43
Salt - 96%	3.50	5.00	3.50	3.50
Phytase	0.50	0.50	0.50	0.00
L-Lysine HCL	1.00	0.80	1.36	0.50
L-Threonine	0.00	0.00	0.00	0.00
DL-Methionine	0.00	0.00	0.00	0.00
Oats - groats	0.00	0.00	0.00	475.00
TOTAL (kg)	1,000.00	1,000.00	1,000.00	1,000.00

Total Feed per Sow	Dry Sow Ration (tonnes)	Nursing Sow Ration (kg/sow)	Boar Ration (kg)	Creep Ration (kg)	Total (kg)
Wheat	146.91	110.62	0.77	0.00	258.30
Barley	305.73	38.90	1.77	0.00	346.41
Corn	0.00	0.00	0.00	1.18	1.18
Soybean Meal	0.00	38.12	0.00	0.98	39.11
Canola Meal	45.38	0.00	0.34	0.00	45.71
Peas	51.62	0.00	0.30	0.00	51.92
Sow Micro	2.84	0.97	0.02	0.04	3.87
Canola Oil	0.00	0.00	0.00	0.17	0.17
Whey Powder	0.00	0.00	0.00	0.84	0.84
Fish Meal	0.00	0.00	0.00	0.50	0.50
Plasma	0.00	0.00	0.00	0.49	0.49
Limestone	5.67	2.33	0.04	0.10	8.15
Dical (16% Ca-21% P)	6.24	2.33	0.04	0.08	8.69
Salt - 96%	1.99	0.97	0.01	0.03	3.00
Phytase	0.28	0.10	0.00	0.00	0.38
L-Lysine HCL	0.57	0.16	0.00	0.00	0.73
L-Threonine	0.00	0.00	0.00	0.00	0.00
DL-Methionine	0.00	0.00	0.00	0.00	0.00
Oats - groats	0.00	0.00	0.00	4.00	4.00
Total Ration (kg/sow/year)	567.23	194.51	3.29	8.42	773.44

Feed Requirement and Cost Summary

	Amount	Ingredient Price	Ration Cost	Your Cost
Sow Gestation & Boar Ration:	(kg)	(\$ /tonne)	(\$ /tonne)	
Wheat	259.0	\$370.00	\$95.83	
Barley	539.0	\$320.00	\$172.48	
Corn				
Soybean Meal				
Canola Meal	80.0	\$425.00	\$34.00	
Peas	91.0	\$390.00	\$35.49	
Sow Micro	5.0	\$6,000.00	\$30.00	
Canola Oil				
Whey Powder				
Fish Meal				
Plasma				
Limestone	10.0	\$203.95	\$2.04	
Dical (16% Ca-21% P)	11.0	\$1,544.23	\$16.99	
Salt - 96%	3.5	\$261.90	\$0.92	
Phytase	0.5	\$14,500.00	\$7.25	
L-Lysine HCL	1.0	\$2,248.50	\$2.25	
L-Threonine				
DL-Methionine				
Oats - groats				
Total Dry Sow	1,000.0 kg		\$397.25	
Adjusted For Weight Loss		1.25 %	\$402.22	
Plus Processing Cost		\$10.00	\$412.22	
Plus Labour Cost		\$10.00	\$422.22	
Sow Lactation:				
Wheat	568.7	\$370.00	\$210.42	
Barley	200.0	\$320.00	\$64.00	
Corn				
Soybean Meal	196.0	\$665.00	\$130.34	
Canola Meal				
Peas				
Sow Micro	5.0	\$6,000.00	\$30.00	
Canola Oil				
Whey Powder				
Fish Meal				
Plasma				
Limestone	12.0	\$203.95	\$2.45	
Dical (16% Ca-21% P)	12.0	\$1,544.23	\$18.53	
Salt - 96%	5.0	\$261.90	\$1.31	
Phytase	0.5	\$14,500.00	\$7.25	
L-Lysine HCL	0.8	\$2,248.50	\$1.80	
L-Threonine				
DL-Methionine				
Oats - groats				
Total Nursing Sow	1,000.0 kg		\$466.10	
Adjusted For Weight Loss		1.25 %	\$471.93	
Plus Processing Cost		\$10.00	\$481.93	
Plus Labour Cost		\$10.00	\$491.93	

