

# 2017 FIELD CROP BUDGETS

## Publication 60

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These crop budgets are a tool for estimating expenses. The sample costs are only a guide to illustrate a method of preparing your projections. They are based on many assumptions, including seeding rates, levels of fertilizer use, etc. Due to regional differences, there may be considerable variation in results.

To project your break-even price after total costs, enter your farm figures in the spaces provided. The resulting estimate will help you choose your crop mix and set target prices and marketing strategies for your farm.

Electronic versions of these crop budget worksheets can be found at [ontario.ca/agbusiness](http://ontario.ca/agbusiness) under *Cost of Production Budgets*.

The use of imperial and metric measurement in this publication reflects the way information is reported by industry. Seeding rates are typically reported in pounds (lb)/acre, and fertilizer rates are reported in kilogram (kg)/hectare. See page 20 for metric and imperial conversions.



## 2017 FIELD CROP BUDGETS

Crop budgets are a management tool to estimate costs and evaluate cropping alternatives. The sample costs are not averages or recommended treatments. The budgets comprise treatments derived from crop advisors in the areas where the crops are commonly grown. There will be differences due to growing region, cropping practices, individual needs and yield expectations. The budgets, unless indicated otherwise, are based on conventional tillage practices. Seed costs, except for the *Bacillus thuringiensis* (Bt), Roundup Ready (RR) and herbicide-tolerant corn, spring canola and soybeans, are for non-genetically enhanced varieties. The budgets developed for Bt, RR or herbicide-tolerant varieties do not represent an endorsement of these products. They are included due to the current predominance of these production systems in field crop operations.

Identity Preserved (IP) crops require budgeting for any extra expenses and revenue, e.g., increased seed, weed control, storage and equipment cleaning costs. Some of the budgets provide a line item for this.

Interest rates were calculated at 3.70% for the period between planting and harvest.

These budgets will be most meaningful if you use your expected yields and specific costs in developing production plans. Input prices for seed, fertilizer, fuel and pesticides were based on the survey results reported in the Ontario Farm Input Monitoring Project conducted by the University of Guelph, Ridgetown campus. The production insurance premiums shown are the producer premiums at the highest coverage level and at the floating price, if available.

The estimated costs for machinery are derived from agricultural engineering formulas and Ontario average custom rates. The Ontario average custom rates are allocated across the six machinery-related expenses. It is recommended that you use your records to derive your costs. Experience is the best guide to help budget machinery costs. Prior year's statements of income and expenses can provide information on equipment repairs, maintenance and fuel costs. The portion of those costs that relates to crop production can be divided by the acres of crop produced to arrive at a cost per acre.

Overhead expenses are a major part of the total cost of doing business. In addition to the depreciation of machinery, include depreciation on all related tools and storage buildings. Land costs would include property tax and any other land-related costs. Other overhead expenses should include insurance, professional fees, office, vehicles and storage. In all cases, divide overhead expenses by the acreage of crop to express costs on a per-acre basis. Interest on investment is an opportunity cost to you — the rate of return that you expect or want on your invested capital.

If there are significant debt commitments for land and equipment, an alternative method of budgeting overhead expenses is to use the debt servicing requirements. In this case, use the actual interest and principal payment commitments, rather than depreciation and expected return on invested capital.

“Total Revenue” is the yield you expect multiplied by the price you expect. Yield information is most accurate if based on your experience with the land and techniques you will be using. If you do not have such records, check with AGRICORP or a local farm supply dealer. They can help you develop plans and reasonable expectations for your crops.

“Gross Margin” is the difference between total operating expenses and total revenue. “Operating Expenses” (e.g., seed, fertilizer, fuel, repairs, etc.) change with the crop grown and the production blend used. “Fixed or overhead costs” will show little or no change whether one crop or another is grown. “Gross Margin” is a quick and easy measure for comparing relative profitability among your cropping choices.

**Table 1.** Adjustment of nitrogen requirements for previous crops with nitrogen credits

Type of crop	N requirement reduction (kg/ha)	
	Corn	Other Crops
Perennial forage, less than one-third legume	0	0
Perennial forage, one-third to half legume	55	55
Perennial forage, half or more legume	110	110
Clover cover crop seeded/ploughed in same year	80	45 <sup>1</sup>
Soybean and field bean residue	30	0

<sup>1</sup> Applies where the legume stand is thick and over 40 cm (16 in.) high.

## 2017 Crop Comparison Summary Table for Selected Field Crops (\$/acre)\*

Expense	Corn Conventional Tillage	Herbicide- Tolerant Spring Canola	Non-GMO Soybeans No till	Roundup Ready Soybeans No till	Coloured Beans	White/ Black Beans	Soft Red Winter Wheat No till	Oats (Southern Ontario)	Hard Red Spring Wheat
Seed	106.10	86.65	44.35	69.25	165.00	92.30	72.80	35.60	69.25
Seed treatment	1.60	–	13.00	13.00	–	–	–	–	–
Fertility	119.40	97.20	39.15	39.15	39.10	39.10	91.00	30.70	60.70
Pesticides	14.15	18.50	43.45	16.90	105.40	122.65	34.90	24.40	24.40
<b>Total Inputs</b>	<b>241.25</b>	<b>202.35</b>	<b>139.95</b>	<b>138.30</b>	<b>309.50</b>	<b>254.05</b>	<b>198.70</b>	<b>90.70</b>	<b>154.35</b>
Tillage	55.00	50.00	–	–	83.00	55.00	–	50.00	50.00
Planting	22.00	19.00	25.00	25.00	22.00	26.00	24.00	19.00	19.00
Spraying	11.00	22.00	22.00	22.00	33.00	44.00	22.00	22.00	22.00
Fertilizing	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00
Harvesting & trucking	80.65	52.90	53.75	53.75	98.50	57.30	61.60	52.80	54.55
<b>Total Machinery</b>	<b>179.65</b>	<b>154.90</b>	<b>111.75</b>	<b>111.75</b>	<b>247.50</b>	<b>193.30</b>	<b>118.60</b>	<b>154.80</b>	<b>156.55</b>
Drying	80.35	–	12.15	12.15	–	–	–	–	–
Production insurance	12.60	18.05	9.85	9.85	29.50	17.35	7.30	8.10	8.40
Interest @ 3.70%	8.85	5.80	4.50	4.45	8.50	7.40	8.75	3.10	4.70
Marketing & other	35.50	3.35	11.70	11.70	5.65	6.25	2.05	1.90	1.30
<b>Total Costs</b>	<b>558.20</b>	<b>384.45</b>	<b>289.90</b>	<b>288.20</b>	<b>600.65</b>	<b>478.35</b>	<b>335.40</b>	<b>258.60</b>	<b>325.30</b>
Yield									
Price									
<b>Gross Return</b>									
<b>Net Margin/Acre</b>									
Less:									
Land cost/rent									
Utilities/acct/misc.									
Net Return per Acre									

\* The crop comparison summary table is derived from the individual budgets in the publication. Some expense items have been combined in the summary table. For the break-out of the individual expenses, refer to the respective budget in the publication.

### Changes for the 2017 Field Crop Budgets

New switchgrass and non-GMO corn budgets have been added.

Machinery costs updated with 2015 Ontario Custom Farmwork Rates.

Straw yields updated from Ontario Cereal Crops Committee Performance Trials results.

