Guidelines for Estimating Organic Crop Production Costs 2016

in Manitoba

Manitoba

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Guidelines For Estimating

Organic Crop Production Costs - 2016

Date: January, 2016

The following budgets are estimates of the cost of producing the most commonly grown organic field crops in Manitoba. General Manitoba Agriculture, Food and Rural Development (MAFRD) recommendations are assumed for crop fertility management. These figures provide an economic evaluation of the crops and estimated yields 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 organic 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 for various crops. On each farm, costs and yields differ due to soil type, climate and agronomic practices.

This tool is available as an Excel worksheet at: www.manitoba.ca/agriculture or at your local MAFRD GO Office. *The Farm Machinery Custom and Rental Rate* 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 MAFRD GO Office.

Organic Crop Production Costs 2016 Guidelines (Dollars Per Acre)

	Brown Flax	Green Peas	HRS Wheat	Oats	Hemp Oil	Spring Spelt	Soy-beans	Feed Barley	Fall Rye
Profitability Ranking	***5***	***11***	***3***	***4***	***2***	***6***	***7***	***9***	***10***
A. Operating Costs									
Seed & Treatment	$46.07	$45.95	$50.46	$30.00	$56.25	$38.50	$75.60	$31.03	$28.00
Fertility	$76.01	$76.01	$76.01	$76.01	$76.01	$76.01	$76.01	$76.01	$76.01
Compost	$12.23	$12.23	$12.23	$12.23	$12.23	$12.23	$12.23	$12.23	$12.23
Herbicide	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Fungicide	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Insecticide	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Fuel	$17.51	$17.55	$17.70	$18.09	$17.46	$17.55	$17.53	$17.77	$17.65
Machinery Operating	$10.00	$10.00	$10.00	$10.00	$10.00	$10.00	$10.00	$10.00	$10.00
Machinery Lease	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Rental and Custom	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Crop Insurance	$27.00	$19.39	$21.70	$19.88	$33.79	$0.00	$23.34	$11.56	$15.96
Other Costs	$7.75	$7.75	$7.75	$7.75	$7.75	$7.75	$7.75	$7.75	$7.75
Certification Cost	$3.33	$3.33	$3.33	$3.33	$3.33	$3.33	$3.33	$3.33	$3.33
Land Taxes	$12.00	$12.00	$12.00	$12.00	$12.00	$12.00	$12.00	$12.00	$12.00
Drying Costs	-	-	-	-	$20.00	-	-	-	-
Interest on Operating	$5.83	$5.62	$5.81	$5.21	$6.84	$4.88	$6.54	$5.00	$5.03
Total Operating	**$217.73**	**$209.83**	**$216.99**	**$194.50**	**$255.66**	**$182.25**	**$244.34**	**$186.68**	**$187.96**
B. Fixed Costs									
Land Investment Costs	$53.75	$53.75	$53.75	$53.75	$53.75	$53.75	$53.75	$53.75	$53.75
Machinery Depreciation	$22.19	$22.19	$22.19	$22.19	$22.19	$22.19	$22.19	$22.19	$22.19
Machinery Investment	$5.55	$5.55	$5.55	$5.55	$5.55	$5.55	$5.55	$5.55	$5.55
Storage Costs	$2.03	$2.61	$4.58	$9.80	$1.34	$2.59	$2.35	$5.49	$3.92
Total Fixed	**$83.51**	**$84.10**	**$86.06**	**$91.29**	**$82.82**	**$84.08**	**$83.84**	**$86.98**	**$85.41**
Total Operating & Fixed	**$301.24**	**$293.94**	**$303.05**	**$285.79**	**$338.48**	**$266.33**	**$328.18**	**$273.66**	**$273.37**
C. Labour	$64.00	$64.00	$64.00	$64.00	$64.00	$64.00	$64.00	$64.00	$64.00
Total Costs	**$365.24**	**$357.94**	**$367.05**	**$349.79**	**$402.48**	**$330.33**	**$392.18**	**$337.66**	**$337.37**