Creep Ration:

Wheat				_____
Barley				_____
Corn	139.8	\$355.00	\$49.61	_____
Soybean Meal	116.6	\$665.00	\$77.53	_____
Canola Meal				_____
Peas				_____
Sow Micro	5.0	\$6,000.00	\$30.00	_____
Canola Oil	20.0	\$2,400.00	\$48.00	_____
Whey Powder	100.0	\$1,364.60	\$136.46	_____
Fish Meal	60.0	\$3,364.40	\$201.86	_____
Plasma	58.0	\$5,720.00	\$331.76	_____
Limestone	12.2	\$203.95	\$2.49	_____
Dical (16% Ca-21% P)	9.4	\$1,544.23	\$14.56	_____
Salt - 96%	3.5	\$261.90	\$0.92	_____
Phytase				_____
L-Lysine HCL	0.5	\$2,248.50	\$1.12	_____
L-Threonine				_____
DL-Methionine				_____
Oats - groats	475.0	\$375.00	\$178.13	_____
Total Creep	1,000.0 kg		\$1,072.44	_____
Adjusted For Weight Loss		1.25 %	\$1,073.41	_____
Plus Processing Cost		\$10.00	<u>\$1,083.41</u>	_____
Plus Labour Cost		\$10.00	\$1,093.41	_____

Production Cost Worksheet

A. Operating Costs

Your Cost

1. Feed Requirements and Costs

1.01 Sow Lactation Ration - Purchased Feeds

	21	days average weaning age	
x	2.38	litters/sow/year	_____
=	49.9	days lactation	_____
x	6.5	kg ration/day	_____
x	\$635.00	/tonne ration	_____
÷	1,000	kg/tonne	_____
÷	<u>27.37</u>	<u>pigs/sow</u>	_____
=	\$7.52	/pig sold	_____

1.02 Sow Gestation Ration - Purchased Feeds

	365	days/year	
-	49.9	days lactation	_____
=	315.1	days gestation	_____
x	3.0	kg ration/day	_____
x	\$549.75	/tonne ration	_____
÷	1,000	kg/tonne	_____
÷	<u>27.37</u>	<u>pigs/sow</u>	_____
=	\$18.99	/pig sold	_____

1.03 Boar Ration - Purchased Feeds

	365	days	
x	3.0	kg ration/day	_____
x	\$549.75	/tonne ration	_____
÷	1,000	kg/tonne	_____
x	3	boars	_____
÷	600	sows	_____
÷	<u>27.37</u>	<u>pigs/sow</u>	_____
=	\$0.11	/pig sold	_____

1.04 Creep Feed - Purchased Feeds

	0.5	kg ration/pig	
x	\$2,000.00	/tonne of creep feed	_____
÷	1,000	kg/tonne	_____
x	32.06	pigs born alive/sow/year	_____
÷	<u>27.37</u>	<u>pigs/sow</u>	_____
=	\$1.17	/pig sold	_____

1.05 Sow Lactation Ration - Home Mixed Feeds

	21	days average weaning age	
x	2.38	litters/sow/year	_____
=	49.9	days lactation	_____
x	6.5	kg ration/day	_____
x	\$491.93	/tonne ration	_____
÷	1,000	kg/tonne	_____
÷	<u>27.37</u>	<u>pigs/sow</u>	_____
=	\$5.83	/pig sold	_____

1.06 Sow Gestation Ration - Home Mixed Feeds

	365	days/year	
-	49.9	days lactation	_____
=	315.1	days gestation	_____
x	3.0	kg ration/day	_____
x	\$422.22	/tonne ration	_____

÷	1,000	kg/tonne	_____
÷	<u>27.37</u>	<u>pigs/sow</u>	_____
=	\$14.58	/pig sold	_____

1.07 Boar Ration - Home Mixed Feeds

	365	days	_____
x	3.0	kg ration/day	_____
x	\$422.22	/tonne ration	_____
÷	1,000	kg/tonne	_____
x	3	boars	_____
÷	600	sows	_____
÷	<u>27.37</u>	<u>pigs/sow</u>	_____
=	\$0.08	/pig sold	_____