### Crop Budgeting Tools:

- Ontario Enterprise Budgeting Tools: [ontario.ca/agbusiness](http://ontario.ca/agbusiness), search for “budgeting tools”
- Custom Farmwork Rates: [ontario.ca/agbusiness](http://ontario.ca/agbusiness), search for “custom farm rates”
- Custom Farmwork Rate calculator: [ontario.ca/agbusiness](http://ontario.ca/agbusiness), search for “custom farm rate calculator”
- Crop Nutrient Removal calculator (from IPNI): [www.ipni.net/article/IPNI-3346](http://www.ipni.net/article/IPNI-3346)
- Corn Nitrogen calculator: [www.gocorn.net](http://www.gocorn.net)
- Mobile Apps: Cash Cropper, Pest Manager and Ontario Corn Nitrogen Calculator: [www.gfo.ca/apps](http://www.gfo.ca/apps)

## ALFALFA-TIMOTHY HAY

DIRECT SEEDING ESTABLISHMENT			Sample Costs/ Acre	Your Farm Budget
Seed	12 lb/acre alfalfa		67.65	
Other seed (timothy)	4 lb/acre		11.35	
Inoculant			1.05	
Fertility	crop removal	24 kg/ha P <sub>2</sub> O <sub>5</sub> (6.1 kg/tonne removal rate)	10.35	
		93 kg/ha K <sub>2</sub> O (23.5 kg/tonne removal rate)	28.55	
Herbicide	burndown and broadleaf control		25.70	
Production insurance			3.45	
Tractor and machine expenses	fuel (27 L) and lubricants		27.45	
	repairs		30.05	
Custom work	2 pesticide applications		22.00	
	2 fertilizer applications, mixing and delivery		22.00	
	bale wrapping — plastic — 50% yield		34.70	
Twine			1.75	
Operator labour (self or hired)			27.30	
Interest			10.60	
<b>Total Establishment Year Expenses</b>			<b>323.95</b>	
<b>ANNUAL OPERATING EXPENSES (costs based on projected yield of 3.5 tonnes/acre)</b>				
Establishment year expenses — over 4 years (less establishment year sales)			33.40	
Fertility	crop removal	48 kg/ha P <sub>2</sub> O <sub>5</sub> (6.1 kg/tonne removal rate)	20.70	
		185 kg/ha K <sub>2</sub> O (applied in fall) (23.5 kg/tonne removal rate)	57.05	
Tractor and machine expenses	fuel (17 L) and lubricants		16.95	
	repairs		18.15	
Twine			3.50	
Production insurance			24.00	
Custom work	2 fertilizer applications, mixing and delivery		22.00	
	bale wrapping — plastic		69.40	
Other costs			-	
Land rent			-	
Operator labour (self or hired)			27.45	
Interest on operating			5.65	
<b>Total Annual Operating Expenses</b>			<b>298.25</b>	
<b>REVENUE</b>				
Expected yield _____				
Expected price _____				
<b>Total Revenue (Yield x Price)</b>				
<b>GROSS MARGIN (Revenue – Operating Expenses)</b>				
<b>OVERHEAD EXPENSES</b>				
Machinery	depreciation		16.90	
	interest on investment		6.40	
Land			-	
Other overhead			2.90	
<b>NITROGEN CREDIT TO FOLLOWING CROPS IN ROTATION</b>				
Nitrogen credit (\$/acre = N reduction (from Table 1) x price of N)				
Grain yield increase				
Total benefits/year				
<b>TOTAL EXPENSES</b>			<b>324.45</b>	
Break-even price on your farm (total expenses/expected yield):				

## BARLEY

OPERATING EXPENSES (costs based on projected yield of 1.5 tonnes/acre (70 bu/acre))			Sample Costs/ Acre	Your Farm Budget
<b>Expenses for Grain</b>				
Seed	120 lb/acre certified treated (1.0–1.4 M seeds/acre)		52.70	
Fertility	74 kg/ha N (2,800 or less corn heat units (CHUs))		32.35	
	46 kg/ha N (2,800 or more CHUs)		20.20	
	crop removal	30 kg/ha P <sub>2</sub> O <sub>5</sub> (8.0 kg/tonne removal rate)	12.95	
		23 kg/ha K <sub>2</sub> O (6.3 kg/tonne removal rate)	7.25	
Herbicide	annual grasses and broadleaf weeds		8.00	
	other		–	
Fungicide	if required		–	
Tractor and machine expenses	fuel (14 L) and lubricants		14.65	
	repairs and maintenance		20.00	
Production insurance			8.10	
Marketing board fees (\$1.33/tonne)			2.00	
Custom work	fertilizer application, mixing and delivery		11.00	
	1 pesticide application		11.00	
	other		–	
Trucking (\$9.00/tonne)			13.50	
Storage			–	
Land rent			–	
Operator labour (self or hired)			9.65	
Interest on operating			4.75	
<b>Total Operating Expenses — Grain (2,800 or less CHUs)</b>			<b>207.90</b>	
<b>Total Operating Expenses — Grain (2,800 or more CHUs)</b>			<b>195.75</b>	
<b>Expenses for Straw (costs based on projected yield of 1.89 tonnes/acre)</b>				
Fertility	crop removal	12 kg/ha P <sub>2</sub> O <sub>5</sub> (2.6 kg/tonne removal rate)	5.30	
		94 kg/ha K <sub>2</sub> O (20.0 kg/tonne removal rate)	29.10	
Tractor and machine expenses	fuel (4 L) and lubricants		4.30	
	repairs and maintenance		3.75	
Twine			5.70	
Other			13.20	
<b>Total Operating Expenses — Straw</b>			<b>61.35</b>	
<b>Total Operating Expenses (2,800 or less CHUs)</b>			<b>269.25</b>	
<b>Total Operating Expenses (2,800 or more CHUs)</b>			<b>257.10</b>	
<b>REVENUE</b>				
Expected barley yield _____				
Expected barley price _____				
<b>Total Market Revenue (Yield x Price)</b>				
Program payment _____				
<b>Total Barley Revenue</b>				
Expected straw yield _____				
Expected straw price _____				
<b>Total Straw Revenue (Yield x Price)</b>				
<b>Total Revenue</b>				
<b>GROSS MARGIN (Revenue – Operating Expenses)</b>				
<b>OVERHEAD EXPENSES</b>			<b>Barley Only</b>	<b>Barley &amp; Straw</b>
Machinery	depreciation		40.90	44.25
	interest on investment		18.85	20.35
Land			–	–
Other overhead			7.60	8.65
<b>TOTAL EXPENSES (2,800 or less CHUs)</b>			<b>275.25</b>	<b>342.50</b>
<b>TOTAL EXPENSES (2,800 or more CHUs)</b>			<b>263.10</b>	<b>330.35</b>
Break-even price on your farm (total expenses/expected yield):				

## SPRING CANOLA (Herbicide Tolerant)

OPERATING EXPENSES (costs based on projected yield of 0.88 tonnes/acre (1,939 lb/acre))		Sample Costs/ Acre	Your Farm Budget
Seed	5 lb/acre hybrid, treated	86.65	
Fertility	119 kg/ha N (206 kg/ha urea + 112 kg/ha ammonium sulphate) <sup>1</sup>	65.80	
	crop removal	23.25	
	54 kg/ha P <sub>2</sub> O <sub>5</sub> (24.5 kg/tonne removal rate) 26 kg/ha K <sub>2</sub> O (12.0 kg/tonne removal rate)	8.15	
Herbicide	other weed control (wild oat, grass, volunteer cereal)	11.50	
Technology use agreement		-	
Insecticide	if required (swede midge)	7.00	
Fungicide	if required	-	
Tractor and machine expenses	fuel (17 L) and lubricants	17.75	
	repairs and maintenance	19.45	
Marketing board and Grain Financial Protection fees (\$3.80/tonne)		3.35	
Production insurance		18.05	
Custom work	fertilizer application, mixing and delivery	11.00	
	2 pesticide applications	22.00	
	other	-	
Trucking (\$9.00/tonne)		7.90	
Storage		-	
Land rent		-	
Operator labour (self or hired)		12.35	
Interest on operating		5.80	
<b>Total Operating Expenses</b>		<b>320.00</b>	
<b>REVENUE</b>			
Expected yield _____			
Expected price _____			
<b>Total Market Revenue (Yield x Price)</b>			
Program payment			
<b>Total Revenue</b>			
<b>GROSS MARGIN (Revenue – Operating Expenses)</b>			
<b>OVERHEAD EXPENSES</b>			
Machinery	depreciation	40.90	
	interest on investment	18.30	
Land		-	
Other overhead		6.75	
<b>TOTAL EXPENSES</b>		<b>385.95</b>	
Break-even price on your farm (total expenses/expected yield):			

<sup>1</sup> Nitrogen rate is based on nitrogen price of \$1.10/kg (\$0.50/lb) N and a canola price of \$520/tonne. 112 kg/ha ammonium sulphate (21-0-0-24) supplies 27 kg/ha sulphur.