Profitability & Breakeven Analysis

Estimated Farmgate									
Price $ per unit	**$34.00**	**$15.38**	**$18.86**	**$7.00**	**$1.55**	**$23.00**	**$28.19**	**$8.41**	**$10.00**
Yield per acre (bu or lb.)	**15.5**	**20.0**	**35.0**	**75.0**	**450**	**19.8**	**18.0**	**42.0**	**30.0**
Unit type	bu	bu	bu	bu	lb	bu	bu	bu	bu
Gross Revenue / acre	**$527.00**	**$307.60**	**$660.10**	**$525.00**	**$697.50**	**$455.40**	**$507.42**	**$353.22**	**$300.00**
Marginal Returns									
Over Operating Costs	$309.27	$97.77	$443.11	$330.50	$441.84	$273.15	$263.08	$166.54	$112.04
Over Operating & Fixed Costs	$225.76	$13.66	$357.05	$239.21	$359.02	$189.07	$179.24	$79.56	$26.63
Over Total Costs (Net Profit)	$161.76	($50.34)	$293.05	$175.21	$295.02	$125.07	$115.24	$15.56	($37.37)
Operating Expense Ratio	**41.3%**	**68.2%**	**32.9%**	**37.0%**	**36.7%**	**40.0%**	**48.2%**	**52.9%**	**62.7%**
Breakeven Price Per Unit									
Operating Costs	$14.05	$10.49	$6.20	$2.59	$0.57	$9.20	$13.57	$4.44	$6.27
Operating & Fixed Costs	$19.44	$14.70	$8.66	$3.81	$0.75	$13.45	$18.23	$6.52	$9.11
Total Costs	**$23.56**	**$17.90**	**$10.49**	**$4.66**	**$0.89**	**$16.68**	**$21.79**	**$8.04**	**$11.25**
Breakeven Yield (Bu or lb.)									
Operating Costs	6.4	13.6	11.5	27.8	164.9	7.9	8.7	22.2	18.8
Operating & Fixed Costs	8.9	19.1	16.1	40.8	218.4	11.6	11.6	32.5	27.3
Total Costs	**10.7**	**23.3**	**19.5**	**50.0**	**259.7**	**14.4**	**13.9**	**40.1**	**33.7**

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.

			Organic Green Manure Crops					
Winter Wheat	**Buck-wheat**	**Sunflowers Oil**	**Sweet Clover**	**Oat / Pea Mix**	**Red Clover**	**Forage Peas**	**Alfalfa**	**Your Farm**
1	***12***	***8***						
$46.00	$35.75	$16.00	$15.75	$49.30	$25.00	$37.00	$11.25	
$76.01	$76.01	$76.01						
$12.23	$12.23	$12.23	$12.23	$12.23	$12.23	$12.23	$12.23	
$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
$17.80	$17.49	$17.76	$14.66	$14.66	$14.66	$14.66	$14.66	
$10.00	$10.00	$10.00	$10.00	$10.00	$10.00	$10.00	$10.00	
$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
$23.30	$30.59	$18.67	$0.00	$0.00	$0.00	$0.00	$0.00	
$7.75	$7.75	$7.75	$7.75	$7.75	$7.75	$7.75	$7.75	
$3.33	$3.33	$3.33	$3.33	$3.33	$3.33	$3.33	$3.33	
$12.00	$12.00	$12.00	$12.00	$12.00	$12.00	$12.00	$12.00	
-	-	$10.00	-	-	-	-	-	
$5.73	$5.64	$5.05	$2.08	$3.00	$2.34	$2.67	$1.96	
$214.15	**$210.80**	**$188.80**	**$77.80**	**$112.27**	**$87.31**	**$99.64**	**$73.18**	
$53.75	$53.75	$53.75	$53.75	$53.75	$53.75	$53.75	$53.75	
$22.19	$22.19	$22.19	$22.19	$22.19	$22.19	$22.19	$22.19	
$5.55	$5.55	$5.55	$5.55	$5.55	$5.55	$5.55	$5.55	
$5.88	$1.83	$5.35	$0.00	$0.00	$0.00	$0.00	$0.00	
$87.37	**$83.32**	**$86.83**	**$81.49**	**$81.49**	**$81.49**	**$81.49**	**$81.49**	
$301.52	**$294.11**	**$275.63**	**$159.29**	**$193.76**	**$168.80**	**$181.13**	**$154.67**	
$64.00	$64.00	$64.00	$64.00	$64.00	$64.00	$64.00	$64.00	
$365.52	**$358.11**	**$339.63**	**$223.29**	**$257.76**	**$232.80**	**$245.13**	**$218.67**	
$19.00	**$18.00**	**$0.50**						
45.0	**14.0**	**900**						
bu	bu	lb						
$855.00	**$252.00**	**$450.00**						
$640.85	$41.20	$261.20						
$553.48	($42.11)	$174.37						
$489.48	($106.11)	$110.37						
25.0%	**83.6%**	**42.0%**						
$4.76	$15.06	$0.21						
$6.70	$21.01	$0.31						
$8.12	**$25.58**	**$0.38**						
11	11.7	378						
15.9	16.3	551.3						
19	**19.9**	**679**						