1.08 Creep Feed - Home Mixed Feeds

	0.5	kg ration/pig	_____
x	\$1,093.41	/tonne of creep feed	_____
÷	1,000	kg/tonne	_____
x	32.06	pigs born alive/sow/year	_____
÷	<u>27.37</u>	<u>pigs/sow</u>	_____
=	\$0.64	/pig sold	_____

2. Other Operating Costs**2.01 Veterinary Medicine & Supplies**

	\$9.00	/sow professional services	_____
+	\$24.00	/sow medication	_____
÷	<u>27.37</u>	<u>pigs/sow</u>	_____
=	\$1.21	/pig sold	_____

2.02 Maintenance & Repairs

	\$3,411.95	/sow building & equipment cost	_____
x	1.50	% repair & maintenance	_____
÷	<u>27.37</u>	<u>pigs/sow</u>	_____
=	\$1.87	/pig sold	_____

2.03 Hydro & Propane

	\$24,655	hydro	_____
+	\$37,500	propane	_____
÷	<u>16,422</u>	<u>pigs marketed</u>	_____
=	\$3.78	/pig sold	_____

2.04 Insurance

	\$2,152,168	buildings & equipment	_____
x	\$0.78	/\$100 capital	_____
÷	100		_____
÷	<u>16,422</u>	<u>pigs marketed</u>	_____
=	\$1.02	/pig sold	_____
	\$220,500	breeding stock	_____
+	\$919,632	weaners	_____
x	\$0.88	/\$100 capital	_____
÷	<u>16,422</u>	<u>pigs marketed</u>	_____
=	\$0.61	/pig sold	_____
	\$1,200	business interruption coverage/sow	_____
x	600	sows	_____
x	\$0.78	/\$100 capital invested	_____
÷	<u>16,422</u>	<u>pigs sold</u>	_____
=	\$0.34	/pig sold	_____

=	\$1.97	/pig sold	_____
2.05 Manure Costs			
Haulage	22.7	litres/sow/day	_____
x	\$0.003	/litre	_____
x	365	days	_____
÷	<u>27.37</u>	pigs/sow	_____
=	\$0.88	/pig sold	_____
Estimated Nutrient Value			
	22.7	litres/sow/day	_____
x	365	days/year	_____
x	600	average inventory of sows	_____
±	<u>1,000</u>		_____
=	4,971	# of 1000 litres of manure	_____
Nitrogen			
	2.09	kg per 1000 litres	_____
x	4,971	# of 1000 litres of manure	_____
x	60	% nutrient value recovery	_____
÷	2.2046	lbs per kg	_____
x	\$0.77	fertilizer value per lb.	_____
÷	<u>16.422</u>	pigs sold	_____
=	\$0.13	estimated nutrient value / pig sold	_____
Phosphate			
	0.56	kg per 1000 litres	_____
x	4,971	# of 1000 litres of manure	_____
x	0	% nutrient value recovery	_____
÷	2.2046	lbs per kg	_____
x	\$0.89	fertilizer value per lb.	_____
÷	<u>16.422</u>	pigs sold	_____
=	\$0.00	estimated nutrient value / pig sold	_____
Potassium			
	0.89	kg per 1000 litres	_____
x	4,971	# of 1000 litres of manure	_____
x	0	% nutrient value recovery	_____
÷	2.2046	lbs per kg	_____
x	\$0.60	fertilizer value per lb.	_____
÷	<u>16.422</u>	pigs sold	_____
=	\$0.00	estimated nutrient value / pig sold	_____
Odour control & Mgmt Fees			
	\$3,000	total costs	_____
÷	<u>16.422</u>	pigs marketed	_____
=	\$0.18	/pig sold	_____
Total	=	\$0.93	/pig sold
2.06 Office Supplies			
x	\$2.00	\$/sow	_____
÷	<u>27.37</u>	pigs/sow	_____
=	\$0.07	/pig sold	_____
2.07 Marketing & Transportation & Board Levy			
	\$3.50	marketing & transportation	_____
±	<u>\$0.19</u>	board levy	_____
=	\$3.69	/pig sold	_____
2.08 Herd Replacement			
Sow	180.0	kg/sow (cull weight)	_____
x	\$77.28	/100 kg live	_____
=	\$139.10	/sow value of cull	_____