See the canola section of the OMAFRA *Agronomy Guide for Field Crops*, Publication 811, for more accurate nitrogen requirements for canola, adjusted for yield and fertilizer cost.

## WINTER CANOLA

OPERATING EXPENSES (costs based on projected yield of 1.3 tonnes/acre)		Sample Costs/ Acre	Your Farm Budget
Seed*	3.5 lb/acre — hybrid, treated	43.15	
Fertility**	210 kg/ha N (405 kg/ha urea + 112 kg/ha ammonium sulphate) <sup>1</sup>	106.05	
	crop	80 kg/ha P <sub>2</sub> O <sub>5</sub> (24.5 kg/tonne removal rate)	34.35
	removal	39 kg/ha K <sub>2</sub> O (12.0 kg/tonne removal rate)	12.00
Herbicide	volunteer cereal control	11.10	
Insecticide	if required (cabbage seedpod weevil)	15.05	
Fungicide	if required	-	
Tractor and machine expenses	fuel (13 L), lubricants	13.35	
	repairs and maintenance	14.20	
Marketing board and Grain Financial Protection fees (\$3.80/tonne)		4.95	
Production insurance		18.05	
Custom work	fertilizer application, mixing and delivery	11.00	
	2 pesticide applications	22.00	
	other	-	
Trucking (\$9.00/tonne)		11.70	
Storage		-	
Land rent		-	
Operator labour (self or hired)		9.05	
Interest on operating		6.05	
<b>Total Operating Expenses</b>		<b>332.05</b>	
REVENUE			
Expected yield _____			
Expected price _____			
<b>Total Market Revenue (Yield x Price)</b>			
Program payment			
<b>Total Revenue</b>			
GROSS MARGIN (Revenue – Operating Expenses)			
OVERHEAD EXPENSES			
Machinery	depreciation	29.85	
	interest on investment	13.35	
Land		-	
Other overhead		4.95	
<b>TOTAL EXPENSES (Hybrid)</b>		<b>380.20</b>	
Break-even price on your farm (total expenses/expected yield):			
* Seeding rate recommended range is 3–5 lb/acre. The lower rate may be difficult to achieve with some seed drills.			
** Additional nitrogen in the fall may be beneficial if seeding is delayed.			
<sup>1</sup> 112 kg/ha ammonium sulphate (21-0-0-24) supplies 27 kg/ha sulphur.			



## COLOURED BEANS

<b>OPERATING EXPENSES</b> (costs based on projected yield of 0.83 tonnes/acres (18 cwt/acre))		Sample Costs/ Acre	Your Farm Budget
Seed	70–80 lb/acre (4–5 seeds/ft row) certified, treated seed (with fungicide plus Cruiser insecticide)	165.00	
Fertility	40 kg/ha N	17.60	
	crop removal	12.55	
	30 kg/ha P <sub>2</sub> O <sub>5</sub> (14.0 kg/tonne removal rate) 30 kg/ha K <sub>2</sub> O (14.0 kg/tonne removal rate)	8.95	
Herbicide	annual grass and broadleaf weeds	36.60	
	other weed control, if required	–	
Insecticide		–	
Fungicide	if required (white mould)	50.25	
Crop pre-harvest		18.55	
Tractor and machine expenses	fuel (29 L) and lubricants	29.45	
	repairs and maintenance	32.80	
Marketing board fees (\$6.80/tonne)		5.65	
Production insurance		29.50	
Custom work	fertilizer application, mixing and delivery	11.00	
	3 pesticide applications	33.00	
Trucking (\$9.00/tonne)		7.50	
Drying		–	
Land rent		–	
Operator labour (self or hired)		22.25	
Interest on operating		8.50	
<b>Total Operating Expenses</b>		<b>489.15</b>	
<b>REVENUE</b>			
Expected yield _____			
Expected price _____			
<b>Total Market Revenue (Yield x Price)</b>			
Less pick charges (typically 2%–4%)			
Program payment			
<b>Total Revenue</b>			
<b>GROSS MARGIN (Revenue – Operating Expenses)</b>			
<b>OVERHEAD EXPENSES</b>			
Machinery	depreciation	69.70	
	interest on investment	30.80	
Land		–	
Other overhead		10.95	
<b>TOTAL EXPENSES</b>		<b>600.60</b>	
Break-even price on your farm (total expenses/expected yield):			

## GRAIN CORN

OPERATING EXPENSES (costs based on projected yield of 4.07 tonnes/acre (160 bu/acre))		Tillage System			Your Farm Budget	
		Conventional	Non-GMO Conventional	No-Till		
		Sample Costs/Acre	Sample Costs/Acre	Sample Costs/Acre		
Seed <sup>1</sup> (average cost of 3 hybrids)	32,000 kernels — treated — RR <sup>2</sup>	107.25	–	107.25		
	32,000 kernels — treated — Bt	93.10	–	93.10		
	32,000 kernels — treated — multi-trait	117.90	–	117.90		
	32,000 kernels — treated — non-GMO	–	80.35	–		
Insecticide seed treatment, if required		1.60	1.60	1.60		
Fertility <sup>3</sup>	166 kg/ha N (593 kg/ha of 28-0-0 U.A.N.)	72.15	72.15	72.15		
	crop removal	74 kg/ha P <sub>2</sub> O <sub>5</sub> (7.25 kg/tonne removal rate)	31.85	31.85	31.85	
		50 kg/ha K <sub>2</sub> O (4.9 kg/tonne removal rate)	15.40	15.40	15.40	
Herbicide	annual grass and broadleaf weed	14.15	25.65	14.15		
	burndown	–	–	8.45		
	other weed control, if required	–	–	–		
Insecticide/fungicide	if required	–	–	–		
Tractor and machine expenses	fuel (20 L conventional, 11 L no-till) and lubricant	20.45	20.45	11.55		
	repairs and maintenance	20.15	20.15	11.70		
Marketing board and Grain Financial Protection fees (\$0.469/tonne)		1.90	1.90	1.90		
Production insurance		12.60	12.60	12.60		
Custom work	fertilizer application, mixing and delivery	11.00	11.00	11.00		
	pesticide applications	11.00	11.00	22.00		
	other	–	–	–		
Trucking (\$9.00/tonne)		36.65	36.65	36.65		
Drying (\$19.75/tonne, 8 points)		80.35	80.35	80.35		
Land rent		–	–	–		
Operator labour (self or hired)		12.15	12.15	7.10		
Storage (\$2.06/tonne/month x 4 months)		33.60	33.60	33.60		
Interest on operating		8.85	8.65	8.80		
<b>Total Operating Expenses</b>		<b>489.95</b>	<b>475.50</b>	<b>486.95</b>		
<b>REVENUE</b>						
Expected yield _____ (Corn following wheat: 8.5% corn yield increase)						
Expected price _____						
<b>Total Market Revenue (Yield x Price)</b>						
Program payment						
<b>Total Revenue</b>						
<b>GROSS MARGIN (Revenue – Operating Expenses)</b>						
<b>OVERHEAD EXPENSES</b>						
Machinery	depreciation	42.90	42.90	24.90		
	interest on investment	18.90	18.90	11.00		
Land		–	–	–		
Other overhead		6.60	6.60	3.90		
<b>TOTAL EXPENSES</b>		<b>558.35</b>	<b>543.90</b>	<b>526.75</b>		
Break-even price on your farm (total expenses/expected yield):						

<sup>1</sup> Seed treated with fungicide only.

<sup>2</sup> Roundup Ready.