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

	Brown Flax	Green Peas	HRS Wheat	Oats	Hemp Oil	Spring Spelt	Soy-beans	Feed Barley	Fall Rye
A. Operating Costs	$217.73	$209.83	$216.99	$194.50	$255.66	$182.25	$244.34	$186.68	$187.96
B. Fixed Costs	$83.51	$84.10	$86.06	$91.29	$82.82	$84.08	$83.84	$86.98	$85.41
Total Costs	$365.24	$357.94	$367.05	$349.79	$402.48	$330.33	$392.18	$337.66	$337.37
Estimated Farmgate									
Price $ per unit	**$34.00**	**$15.38**	**$18.86**	**$7.00**	**$1.55**	**$23.00**	**$28.19**	**$8.41**	**$10.00**
Yield per acre (bu or lb.)	**16**	**20**	**35**	**75**	**450**	**20**	**18**	**42**	**30**
Unit type	bu	bu	bu	bu	bu	bu	bu	bu	bu

Percent Price Variation	Up 5%	Down 10%	**Percent Yield Variation**	Up 10%	Down 5%

Higher Price ($ per unit)	$35.70	$16.15	$19.80	$7.35	$1.63	$24.15	$29.60	$8.83	$10.50
Lower Price ($ per unit)	$30.60	$13.84	$16.97	$6.30	$1.40	$20.70	$25.37	$7.57	$9.00
Higher Yield (per acre)	17.1	22.0	38.5	82.5	495.0	21.8	19.8	46.2	33.0
Lower Yield (per acre)	14.7	19.0	33.3	71.3	427.5	18.8	17.1	39.9	28.5

Higher Margin Scenario - Price Up 5% and Yield Up 10%

Gross Revenue / acre	$608.69	$355.28	$762.42	$606.38	$805.61	$525.99	$586.07	$407.97	$346.50
Marginal Returns									
Over Operating Costs	$390.95	$145.44	$545.42	$411.87	$549.95	$343.73	$341.73	$221.29	$158.54
Over Total Costs (Net Profit)	$243.44	($2.66)	$395.36	$256.58	$403.13	$195.66	$193.89	$70.31	$9.13
Profitability Ranking	***5***	***11***	***3***	***4***	***2***	***6***	***7***	***9***	***10***
Operating Expense Ratio	35.8%	59.1%	28.5%	32.1%	31.7%	34.6%	41.7%	45.8%	54.2%

Lower Margin Scenario - Price Down 10% and Yield Down 5%

Gross Revenue / acre	$450.59	$263.00	$564.39	$448.88	$596.36	$389.37	$433.84	$302.00	$256.50
Marginal Returns									
Over Operating Costs	$232.85	$53.16	$347.39	$254.37	$340.70	$207.11	$189.51	$115.32	$68.54
Over Total Costs (Net Profit)	$85.34	($94.94)	$197.33	$99.08	$193.88	$59.04	$41.67	($35.65)	($80.87)
Profitability Ranking	***5***	***11***	***2***	***4***	***3***	***6***	***8***	***9***	***10***
Operating Expense Ratio	48.3%	79.8%	38.4%	43.3%	42.9%	46.8%	56.3%	61.8%	73.3%