	\$350.00	/sow value of replacement	_____
-	\$139.10	/sow value of cull	_____
=	\$210.90	net replacement cost	_____
x	42.00	% sow culling rate	_____
÷	<u>27.37</u>	<u>pigs/sow</u>	_____
=	\$3.24	/pig sold	_____
Boar	225.0	kg/boar (cull weight)	_____
x	\$55.18	/100 kg live	_____
=	\$124.15	/boar value of cull	_____
	\$3,500.00	/boar value of replacement	_____
-	\$124.15	/boar value of cull	_____
=	\$3,375.85	net replacement cost	_____
x	50.00	% boar culling rate	_____
x	3	number of boars	_____
÷	600	number of sows	_____
÷	<u>27.37</u>	<u>pigs/sow</u>	_____
=	\$0.31	/pig sold	_____
Total	\$3.55	/pig sold	_____

2.09 Artificial Insemination

	2.2	Number of services	_____
x	\$11.00	Cost/dose (Semen)	_____
x	600	Sows	_____
x	2.4	Litters/sow	_____
÷	<u>16,422</u>	<u>Pigs sold</u>	_____
=	\$2.10	/pig sold	_____

2.10 Property Taxes:

	\$7,500	total taxes	_____
÷	<u>16,422</u>	<u>pigs marketed</u>	_____
=	\$0.46	/pig sold	_____
	\$10.00	taxes on land	_____
x	0	acres	_____
÷	<u>16,422</u>	<u>pigs sold</u>	_____
=	\$0.00	/pig sold	_____

Total \$0.46 /pig sold

2.11 Interest on Operating Cost:

Subtotal Operating Cost x Farrow-to-Farrow Period x % Interest

	365		2
Purchased Feeds			
	365	days per year	_____
÷	2.38	litters/sow	_____
=	153	days farrow-to-farrow	_____
	\$47.43	subtotal operating	_____
x	153	days farrow to farrow	_____
÷	365	days per year	_____
x	8.5	% operating interest rate	_____
÷	<u>2</u>	<u>average</u>	_____
=	\$0.85	/pig sold	_____
Purchased Feeds			
	365	days per year	_____
÷	2.38	litters/sow	_____

=	153	days farrow-to-farrow	_____
	\$40.77	subtotal operating	_____
x	153	days farrow to farrow	_____
÷	365	days per year	_____
x	8.5	% operating interest rate	_____
÷	<u>2</u>	average	_____
=	\$0.73	/pig sold	_____

B. Fixed Costs

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

3.01 Buildings - not including feedmill

	\$1,558,900	building cost (including earthen manure storage)	_____
-	\$140,290	salvage value (building only)	_____
÷	25	years useful life	_____
÷	<u>16,422</u>	<u>pigs marketed</u>	_____
=	\$3.46	/pig sold	_____

3.011 Buildings - including feedmill

	\$1,603,900	building cost (including earthen manure storage)	_____
-	\$144,790	salvage value (building only)	_____
÷	25	years useful life	_____
÷	<u>16,422</u>	<u>pigs marketed</u>	_____
=	\$3.55	/pig sold	_____

3.02 Equipment - not including feedmill

	\$644,268	equipment cost	_____
-	\$64,427	salvage value	_____
÷	10	years useful life	_____
÷	<u>16,422</u>	<u>pigs marketed</u>	_____
=	\$3.53	/pig sold	_____

3.021 Equipment - including feedmill

	\$704,268	equipment cost	_____
-	\$70,427	salvage value	_____
÷	10	years useful life	_____
÷	<u>16,422</u>	<u>pigs marketed</u>	_____
=	\$3.86	/pig sold	_____

4. Investment:

$\frac{(\text{Original Cost} + \text{Salvage Value})}{2} \times \text{Investment Rate}$

4.01 Land for Barn site

	\$110,000	land investment	_____
+	\$36,000	site preparation	_____
x	2.8	% investment rate	_____
÷	<u>16,422</u>	<u>pigs marketed</u>	_____
=	\$0.24	/pig sold	_____