<sup>3</sup> Nitrogen rate is based on the nitrogen rate calculator. Nitrogen recommendation is for corn grown in southwestern/central Ontario, 2,800 heat units, clay loam soil, following wheat with straw removed, with projected corn yield of 160 bu/acre, nitrogen cost of \$1.09/kg and corn price of \$4.64/bu.

See [www.gocorn.net](http://www.gocorn.net) for more accurate nitrogen requirements for corn.

## SILAGE CORN

<b>OPERATING EXPENSES</b> (costs based on projected yield of 23 tonnes/acre)		<b>Sample Costs/ Acre</b>	<b>Your Farm Budget</b>
Seed	32,000 kernels, with seed treatment	108.85	
Insecticide seed treatment, if required		1.60	
Fertility <sup>1</sup>	166 kg/ha N (593 kg/ha of 28-0-0 U.A.N.)	72.15	
	crop removal 80 kg/ha P <sub>2</sub> O <sub>5</sub> (5.7 kg/tonne removal rate)	34.40	
	163 kg/ha K <sub>2</sub> O (11.7 kg/tonne removal rate)	50.30	
Herbicide	annual grass and broadleaf weeds	8.45	
	other weed control, if required	–	
Insecticide/fungicide	if required	–	
Tractor and machine expenses	fuel (26 L) and lubricants	26.75	
	repairs and maintenance	21.40	
Silo repair and maintenance		–	
Production insurance		12.60	
Silage inoculant		–	
Custom work	fertilizer application, mixing and delivery	11.00	
	pesticide applications	11.00	
	other	–	
Land rent		–	
Operator labour (self or hired)		23.00	
Interest on operating		7.05	
<b>Total Operating Expenses</b>		<b>388.55</b>	
<b>REVENUE</b>			
Expected yield _____			
Expected price _____			
<b>Total Market Revenue (Yield x Price)</b>			
Program payment			
<b>Total Revenue</b>			
<b>GROSS MARGIN (Revenue – Operating Expenses)</b>			
<b>OVERHEAD EXPENSES</b>			
Machinery	depreciation	45.20	
	interest on investment	17.45	
Land		–	
Other overhead		5.80	
<b>TOTAL EXPENSES</b>		<b>457.00</b>	
Break-even price on your farm (total expenses/expected yield):			

<sup>1</sup> Nitrogen rate is based on the nitrogen rate calculator. Nitrogen recommendation is for corn grown in southwestern/central Ontario, 2,800 heat units, clay loam soil, following wheat with straw removed, with projected corn yield of 160 bu/acre, nitrogen cost of \$1.09/kg and corn price of \$4.64/bu.

See [www.gocorn.net](http://www.gocorn.net) for more accurate nitrogen requirements for corn.

## FLAX

OPERATING EXPENSES (costs based on projected yield of 0.77 tonnes/acre)			Sample Costs/ Acre	Your Farm Budget
<b>Expenses for Grain</b>				
Seed	43.5 lb/acre certified, treated		28.45	
Fertility	45 kg/ha N		19.80	
	crop removal	23 kg/ha P <sub>2</sub> O <sub>5</sub> (7.5 kg/tonne removal rate)	9.70	
		17 kg/ha K <sub>2</sub> O (5.8 kg/tonne removal rate)	5.35	
Herbicide	broadleaf weed control		8.00	
	grass weed control, if required		8.10	
	desiccant		8.45	
Fungicide			-	
Tractor and machine expenses	fuel (14 L) and lubricants		14.65	
	repairs and maintenance		20.00	
Production insurance			7.70	
Custom work	fertilizer application, mixing & delivery		11.00	
	2 pesticide applications		22.00	
	other		-	
Trucking (\$9.00/tonne)			6.95	
Storage			-	
Land rent			-	
Operator labour (self or hired)			9.65	
Interest on operating			3.35	
<b>Total Operating Expenses — Grain</b>			<b>183.15</b>	
<b>Expenses for Straw (costs based on projected yield of 2.21 tonnes/acre)</b>				
Fertility	crop removal	18 kg/ha P <sub>2</sub> O <sub>5</sub> (3.2 kg/tonne removal rate)	7.60	
		105 kg/ha K <sub>2</sub> O (19.0 kg/tonne removal rate)	32.35	
Tractor and machine expenses	fuel (4 L) and lubricants		4.30	
	repairs and maintenance		3.75	
Twine			6.65	
Other			13.20	
<b>Total Operating Expenses — Straw</b>			<b>67.85</b>	
<b>Total Operating Expenses</b>			<b>251.00</b>	
<b>REVENUE</b>				
Expected flax yield _____				
Expected flax price _____				
<b>Total Market Revenue (Yield x Price)</b>				
Program payment				
<b>Total Flax Revenue</b>				
<b>GROSS MARGIN (Revenue – Operating Expenses)</b>				
<b>OVERHEAD EXPENSES</b>			<b>Flax Only</b>	<b>Flax &amp; Straw</b>
Machinery	depreciation		40.90	44.25
	interest on investment		18.85	20.35
Land			-	-
Other overhead			7.60	8.65
<b>TOTAL EXPENSES</b>			<b>250.50</b>	<b>324.25</b>
Break-even price on your farm (total expenses/expected yield):				

## OATS

OPERATING EXPENSES (costs based on projected yield of 1.2 tonnes/acre (78 bu/acre))			Sample Costs/ Acre	Your Farm Budget
Seed	85 lb/acre certified treated		36.50	
Fertility	35 kg/ha N (Southern Ontario)		15.65	
	55 kg/ha N (Northern Ontario)		24.25	
	crop removal	23 kg/ha P <sub>2</sub> O <sub>5</sub> (7.5 kg/tonne removal rate)	9.70	
17 kg/ha K <sub>2</sub> O (5.8 kg/tonne removal rate)		5.35		
Herbicide	weed control, if required		8.00	
Fungicide	for premium quality market		16.40	
Tractor and machine expenses	fuel (14 L) and lubricants		14.65	
	repairs and maintenance		20.00	
Production insurance			8.10	
Marketing board fees (\$1.59/tonne)			1.90	
Custom work	fertilizer application, mixing and delivery		11.00	
	2 pesticide applications		22.00	
Trucking (\$9.00/tonne)			10.80	
Storage			–	
Land rent			–	
Operator labour (self or hired)			9.65	
Interest on operating			3.10	
<b>Total Operating Expenses — Grain (Southern Ontario)</b>			<b>191.90</b>	
<b>Total Operating Expenses — Grain (Northern Ontario)</b>			<b>200.50</b>	
Expenses for Straw (costs based on project yield of 2.21 tonnes/acre)				
Fertility	crop removal	18 kg/ha P <sub>2</sub> O <sub>5</sub> (3.2 kg/tonne removal rate)	7.60	
		105 kg/ha K <sub>2</sub> O (19.0 kg/tonne removal rate)	32.35	
Tractor and machine expenses	fuel (4 L) and lubricants		4.30	
	repairs and maintenance		3.75	
Twine			6.65	
Other			13.20	
<b>Total Operating Expenses — Straw</b>			<b>67.85</b>	
<b>Total Operating Expenses (Southern Ontario)</b>			<b>259.75</b>	
<b>Total Operating Expenses (Northern Ontario)</b>			<b>268.35</b>	
REVENUE				
Expected oat yield _____				
Expected oat price _____				
<b>Total Market Revenue (Yield x Price)</b>				
Program payment _____				
<b>Total Oats Revenue</b>				
Expected straw yield _____				
Expected straw price _____				
<b>Total Straw Revenue (Yield x Price)</b>				
<b>Total Revenue</b>				
<b>GROSS MARGIN (Revenue – Operating Expenses)</b>				
OVERHEAD EXPENSES		Oats Only	Oats & Straw	
Machinery	depreciation	40.90	44.25	
	interest on investment	18.85	20.35	
Land		–	–	
Other overhead		7.60	8.65	
<b>TOTAL EXPENSES (Southern Ontario)</b>		<b>259.25</b>	<b>333.00</b>	
<b>TOTAL EXPENSES (Northern Ontario)</b>		<b>267.85</b>	<b>341.60</b>	
Break-even price on your farm (total expenses/expected yield):				