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Risk & Sensitivity Analysis

Winter Wheat	Buck-wheat	Sunflowers Oil	Your Farm
$214.15	$210.80	$188.80	
$87.37	$83.32	$86.83	
$365.52	$358.11	$339.63	
$19.00	**$18.00**	**$0.50**	
45	**14**	**900**	
lb	bu	lb	
$19.95	$18.90	$0.53	
$17.10	$16.20	$0.45	
49.5	15.4	990.0	
42.8	13.3	855.0	
$987.53	$291.06	$519.75	
$773.38	$80.26	$330.95	
$622.01	($67.05)	$180.12	
1	***12***	***8***	
21.7%	72.4%	36.3%	
$731.03	$215.46	$384.75	
$516.88	$4.66	$195.95	
$365.51	($142.65)	$45.12	
1	***12***	***7***	
29.3%	97.8%	49.1%	

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Seed

Crop	Seeding Rate per Acre		Price per Unit		Cost per Acre	
Brown Flaxseed	60	lb	$0.77	/lb	$46.07	
Green Peas	2.50	bu	$18.38	/bu	$45.95	
HRS Wheat	2.16	bu	$23.36	/bu	$50.46	
Oats	3.00	bu	$10.00	/bu	$30.00	
Hemp Oil	25	lb	$2.25	/lb	$56.25	
Spring Spelt	110	lb	$0.35	/lb	$38.50	
Soybeans	84	lb	$0.90	/lb	$75.60	
Feed Barley	2.5	bu	$12.41	/bu	$31.03	
Fall Rye	2	bu	$14.00	/bu	$28.00	
Winter Wheat	2.0	bu	$23.00	/bu	$46.00	
Buckwheat	65	lb	$0.55	/lb	$35.75	
Sunflowers Oil	4	lb	$4.00	/lb	$16.00	
Green Manure Crop						
Sweet Clover	7	lb	$2.25	/lb	$15.75	
Forage Oat Pea Mix	170	lb	$0.29	/lb	$49.30	(50 lb oats, 70 lb peas)
Red Clover	10	lb	$2.50	/lb	$25.00	
Forage Peas	2	bu	$18.50	/bu	$37.00	
Alfalfa	3.75	lb	$3.00	/lb	$11.25	

Soil Fertility

Green manure

Plowdown rotation 1 year every 4 years

Green Manure Crop	Useage of each crop type
Sweet Clover	50%
Forage Oat Pea Mix	0%
Red Clover	50%
Forage Peas	0%
Alfalfa	0%
	100%
	(Total must = 100%)

Total Annual Green Manure Cost **$76.01 /acre**

Compost

Compost application 1 year every 10 years

Compost cost	$10.50	/ton
Compost application cost	$10.00	/cubic yard
Compost application rate (tons)	4.50	/acre
Compost bulk density (tons)	0.60	/cubic yard
Compost cost	$47.25	/acre
Compost application	$75.00	/acre
Total Compost Cost	$122.25	/acre

Total Annual Compost Cost **$12.23 /acre**

Organic Pesticide
Per Acre

Crop	Weed Control $/acre	Disease Control $/acre	Insect Control $/acre	Total Cost $/acre
Brown Flaxseed	$0.00	$0.00	$0.00	$0.00
Green Peas	$0.00	$0.00	$0.00	$0.00
HRS Wheat	$0.00	$0.00	$0.00	$0.00
Oats	$0.00	$0.00	$0.00	$0.00
Hemp Oil	$0.00	$0.00	$0.00	$0.00
Spring Spelt	$0.00	$0.00	$0.00	$0.00
Soybeans	$0.00	$0.00	$0.00	$0.00
Feed Barley	$0.00	$0.00	$0.00	$0.00
Fall Rye	$0.00	$0.00	$0.00	$0.00
Winter Wheat	$0.00	$0.00	$0.00	$0.00
Buckwheat	$0.00	$0.00	$0.00	$0.00
Sunflowers Oil	$0.00	$0.00	$0.00	$0.00
Green Manure Crop				
Sweet Clover	$0.00	$0.00	$0.00	$0.00
Forage Oat Pea Mix	$0.00	$0.00	$0.00	$0.00
Red Clover	$0.00	$0.00	$0.00	$0.00
Forage Peas	$0.00	$0.00	$0.00	$0.00
Alfalfa	$0.00	$0.00	$0.00	$0.00