Land for manure application

	\$0	land investment	_____
x	2.8	% investment rate	_____
÷	<u>16,422</u>	<u>pigs sold</u>	_____
=	\$0.00	/pig sold	_____

Total	\$0.24	/pig sold	_____
4.02 Buildings - not including feedmill			
	\$1,558,900	building cost (including earthen manure storage)	_____
+	\$140,290	salvage value (building only)	_____
÷	2	average	_____
x	2.8	% investment rate	_____
÷	<u>16.422</u>	<u>pigs marketed</u>	_____
=	\$1.42	/pig sold	_____
4.021 Buildings - including feedmill			
	\$1,603,900	building cost (including earthen manure storage)	_____
+	\$144,790	salvage value (building only)	_____
÷	2	average	_____
x	2.8	% investment rate	_____
÷	<u>16.422</u>	<u>pigs marketed</u>	_____
=	\$1.46	/pig sold	_____
4.03 Equipment - not including feedmill			
	\$644,268	equipment cost	_____
+	\$64,427	salvage value	_____
÷	2	average	_____
x	2.8	% investment rate	_____
÷	<u>16.422</u>	<u>pigs marketed</u>	_____
=	\$0.59	/pig sold	_____
4.031 Equipment - including feedmill			
	\$704,268	equipment cost	_____
+	\$70,427	salvage value	_____
÷	2	average	_____
x	2.8	% investment rate	_____
÷	<u>16.422</u>	<u>pigs marketed</u>	_____
=	\$0.65	/pig sold	_____
4.04 Breeding Stock			
	\$220,500	value of breeding stock	_____
x	2.8	% investment rate	_____
÷	<u>16.422</u>	<u>pigs marketed</u>	_____
=	\$0.37	/pig sold	_____
C. Labour			
	120.0	hours/week	_____
x	52	weeks/year	_____
x	\$27.00	/hour	_____
÷	600	sows	_____
÷	<u>27.37</u>	<u>pigs/sow</u>	_____
=	\$10.26	/pig sold	_____

$$\text{Return On Assets (ROA)} = \frac{\text{Net Income} + \text{Operating Interest} + \text{Investment Interest} - \text{Value of Unpaid Family Labour}}{\text{Total Assets}}$$

Total Assets = 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 Purchased Feeds Used

Number of Sows	600			
Total Pigs Fed	16,833			
	Total per Year (tonnes)	Total per Month (tonnes)	Total per Pig (kgs)	Total per Pig (lbs)
Dry Sow	567.23	47.27	33.70	74.29
Lactating Sow	194.51	16.21	11.56	25.48
Boar	3.29	0.27	0.20	0.43
Creep	<u>8.42</u>	<u>0.70</u>	<u>0.50</u>	<u>1.10</u>
Total	773.44	64.45	45.95	101.30

Summary of Home Feed Ingredients Used

	Total per Year (tonnes)	Total per Month (tonnes)	Total per Pig (kgs)	Total per Pig (lbs)
Wheat	258.30	21.52	15.34	33.83
Barley	346.41	28.87	20.58	45.37
Corn	1.18	0.10	0.07	0.15
Soybean Meal	39.11	3.26	2.32	5.12
Canola Meal	45.71	3.81	2.72	5.99
Peas	51.92	4.33	3.08	6.80
Sow Micro	3.87	0.32	0.23	0.51
Canola Oil	0.17	0.01	0.01	0.02
Whey Powder	0.84	0.07	0.05	0.11
Fish Meal	0.50	0.04	0.03	0.07
Plasma	0.49	0.04	0.03	0.06
Limestone	8.15	0.68	0.48	1.07
Dical (16% Ca-21%)	8.69	0.72	0.52	1.14
Salt - 96%	3.00	0.25	0.18	0.39
Phytase	0.38	0.03	0.02	0.05
L-Lysine HCL	0.73	0.06	0.04	0.10
L-Threonine	0.00	0.00	0.00	0.00
DL-Methionine	0.00	0.00	0.00	0.00
Oats - groats	4.00	0.33	0.24	0.52
Total	773.44	64.45	45.95	101.30

Contact Us

For more information, contact a Farm Management Specialist.

- manitoba.ca/agriculture
- mbfarmbusiness@gov.mb.ca
- 1-844-769-6224

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