## SOYBEANS

OPERATING EXPENSES (costs based on projected yield of 1.18 tonnes/acre (44 bu/acre))		Tillage System			Your Farm Budget
		Non-GMO Soybeans Conventional	Non-GMO Soybeans No-Till	Roundup Ready No-Till	
		Sample Costs/Acre	Sample Costs/Acre	Sample Costs/Acre	
Seed	177,000 seeds/acre in 15-in. rows — drill (165,000 seeds/acre in 15-in. rows — planter)	44.35	44.35	69.25	
Seed treatment, if required		13.00	13.00	13.00	
Inoculant	if required	—	—	—	
Fertility	nitrogen, if required	—	—	—	
	crop removal 42 kg/ha P <sub>2</sub> O <sub>5</sub> (14.0 kg/tonne removal rate)	18.00	18.00	18.00	
	69 kg/ha K <sub>2</sub> O (23.0 kg/tonne removal rate)	21.15	21.15	21.15	
Herbicide	annual grass and broadleaf weeds	35.00	35.00	8.45	
	burndown	—	8.45	8.45	
	other weed control, if required	—	—	—	
Insecticide/fungicide	if required	—	—	—	
Tractor and machine expenses	fuel (14 L conventional, 7 L no till) and lubricants	14.65	7.65	7.65	
	repairs and maintenance	20.50	12.70	12.70	
Marketing board and Grain Financial Protection fees (\$1.56/tonne)		1.85	1.85	1.85	
Production insurance		9.85	9.85	9.85	
Drying (\$11.17/tonne), if required		12.15	12.15	12.15	
Custom work	pesticide applications	11.00	22.00	22.00	
	fertilizer application, mixing and delivery	11.00	11.00	11.00	
Added expense for IP		—	—	—	
Trucking (\$9.00/tonne)		10.75	10.75	10.75	
Storage (\$2.06/month/tonne x 4 months)		9.85	9.85	9.85	
Land rent		—	—	—	
Operator labour (self or hired)		9.65	5.00	5.00	
Interest on operating		4.50	4.50	4.45	
<b>Total Operating Expenses</b>		<b>247.25</b>	<b>247.25</b>	<b>245.55</b>	
<b>REVENUE</b>					
Expected yield _____ (Soybeans following wheat: 10% soybean yield increase)					
Expected price _____					
<b>Total Market Revenue (Yield x Price)</b>					
Additional revenue from IP					
Program payment					
<b>Total Revenue</b>					
<b>GROSS MARGIN (Revenue – Operating Expenses)</b>					
<b>OVERHEAD EXPENSES</b>					
Machinery	depreciation	41.95	25.50	25.50	
	interest on investment	19.35	12.00	12.00	
Land		—	—	—	
Other overhead		7.80	5.10	5.10	
<b>TOTAL EXPENSES</b>		<b>316.35</b>	<b>289.85</b>	<b>288.15</b>	
Break-even price on your farm (total expenses/expected yield):					

## SWITCHGRASS

<b>ESTABLISHMENT EXPENSES</b> (spring wheat costs based on projected yield of 1.33 tonnes/acre (51 bu/acre))		Direct Seeded		Underseeded with Spring Wheat		Your Farm Budget
		Conventional	No-till	Conventional	No-till	
		Sample Costs/Acre	Sample Costs/Acre	Sample Costs/Acre	Sample Costs/Acre	
Seed	10 lb/acre switchgrass	75.00	75.00	75.00	75.00	
	130 lb/acre spring wheat	-	-	69.25	69.25	
Fertility	nitrogen, if required	-	-	39.55	39.55	
	crop removal	P <sub>2</sub> O <sub>5</sub>	-	-	14.00	14.00
		K <sub>2</sub> O	-	-	6.15	6.15
Herbicide	annual grass and broadleaf control	-	-	8.00	8.00	
	burndown	-	16.85	-	16.85	
	other weed control, if required	-	-	-	-	
Insecticide/fungicide	If required	-	-	-	-	
Tractor and machine expenses	fuel (12 L conventional, 4 L no till) and lubricants	12.50	3.60	12.50	3.60	
	repairs and maintenance	13.25	7.65	13.25	7.65	
Custom work	pesticide applications	-	11.00	11.00	22.00	
	fertilizer applications, mixing and delivery	-	-	-	-	
Harvest and trucking (spring wheat)		-	-	54.00	54.00	
Operator labour (self or hired)		12.05	4.10	12.05	4.10	
Establishment failure rate		-	-	-	-	
Interest on operating		1.85	2.10	5.60	5.85	
<b>Total Establishment Year Expenses</b>		<b>114.65</b>	<b>120.30</b>	<b>320.35</b>	<b>326.00</b>	
<b>ANNUAL OPERATING EXPENSES (costs based on projected yield of 4.0 tonnes/acre (4.4 tons/acre))</b>						
Establishment year expenses — over 7 years (less establishment year sales)		27.60	25.35	8.60	6.35	
Fertility	31 kg/acre nitrogen	33.70	33.70	33.70	33.70	
	crop removal	P <sub>2</sub> O <sub>5</sub>	-	-	-	-
		K <sub>2</sub> O	-	-	-	-
Tractor and machine expenses	fuel (17 L) and lubricants	17.10	17.10	17.10	17.10	
	repairs and maintenance	20.75	20.75	20.75	20.75	
Custom work	fertilizer applications, mixing and delivery	11.00	11.00	11.00	11.00	
Trucking		-	-	-	-	
Removal and storage		81.40	81.40	81.40	81.40	
Twine		-	-	-	-	
Operator labour (self or hired)		10.40	10.40	10.40	10.40	
Interest on operating		-	-	-	-	
<b>Total Annual Operating Expenses</b>		<b>205.70</b>	<b>203.40</b>	<b>186.65</b>	<b>184.40</b>	
<b>REVENUE</b>						
Expected yield _____						
Expected price _____						
<b>Total Revenue (Yield x Price)</b>						
<b>GROSS MARGIN (Revenue – Operating Expenses)</b>						
<b>OVERHEAD EXPENSES</b>						
Machinery	depreciation	43.05	43.05	43.05	43.05	
	interest on investment	19.55	19.55	19.55	19.55	
Land		-	-	-	-	
Other overhead		7.50	7.50	7.50	7.50	
<b>TOTAL EXPENSES</b>		<b>275.80</b>	<b>273.50</b>	<b>256.75</b>	<b>254.50</b>	
Break-even price on your farm (total expenses/expected yield):						