Certification Costs 600 organic acres

OPAM Annual Fee	$1,500.00
Inspection Fee	$500.00
Total	$2,000.00

Cost per acre **$3.33 /acre**

Operating Costs

Interest Rate on Operating	5.50%	Grain Hauling		
Land Taxes ($/acre)	$12.00	Distance to storage	6	miles roundtrip
Labour rate ($/hour)	$20.00	Distance to market	0	miles roundtrip
Machinery Operating ($/acre)	$10.00	Grain truck fuel use	5	Miles per Imp. Gallon
Other Costs ($/acre)	$7.75	Grain truck size	475	bushels
Fuel Cost ($/litre)	$0.85			

		Operating Cost ($/Acre)									
	Labour		Crop	Drying	Storage	Rental and Custom Costs					
Crop	(hrs/acre)	Fuel	Insurance	Costs	$/acre	Seeding	Application	Swathing	Harvest	General	Total
Brown Flaxseed	3.2	$17.51	$27.00	-	$2.03	-	-	-	-	-	$0.00
Green Peas	3.2	$17.55	$19.39	-	$2.61	-	-	-	-	-	$0.00
HRS Wheat	3.2	$17.70	$21.70	-	$4.58	-	-	-	-	-	$0.00
Oats	3.2	$18.09	$19.88	-	$9.80	-	-	-	-	-	$0.00
Hemp Oil	3.2	$17.46	$33.79	$20.00	$1.34	-	-	-	-	-	$0.00
Spring Spelt	3.2	$17.55	$0.00	-	$2.59	-	-	-	-	-	$0.00
Soybeans	3.2	$17.53	$23.34	-	$2.35	-	-	-	-	-	$0.00
Feed Barley	3.2	$17.77	$11.56	-	$5.49	-	-	-	-	-	$0.00
Fall Rye	3.2	$17.65	$15.96	-	$3.92	-	-	-	-	-	$0.00
Winter Wheat	3.2	$17.80	$23.30	-	$5.88	-	-	-	-	-	$0.00
Buckwheat	3.2	$17.49	$30.59	-	$1.83	-	-	-	-	-	$0.00
Sunflowers Oil	3.2	$17.76	$18.67	$10.00	$5.35	-	-	-	-	-	$0.00
Green Manure Crop											
Sweet Clover	3.2	$14.66	$0.00	-		-	-	-	-	-	$0.00
Forage Oat Pea Mix	3.2	$14.66	$0.00	-		-	-	-	-	-	$0.00
Red Clover	3.2	$14.66	$0.00	-		-	-	-	-	-	$0.00
Forage Peas	3.2	$14.66	$0.00	-		-	-	-	-	-	$0.00
Alfalfa	3.2	$14.66	$0.00	-		-	-	-	-	-	$0.00

* Storage costs are listed under Fixed Costs on the Summary Page.