## SOFT RED WINTER WHEAT

<b>OPERATING EXPENSES</b> (costs based on projected yield of 2.2 tonnes/acre (80 bu/acre))			Tillage System		Your Farm Budget
			Conventional	No-Till	
			Sample Costs/Acre	Sample Costs/Acre	
<b>Expenses for Grain</b>					
Seed	140 lb/acre certified treated (1.4–1.7 M seeds/acre)		72.80	72.80	
Fertility	132 kg/ha N		58.00	58.00	
	crop removal	53 kg/ha P <sub>2</sub> O <sub>5</sub> (9.8 kg/tonne removal rate)	22.90	22.90	
		33 kg/ha K <sub>2</sub> O (6.0 kg/tonne removal rate)	10.10	10.10	
Herbicide	broadleaf weeds		8.00	8.00	
Fungicide	fusarium head blight		16.40	16.40	
	leaf disease		10.50	10.50	
Tractor and machine expenses	fuel (14 L conventional, 7 L no till) and lubricants		14.65	7.65	
	repairs and maintenance		19.80	12.20	
Production insurance			7.30	7.30	
Marketing and Grain Financial Protection board fees (\$0.94/tonne)			2.05	2.05	
Custom work	fertilizer application, mixing and delivery		11.00	11.00	
	2 pesticide applications		22.00	22.00	
Added expense for IP			–	–	
Trucking (\$9.00/tonne)			19.60	19.60	
Land rent			–	–	
Operator labour (self or hired)			9.65	5.00	
Interest on operating			9.35	8.75	
<b>Total Operating Expenses — Grain</b>			<b>314.10</b>	<b>294.25</b>	
<b>Expenses for Straw (costs based on projected yield of 2.41 tonnes/acre)</b>					
Fertility	crop removal	10 kg/ha P <sub>2</sub> O <sub>5</sub> (1.7 kg/tonne removal rate)	4.40	4.40	
		72 kg/ha K <sub>2</sub> O (12.0 kg/tonne removal rate)	22.25	22.25	
Tractor and machine expenses	fuel (4 L) and lubricants		4.30	4.30	
	repairs and maintenance		3.75	3.75	
Twine			7.25	7.25	
Other			13.20	13.20	
<b>Total Operating Expenses — Straw</b>			<b>55.15</b>	<b>55.15</b>	
<b>Total Operating Expenses</b>			<b>369.25</b>	<b>349.40</b>	
<b>REVENUE</b>					
Expected wheat yield _____					
Expected wheat price _____					
<b>Total Market Revenue (Yield x Price)</b>					
Additional income from IP					
Program payment					
<b>Total Wheat Revenue</b>					
Expected straw yield _____					
Expected straw price _____					
<b>Total Straw Revenue (Yield x Price)</b>					
<b>Total Revenue</b>					
<b>GROSS MARGIN (Revenue – Operating Expenses)</b>					
<b>OVERHEAD EXPENSES</b>		Conventional Tillage		No-Till	
		Wheat Only	Wheat & Straw	Wheat Only	Wheat & Straw
Machinery	depreciation	40.70	44.05	24.65	28.00
	interest on investment	18.65	20.15	11.55	13.05
Land		–	–	–	–
Other overhead		7.40	8.45	4.85	5.85
<b>TOTAL EXPENSES</b>		<b>380.85</b>	<b>441.90</b>	<b>335.30</b>	<b>396.30</b>
Break-even price on your farm (total expenses/expected yield):					



## HARD RED WINTER WHEAT

<b>OPERATING EXPENSES</b> (costs based on projected yield of 2.0 tonnes/acre (75 bu/acre))			Tillage System		Your Farm Budget	
			Conventional	No-Till		
			Sample Costs/Acre	Sample Costs/Acre		
<b>Expenses for Grain</b>						
Seed	140 lb/acre certified treated (1.4–1.7 M seeds/acre)		76.25	76.25		
Fertility	165 kg/ha N		72.50	72.50		
	crop removal	50 kg/ha P <sub>2</sub> O <sub>5</sub> (9.8 kg/tonne removal rate)	21.45	21.45		
		31 kg/ha K <sub>2</sub> O (6.0 kg/tonne removal rate)	9.45	9.45		
Herbicide	broadleaf weeds		8.00	8.00		
	other weed control, if required		–	–		
Fungicide	fusarium head blight		16.40	16.40		
	leaf disease		10.50	10.50		
Tractor and machine expenses	fuel (14 L conventional, 7 L no till) and lubricants		14.65	7.65		
	repairs and maintenance		19.80	12.20		
Production insurance			7.25	7.25		
Marketing board and Grain Financial Protection fees (\$0.94/tonne)			1.90	1.90		
Custom work	2 fertilizer applications, mixing and delivery		22.00	22.00		
	2 pesticide applications		22.00	22.00		
Added expense for IP			–	–		
Trucking (\$9.00/tonne)			18.35	18.35		
Land rent			–	–		
Operator labour (self or hired)			9.65	5.00		
Interest on operating			10.15	9.55		
<b>Total Operating Expenses — Grain</b>			<b>340.30</b>	<b>320.45</b>		
<b>Expenses for Straw (costs based on projected yield of 2.41 tonnes/acre)</b>						
Fertility	crop removal	10 kg/ha P <sub>2</sub> O <sub>5</sub> (1.7 kg/tonne removal rate)	4.40	4.40		
		72 kg/ha K <sub>2</sub> O (12.0 kg/tonne removal rate)	22.25	22.25		
Tractor and machine expenses	fuel (4 L) and lubricants		4.30	4.30		
	repairs and maintenance		3.75	3.75		
Twine			7.25	7.25		
Other			13.20	13.20		
<b>Total Operating Expenses — Straw</b>			<b>55.15</b>	<b>55.15</b>		
<b>Total Operating Expenses</b>			<b>395.45</b>	<b>375.60</b>		
<b>REVENUE</b>						
Expected wheat yield _____						
Expected wheat price _____						
<b>Total Market Revenue (Yield x Price)</b>						
Additional income from IP						
Program payment						
<b>Total Wheat Revenue</b>						
Expected straw yield _____						
Expected straw price _____						
<b>Total Straw Revenue (Yield x Price)</b>						
<b>Total Revenue</b>						
<b>GROSS MARGIN (Revenue – Operating Expenses)</b>						
<b>OVERHEAD EXPENSES</b>			Conventional Tillage		No-Till	
			Wheat Only	Wheat & Straw	Wheat Only	Wheat & Straw
Machinery	depreciation		40.70	44.05	24.65	28.00
	interest on investment		18.65	20.15	11.55	13.05
Land			–	–	–	–
Other overhead			7.40	8.45	4.85	5.85
<b>TOTAL EXPENSES</b>			<b>407.05</b>	<b>468.10</b>	<b>361.50</b>	<b>422.50</b>
Break-even price on your farm (total expenses/expected yield):						

## HARD RED SPRING WHEAT

OPERATING EXPENSES (costs based on projected yield of 1.4 tonnes/acre (51.0 bu/acre))			Sample Costs/ Acre	Your Farm Budget
<b>Expenses for Grain</b>				
Seed	130 lb/acre certified treated (1.4–1.6 M seeds/acre)		69.25	
Fertility	90 kg/ha N (200 kg/ha urea)		39.55	
	crop removal	34 kg/ha P <sub>2</sub> O <sub>5</sub> (9.8 kg/tonne removal rate)	14.70	
		21 kg/ha K <sub>2</sub> O (6.0 kg/tonne removal rate)	6.45	
Herbicide	broadleaf weeds		8.00	
	grass or wild oat control, if required		–	
	other weed control, if required		–	
Fungicide	fusarium head blight		16.40	
Tractor and machine expenses	fuel (14 L) and lubricants		14.65	
	repairs and maintenance		19.80	
Production insurance			8.40	
Marketing board and Grain Financial Protection fees (\$0.94/tonne)			1.30	
Custom work	fertilizer application, mixing and delivery		11.00	
	2 pesticide applications		22.00	
	other		–	
Added expense for IP			–	
Trucking (\$9.00/tonne)			12.55	
Land rent			–	
Operator labour (self or hired)			9.65	
Interest on operating			4.70	
<b>Total Operating Expenses — Grain</b>			<b>258.40</b>	
<b>Expenses for Straw (costs based on projected yield of 2.14 tonnes/acre)</b>				
Fertility	crop removal	9 kg/ha P <sub>2</sub> O <sub>5</sub> (1.7 kg/tonne removal rate)	3.90	
		64 kg/ha K <sub>2</sub> O (12.0 kg/tonne removal rate)	19.75	
Tractor and machine expenses	fuel (4 L) and lubricants		4.30	
	repairs and maintenance		3.75	
Twine			6.45	
Other			13.20	
<b>Total Operating Expenses — Straw</b>			<b>51.35</b>	
<b>Total Operating Expenses</b>			<b>309.75</b>	
<b>REVENUE</b>				
Expected wheat yield _____				
Expected wheat price _____				
<b>Total Market Revenue (Yield x Price)</b>				
Additional income from IP				
Program payment				
<b>Total Wheat Revenue</b>				
Expected straw yield _____				
Expected straw price _____				
<b>Total Straw Revenue (Yield x Price)</b>				
<b>Total Revenue</b>				
<b>GROSS MARGIN (Revenue – Operating Expenses)</b>				
<b>OVERHEAD EXPENSES</b>			<b>Wheat Only</b>	<b>Wheat &amp; Straw</b>
Machinery	depreciation		40.70	44.05
	interest on investment		18.65	20.15
Land			–	–
Other overhead			7.40	8.45
<b>TOTAL EXPENSES</b>			<b>325.15</b>	<b>382.40</b>
Break-even price on your farm (total expenses/expected yield):				