Field Fuel Usage

		Number of Field Operations & Litres Fuel Per Acre Per Operation								Trucks L/acre	
		cultivator or tandem disk	high speed disk	harrow or land roller	air drill	row planter	misc.	swather	combine	3/4 ton pickup	grain hauling
Crop	Total L/acre	2.25	3.5	0.75	2.5	1.3	0	1.13	5.54	3	
Brown Flaxseed	20.60	3		2	1			1	1	3	0.18
Green Peas	20.65	3		2	1			1	1	3	0.23
HRS Wheat	20.82	3		2	1			1	1	3	0.40
Oats	21.28	3		2	1			1	1	3	0.86
Hemp Oil	20.54	3		2	1			1	1	3	0.12
Spring Spelt	20.65	3		2	1			1	1	3	0.23
Soybeans	20.63	3		2	1			1	1	3	0.21
Feed Barley	20.90	3		2	1			1	1	3	0.48
Fall Rye	20.76	3		2	1			1	1	3	0.34
Winter Wheat	20.94	3		2	1			1	1	3	0.52
Buckwheat	20.58	3		2	1			1	1	3	0.16
Sunflowers Oil	20.89	3		2	1			1	1	3	0.47
Green Manure Crop											
Sweet Clover	17.25	3	1	2	1					3	
Forage Oat Pea Mix	17.25	3	1	2	1					3	
Red Clover	17.25	3	1	2	1					3	
Forage Peas	17.25	3	1	2	1					3	
Alfalfa	17.25	3	1	2	1					3	

Fixed Costs

Land value ($/acre)		$2,150		Land cost ($/acre)	$53.75
Total Crop acres		600		Machinery Investment ($/acre)	$221.90
Depreciation Rate		10.0%			
Investment Rate		2.50%		Machinery Depreciation cost ($/acre)	$22.19
				Machinery Investment cost ($/acre)	$5.55
Grain Storage	Usage %	Cost		Machinery Lease cost ($/acre)	$0.00
Non-aeration bins	25%	$1.85 /bu		Total ($/acre)	$27.74
Aeration bins	75%	$2.35 /bu			

Owned Equipment Inventory and Current Values

Power & Misc Equipment	Market Value	Grain Usage %	Grain Allocation	Harvest Equipment	Market Value	Grain Usage %	Grain Allocation
4WD Tractor	$33,750	100%	$33,750	Combine	$30,000	100%	$30,000
2WD Tractor	$7,500	75%	$5,625	Swather	$11,250	100%	$11,250
ATV Quad	$750	75%	$563	PTO Auger	$500	100%	$500
	$0	0%	$0	Auger	$600	100%	$600
	$0	0%	$0		$0	0%	$0
	$0	0%	$0		$0	0%	$0
	$0	0%	$0		$0	0%	$0
	$0	0%	$0		$0	0%	$0
Total			$39,938	Total			$42,350

Seeding, Tillage, Spraying	Market Value	Grain Usage %	Grain Allocation	Trucks & Trailers	Market Value	Grain Usage %	Grain Allocation
Cultivator	$7,500	100%	$7,500		$0	0%	$0
Harrow	$5,250	100%	$5,250	3 ton grain truck	$6,000	100%	$6,000
Air tank	$7,500	100%	$7,500	5th wheel flatdeck	$1,500	100%	$1,500
Air drill	$15,000	100%	$15,000		$0	0%	$0
Rock picker	$600	100%	$600		$0	0%	$0
tandem disk	$7,500	100%	$7,500		$0	0%	$0
	$0	0%	$0		$0	0%	$0
	$0	0%	$0		$0	0%	$0
Total	$43,350		$43,350	Total			$7,500

Owned Equipment TOTAL	$133,138	$221.90 per acre

Leased Equipment Inventory

Power & Misc Equipment	Annual Lease	Grain Usage %	Grain Allocation	Harvest Equipment	Annual Lease	Grain Usage %	Grain Allocation
enter equipment here	$0	0%	$0	enter equipment here	$0	0%	$0
	$0	0%	$0		$0	0%	$0
	$0	0%	$0		$0	0%	$0
	$0	0%	$0		$0	0%	$0
	$0	0%	$0		$0	0%	$0
	$0	0%	$0		$0	0%	$0
	$0	0%	$0		$0	0%	$0
	$0	0%	$0		$0	0%	$0
Total			$0	Total			$0

Seeding, Tillage, Spraying	Annual Lease	Grain Usage %	Grain Allocation	Trucks & Trailers	Annual Lease	Grain Usage %	Grain Allocation
enter equipment here	$0	0%	$0	enter equipment here	$0	0%	$0
	$0	0%	$0		$0	0%	$0
	$0	0%	$0		$0	0%	$0
	$0	0%	$0		$0	0%	$0
	$0	0%	$0		$0	0%	$0
	$0	0%	$0		$0	0%	$0
	$0	0%	$0		$0	0%	$0
	$0	0%	$0		$0	0%	$0
Total	$0		$0	Total			$0

Leased Equipment TOTAL	$0	$0.00 per acre

* Leased equipment costs are listed under Operating Costs on the Summary Page.