## WHITE/BLACK BEANS

OPERATING EXPENSES (costs based on projected yield of 20 cwt/acre)		Sample Costs/ Acre	Your Farm Budget
Seed	125,000–150,000 seeds/acre (60–70 lb/acre, 15–20-in. rows) certified, treated seed (with fungicide plus Cruiser insecticide)	92.30	
Fertility	40 kg/ha N	17.60	
	crop removal	12.55	
	30 kg/ha P <sub>2</sub> O <sub>5</sub> (14.0 kg/tonne removal rate) 30 kg/ha K <sub>2</sub> O (14.0 kg/tonne removal rate)	8.95	
Herbicide	annual grass and broadleaf weeds	36.60	
Crop pre-harvest		18.55	
Fungicide, if required	white mould	50.25	
	anthracnose	17.25	
Insecticide		–	
Tractor and machine expenses	fuel (21 L) and lubricants	21.15	
	repairs and maintenance	21.15	
Marketing board fees (\$6.80/tonne)		6.25	
Production insurance		17.35	
Custom work	fertilizer application, mixing and delivery	11.00	
	4 pesticide applications	44.00	
Trucking (\$9.00/tonne)		8.30	
Drying		–	
Land rent		–	
Operator labour (self or hired)		15.70	
Interest on operating		7.40	
<b>Total Operating Expenses</b>		<b>406.35</b>	
REVENUE			
Expected yield _____			
Expected price _____			
<b>Total Market Revenue (Yield x Price)</b>			
Less pick charges (typically 2%–4%)			
Program payment			
<b>Total Revenue</b>			
<b>GROSS MARGIN (Revenue – Operating Expenses)</b>			
OVERHEAD EXPENSES			
Machinery	depreciation	45.65	
	interest on investment	19.80	
Land		–	
Other overhead		6.65	
<b>TOTAL EXPENSES</b>		<b>478.45</b>	
Break-even price on your farm (total expenses/expected yield):			

## ORGANIC — GRAIN CORN AND SOYBEANS\*

<b>OPERATING EXPENSES</b> (costs based on projected yield of 2.67 tonnes/acre (105 bu/acre) grain corn; 0.83 tonnes/acre (31 bu/acre) soybeans)		Grain Corn	Soybeans	Your Farm Budget
		Sample Costs/ Acre	Sample Costs/ Acre	
Seed	grain corn: 30,000 kernels, certified, organic; soybeans: 180,000 seeds/acre, certified, organic in 21–30-in. rows	93.40	65.05	
Seed inoculant		–	2.00	
Fertility	manure, compost**	100.00	–	
Herbicide		–	–	
Insecticide		–	–	
Fungicide		–	–	
Soil maintenance (cover crop, fallow etc.)*		50.00	50.00	
Tractor and machine expenses	fuel (24 L corn, 26 L soybeans) and lubricants	24.60	26.35	
	repairs and maintenance	23.80	29.45	
Marketing board and Grain Financial Protection fees (\$0.469/tonne (corn), \$1.56/tonne (soybeans))		1.25	1.30	
Certification fees		3.00	3.00	
Production insurance		15.55	16.90	
Custom work		–	–	
Added expense for handling organic crops		–	–	
Trucking (\$9.00/tonne corn, \$9.00/tonne soybeans)		24.00	7.45	
Drying (\$19.73/tonne corn, \$11.17/tonne soybeans)		52.65	9.25	
Storage (\$2.06/tonne/month x 4 months)		22.00	6.85	
Land rent		–	–	
Operator labour (self or hired)		19.70	20.25	
Labour — hand weed		44.50	66.70	
Interest on operating		8.80	5.65	
<b>Total Operating Expenses</b>		<b>483.25</b>	<b>310.20</b>	
<b>REVENUE</b>				
Expected yield _____				
Expected price _____				
		<b>Total Market Revenue (Yield x Price)</b>		
Program payment				
		<b>Total Revenue</b>		
		<b>GROSS MARGIN (Revenue – Operating Expenses)</b>		
<b>OVERHEAD EXPENSES</b>				
Machinery	depreciation	51.85	62.60	
	interest on investment	22.30	27.65	
Land		–	–	
Other overhead		7.20	9.80	
<b>TOTAL EXPENSES</b>		<b>564.60</b>	<b>410.25</b>	
		Break-even price on your farm (total expenses/expected yield):		

\* Organic budget estimates do not include transition period costs.

\*\* Manure, compost and cover crop estimates are highly variable, depending on individual farm situations.

## ORGANIC — WINTER WHEAT AND SPELT\*

OPERATING EXPENSES (costs based on projected yield of 1.26 tonnes/acre (46 bu/acre) wheat; 0.9 tonnes/acre spelt)		Winter Wheat	Spelt	Your Farm Budget	
		Sample Costs/Acre	Sample Costs/Acre		
Seed	wheat: 150 lb/acre certified, organic (1.4–1.7 M seeds/acre); spelt: 180 lb/acre certified, organic	70.90	127.65		
Fertility	manure, compost**	100.00	100.00		
Herbicide		–	–		
Fungicide		–	–		
Soil maintenance (cover crop, fallow, etc.)**		50.00	50.00		
Tractor and machine expenses	fuel (17 L) and lubricants	17.10	17.10		
	repairs and maintenance	18.50	18.50		
Production insurance		13.65	9.70		
Marketing board and Grain Financial Protection fee (\$0.94/tonne (wheat))		1.20	–		
Certification fees		3.00	3.00		
Custom work		–	–		
Added expense for handling organic crops		–	–		
Trucking (\$9.00/tonne)		11.35	8.15		
Land rent		–	–		
Operator labour (self or hired)		12.35	12.35		
Labour — hand weed		33.35	33.35		
Interest on operating		10.20	11.65		
<b>Total Operating Expenses — Grain</b>		<b>341.60</b>	<b>391.55</b>		
<b>Expenses for Straw (costs based on projected yield of 2.41 tonnes/acre)</b>					
Tractor and machine expenses	fuel (4 L) and lubricants	4.30	4.30		
	repairs and maintenance	3.75	3.75		
Twine		7.25	7.25		
Other		13.20	13.20		
<b>Total Operating Expenses — Straw</b>		<b>28.50</b>	<b>28.50</b>		
<b>Total Operating Expenses</b>		<b>370.10</b>	<b>420.05</b>		
<b>REVENUE</b>					
Expected yield _____					
Expected price _____					
<b>Total Market Revenue (Yield x Price)</b>					
Program payment _____					
<b>Total Revenue</b>					
Expected straw yield _____					
Expected straw price _____					
<b>Total Straw Revenue (Yield x Price)</b>					
<b>Total Revenue</b>					
<b>GROSS MARGIN (Revenue – Operating Expenses)</b>					
OVERHEAD EXPENSES		Wheat Only	Wheat & Straw	Spelt Only	Spelt & Straw
Machinery	depreciation	39.40	42.75	39.40	42.75
	interest on investment	17.35	18.85	17.35	18.85
Land		–	–	–	–
Other overhead		6.10	7.15	6.10	7.15
<b>TOTAL EXPENSES</b>		<b>404.45</b>	<b>438.85</b>	<b>454.40</b>	<b>488.80</b>
Break-even price on your farm (total expenses/expected yield):					

\* Organic budget estimates do not include transition period costs.

\*\* Manure, compost and cover crop cost estimates are highly variable, depending on individual farm situations.