Other Assumptions

Fuel Costs: Includes fuel used for field work, trucking in inputs and trucking out production.

Machinery Operating Costs: Includes costs for maintenance, repairs, licenses and insurance.

Crop Insurance: (2015 rates) Risk Area #2 "E" soil zone at 80% coverage and additional hail insurance at $160/acre coverage for all crops. Flax, HRS Wheat, Oats, and Winter Wheat are based on organic insured values.

Other Costs: Includes overhead expenses - hydro, telephone, accounting, buildings, supplies and insurance, etc.

Land Taxes: The average cost based on land tax assessment and mill rates of a sample of municipalities growing crops.

Drying Costs: Budget allocates costs only for sunflowers and hemp. However, drying costs may be incurred in some years for the other crops.

Interest On Operating: Interest charges on operating costs are calculated at 5.5% for six months.

Land Investment Cost: Land value are based on approximate average land values. Budget assumed 2.5% return on land investment

Depreciation: Assumed 10% on machinery, no salvage value.

Investment Cost: Assumed 2.5% opportunity cost on machinery.

Estimated Farmgate Values:

Crop prices are based on deferred delivery contract prices for fall 2015.
Estimated yields are based on 60% of MASC 10 year averages for Manitoba for all crops except for hemp and buckwheat at 90%

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

Investment Cost = $\frac{\text{Original Cost + Salvage Value}}{2}$ x Investment Rate

Storage Cost:

Storage costs for each crop are based on estimated yields entered on the Summary page.
Assumed a 10% depreciation cost and 2.5% investment cost.
Farm storage requirements were assumed to cost $1.85/bushel for 25% of the storage and $2.35/bushel for 75% aerated storage.

Example - Wheat

Non-Aeration Bins (25%)

Depreciation:	$\frac{\$64.75-\$6.475}{20 \text{ years}}$		$2.91			
Investment:	$\frac{\$64.75+\$6.475}{2}$	x 2.5%	$0.89			
		Sub-Total	$3.80	x 25%	=	**$0.95**

Aeration Bins (75%)

Depreciation:	$\frac{\$82.25-\$8.225}{20 \text{ years}}$		$3.70			
Investment:	$\frac{\$82.25+\$8.225}{2}$	x 2.5%	$1.13			
		Sub-Total	$4.83	x 75%	=	**$3.62**
				Total		**$4.58**

Profitability & Breakeven Analysis:

Gross Revenue = Price per unit x Yield per acre (eg. wheat: $18.86/bu x 35bu/ac = $660.10/ac)

Net Profit = Gross Revenue - Total Cost (eg. wheat: $660.10 gross revenue - $367.05 total cost = $293.05 per acre)

Operating Expense Ratio = (Operating Cost / Gross Revenue) x 100 (eg. wheat: $216.99 operating expense / $660.10 total cost = 32.9%)

Breakeven Price = Cost / Target Yield (eg. wheat cost $367.05 / 35 bu = $10.49 per bu)

Breakeven Yield = Cost / Price per Unit (eg. wheat cost $367.05 / $18.86 bu = 19.5 bu)

Created and maintained by **MAFRD Farm Management** **January, 2016**

For more information, contact your local **MAFRD GO Office** **or:**

Roy Arnott
Farm Management Specialist

Gary Smart
Farm Management Specialist

Laura Telford
Business Development Specialist

For more information

- Contact your local Manitoba Agriculture, Food and Rural Development (MAFRD) Growing Opportunities (GO) Office.
- Visit us at **manitoba.ca/agriculture**.

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