## ORGANIC — BARLEY AND OATS\*

OPERATING EXPENSES (costs based on projected yield of 1.2 tonnes/acre (55 bu/acre) barley; 0.96 tonnes/acre (62 bu/acre) oats)		Barley	Oats	Your Farm Budget	
		Sample Costs/Acre	Sample Costs/Acre		
<b>Expenses for Grain</b>					
Seed	barley: 150 lb/acre certified, organic; oats: 105 lb/acre certified, organic	103.65	56.65		
Fertility	manure/compost**	-	-		
Herbicide		-	-		
Fungicide		-	-		
Soil maintenance (cover crop, fallow etc.)**		50.00	50.00		
Tractor and machine expenses	fuel (17 L) and lubricants	17.95	17.95		
	repairs and maintenance	19.25	19.25		
Production insurance		8.10	8.10		
Marketing board fee (\$1.33/tonne (barley), \$1.59/tonne (oats))		1.60	1.55		
Certification fees		3.00	3.00		
Custom work		-	-		
Added expense for handling organic crops		-	-		
Trucking (\$9.00/tonne)		10.80	8.65		
Land rent		-	-		
Operator labour (self or hired)		14.65	14.65		
Labour — hand weed		33.35	33.35		
Interest on operating		8.05	6.55		
<b>Total Operating Expenses — Grain</b>		<b>270.40</b>	<b>219.70</b>		
<b>Expenses for Straw (costs based on projected yield of 1.89 tonnes/acre (barley), 2.21 tonnes/acre (oats))</b>					
Tractor and machine expenses	fuel (4 L) and lubricants	4.30	4.30		
	repairs and maintenance	3.75	3.75		
Twine		5.70	6.65		
Other		13.20	13.20		
<b>Total Operating Expenses — Straw</b>		<b>26.95</b>	<b>27.90</b>		
<b>Total Operating Expenses</b>		<b>297.35</b>	<b>247.60</b>		
<b>REVENUE</b>					
Expected yield _____					
Expected price _____					
<b>Total Market Revenue (Yield x Price)</b>					
Program payment _____					
<b>Total Revenue</b>					
Expected straw yield _____					
Expected straw price _____					
<b>Total Straw Revenue (Yield x Price)</b>					
<b>Total Revenue</b>					
<b>GROSS MARGIN (Revenue – Operating Expenses)</b>					
<b>OVERHEAD EXPENSES</b>		<b>Barley Only</b>	<b>Barley &amp; Straw</b>	<b>Oats Only</b>	<b>Oats &amp; Straw</b>
Machinery	depreciation	41.35	44.70	41.35	44.70
	interest on investment	18.05	19.50	18.05	19.50
Land		-	-	-	-
Other overhead		6.15	7.15	6.15	7.15
<b>TOTAL EXPENSES</b>		<b>335.95</b>	<b>368.70</b>	<b>285.25</b>	<b>318.95</b>
Break-even price on your farm (total expenses/expected yield):					

\* Organic budget estimates do not include transition period costs.

\*\* Manure, compost and cover crop cost estimates are highly variable, depending on individual farm situations.

## OMAFRA RESOURCES

### Selected Factsheets and Publications

*Agronomy Guide for Field Crops*, Publication 811

*Budgeting Farm Machinery Costs*

*Field Crop Protection Guide*, Publication 812

*Guide to Custom Farmwork and Short-Term Equipment Rental*

*Guide to Weed Control*, Publication 75

*Soil Fertility Handbook*, Publication 611

*Ontario Farm Record Book*, Publication 540

A full listing of publications is available on the OMAFRA website — [ontario.ca/omafra](http://ontario.ca/omafra) — and can be ordered through ServiceOntario, available:

- online at [ontario.ca/publications](http://ontario.ca/publications)
- by telephone to the ServiceOntario Contact Centre, Monday to Friday, 8:30 a.m. to 5:00 p.m.  
416-326-5300  
416-325-3408 (TTY)  
1-800-668-9938 Toll-free across Canada  
1-800-268-7095 TTY Toll-free across Ontario

OMAFRA has excellent tools and information to help manage your farm business in the Agricultural Business Management section at [ontario.ca/agbusiness](http://ontario.ca/agbusiness). Results of the Custom Farmwork and Equipment Rental Rates survey are available here. The *Ontario Enterprise Budgets*, also found on the OMAFRA website, has budgets for cost of production, including field crops. You can download a Budgeting Tool Excel file, modify the numbers to reflect your operation, and the file will complete the calculations. The Budgeting Tool also lets you assess the potential effect of production and marketing risk factors and risk management strategies.

Publication 60, *Field Crop Budgets*, is updated by John Molenhuis, Business Analysis and Cost of Production Specialist, OMAFRA, Brighton ([john.molenhuis@ontario.ca](mailto:john.molenhuis@ontario.ca)), and the OMAFRA Field Crops Unit.

## METRIC CONVERSION TABLES

### Application rate conversions (approximate)

#### Metric to Imperial

litres per hectare  $\times 0.09 =$  gallons per acre  
 litres per hectare  $\times 0.36 =$  quarts per acre  
 litres per hectare  $\times 0.71 =$  pints per acre  
 millilitres per hectare  $\times 0.015 =$  fluid ounces per acre  
 grams per hectare  $\times 0.015 =$  ounces per acre  
 kilograms per hectare  $\times 0.89 =$  pounds per acre  
 tonnes per hectare  $\times 0.45 =$  tons per acre

#### Imperial to metric

gallons per acre  $\times 11.23 =$  litres per hectare (L/ha)  
 quarts per acre  $\times 2.8 =$  litres per hectare (L/ha)  
 pints per acre  $\times 1.4 =$  litres per hectare (L/ha)  
 fluid ounces per acre  $\times 70 =$  millilitres per hectare (mL/ha)  
 tons per acre  $\times 2.24 =$  tonnes per hectare (t/ha)  
 pounds per acre  $\times 1.12 =$  kilograms per hectare (kg/ha)  
 ounces per acre  $\times 70 =$  grams per hectare (g/ha)

#### Liquid equivalents

litres/hectare	approximate gallons/acre
50 L/ha	= 5 gal/acre
100 L/ha	= 10 gal/acre
150 L/ha	= 15 gal/acre
200 L/ha	= 20 gal/acre
250 L/ha	= 25 gal/acre
300 L/ha	= 30 gal/acre

#### Dry weight equivalents

grams or kilograms/hectare	ounces or pounds/acre
100 g/ha	= 1½ oz/acre
200 g/ha	= 3 oz/acre
300 g/ha	= 4¼ oz/acre
500 g/ha	= 7 oz/acre
700 g/ha	= 10 oz/acre
1.10 kg/ha	= 1 lb/acre
1.50 kg/ha	= 1¾ lb/acre
2.00 kg/ha	= 1¾ lb/acre
2.50 kg/ha	= 2¼ lb/acre
3.25 kg/ha	= 3 lb/acre
4.00 kg/ha	= 3½ lb/acre
5.00 kg/ha	= 4½ lb/acre
6.00 kg/ha	= 5¼ lb/acre
7.50 kg/ha	= 6¾ lb/acre
9.00 kg/ha	= 8 lb/acre
11.00 kg/ha	= 10 lb/acre
13.00 kg/ha	= 11½ lb/acre
15.00 kg/ha	= 13½ lb/acre

#### Handy metric conversion factor

litres per hectare  $\times 0.4 =$  litres per acre  
 kilograms per hectare  $\times 0.4 =$  kilograms per acre

### Conversion tables — imperial to metric (approximate)

Area	Volume (dry)	Volume (liquid)	Weight
1 square foot = 0.09 m <sup>2</sup>	1 cubic yard = 0.76 m <sup>3</sup>	1 fluid ounce (imp.) = 28.41 mL	1 ounce = 28.35 g
1 square yard = 0.84 m <sup>2</sup>	1 bushel = 36.37 L	1 pint (imp.) = 0.57 L	1 pound = 453.6 g
1 acre = 0.40 ha		1 gallon (imp.) = 4.55 L	1 ton = 0.91 tonne
		1 gallon (U.S.) = 3.79 L	

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