

2012 FIELD CROP BUDGETS

Publication 60

1. Alfalfa-Timothy Hay
2. Barley
3. Spring Canola
4. Winter Canola
5. Coloured Beans
6. Grain Corn
7. Silage Corn
8. Flax
9. Oats
10. Soybeans
11. Soft Winter Wheat
12. Hard Red Winter Wheat
13. Hard Red Spring Wheat
14. White/Black Beans
15. Organic – Grain Corn and Soybeans
16. Organic – Winter Wheat and Spelt
17. Organic – Barley and Oats

These crop budgets are a simple format 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 www.ontario.ca/agbusiness under *Cost of Production Budgets*.

2012 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 — for example, increased seed, weed control, storage and equipment cleaning costs. Some of the budgets provide a line item for this.

Interest rates were calculated at 4.0% 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 crop 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 for nitrogen requirement to crops following a legume crop

Type of crop	N requirement reduction (kg/ha)	
	Corn	Other crops
Less than $\frac{1}{3}$ legume	0	0
$\frac{1}{3}$ to $\frac{1}{2}$ legume	55	55
$\frac{1}{2}$ or more legume	110	110
Perennial legumes seeded/ploughed in same year	80	45 ¹
Soybean and field bean residue	30	0

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

2012 Crop Comparison Summary Table for Selected Field Crops (\$/acre)*

	Corn Conventional Tillage	Herbicide- Tolerant Spring Canola	Non-GMO Soybeans No till	Roundup Ready Soybeans No till	Coloured Beans	White/ Black Beans	Soft Winter Wheat No till	Oats (Southern Ontario)	Hard Red Spring Wheat
Seed	103.60	58.90	44.35	77.35	154.00	70.00	47.15	32.30	55.70
Fertilizer	123.85	91.25	28.45	28.45	28.45	28.45	80.85	39.30	74.20
Pesticides	13.05	11.50	43.65	13.50	101.00	101.00	23.00	23.00	23.00
Total Inputs	240.50	161.65	116.45	119.30	283.45	199.45	151.00	94.60	152.90
Tillage	49.75	43.80			73.10	49.65		43.80	43.80
Planting	19.90	19.00	24.00	24.00	20.00	25.00	24.00	19.00	19.00
Spraying	10.20	10.20	20.40	20.40	30.55	40.75	20.40	20.40	20.40
Fertilizing	10.20	10.20	10.20	10.20	10.20	10.20	10.20	10.20	10.20
Harvesting & trucking	76.90	50.30	50.10	50.05	90.95	58.60	57.05	49.55	50.30
Total Machinery	166.95	133.50	104.70	104.65	224.80	184.20	111.65	142.95	143.70
Drying	75.20		12.15	12.15					
Crop insurance	13.45	15.25	11.25	11.25	27.90	19.10	12.20	5.95	9.90
Interest @ 4.0%	9.55	5.15	4.40	4.45	8.55	7.25	8.05	3.25	5.10
Marketing & other	32.95	3.65	10.70	10.70	4.30	6.90	4.20		2.60
Total Costs	538.60	319.20	259.65	262.50	549.00	416.90	287.10	246.75	314.20
Yield									
Price									
Gross Return									
Net Margin/Acre									
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.

ALFALFA-TIMOTHY HAY

DIRECT SEEDING ESTABLISHMENT	Sample Costs/Acre	Your Farm Budget
Seed – 12 lb/acre alfalfa	51.65	
Other seed (timothy – 4 lb/acre)	8.75	
Inoculant	1.05	
Fertilizer – 40 kg/ha P	20.40	
– 30 kg/ha K	13.70	
Herbicide – burndown and broadleaf control	22.95	
Crop insurance	2.40	
Tractor and Machine Expenses		
Fuel (32 L) and lubricants	37.00	
Repairs	20.45	
Custom work – (2 pesticide applications)	20.40	
– (2 fertilizer applications, mixing and delivery)	20.45	
– (bale wrapping - plastic – 50% yield)	30.85	
Twine		
Operator labour (self or hired)	27.50	
Interest	10.00	
Total Establishment Year Expenses	287.55	
ANNUAL OPERATING EXPENSES (costs based on projected yield of 3.5 tonne/acre)		
Establishment year expenses – over 4 years (less establishment year sales)	24.35	
Fertilizer – 130 kg/ha K (applied in fall)	59.35	
– other		
Tractor and Machine Expenses		
Fuel (19 L) and lubricants	22.35	
Repairs	14.90	
Twine		
Crop insurance	7.90	
Custom work – (2 fertilizer applications, mixing and delivery)	20.45	
– (bale wrapping – plastic)	61.70	
Other costs		
Land rent		
Operator labour (self or hired)	26.25	
Interest on operating	5.00	
Total Annual Operating Expenses	242.25	
REVENUE		
Expected yield _____		
Expected price _____		
Total Revenue (Yield × Price)		
GROSS MARGIN (Revenue – Operating Expenses)		
OVERHEAD EXPENSES		
Machinery – depreciation	19.00	
– interest on investment	11.40	
Land		
Other overhead	4.75	
NITROGEN CREDIT TO FOLLOWING CROPS IN ROTATION		
Nitrogen credit (\$/acre = N reduction (from Table 1) × price of N)		
Grain yield increase		
Total benefits/year		
TOTAL EXPENSES	277.40	

BARLEY

OPERATING EXPENSES (costs based on projected yield of 1.5 tonne/acre (70 bu/acre))	Sample Costs/Acre	Your Farm Budget
Seed – 120 lb/acre certified treated (1.0–1.4 M seeds/acre)	43.65	
Fertilizer – 74 kg/ha N (2,800 or less Corn Heat Units (CHUs))	41.15	
– 46 kg/ha N (2,800 or more CHUs)	25.70	
– 20 kg/ha P	10.20	
– 30 kg/ha K	13.70	
Herbicide – annual grasses and broadleaf weeds	6.60	
– other		
Fungicide, if required		
Tractor and Machine Expenses		
Fuel (17 L) and lubricants	19.55	
Repairs and maintenance	15.55	
Crop insurance	5.95	
Custom work – (fertilizer application, mixing and delivery)	10.20	
– (pesticide application)	10.20	
– other		
Trucking (\$8.35/tonne)	12.55	
Storage		
Land rent		
Operator labour (self or hired)	12.45	
Interest on operating	5.45	
Total Operating Expenses – Grain (2,800 or less CHUs)	207.20	
Total Operating Expenses – Grain (2,800 or more CHUs)	191.75	
Expenses for Straw		
Tractor and Machine Expenses		
Fuel (3 L) and lubricants	3.95	
Repairs and maintenance	3.25	
Twine	2.80	
Other	11.55	
Total Operating Expenses – Straw	21.55	
Total Operating Expenses (2,800 or less CHUs)	228.75	
Total Operating Expenses (2,800 or more CHUs)	213.30	
REVENUE		
Expected barley yield _____		
Expected barley price _____		
Total Market Revenue (Yield × Price)		
Program payment _____		
Total Barley Revenue		
Expected straw yield _____		
Expected straw price _____		
Total Straw Revenue (Yield × Price)		
Total Revenue		
GROSS MARGIN (Revenue – Operating Expenses)		
OVERHEAD EXPENSES		
	Barley Only	Barley + Straw
Machinery – depreciation	29.05	33.20
– interest on investment	14.45	16.45
Land		
Other overhead	11.25	12.30
TOTAL EXPENSES (2,800 or less CHUs)	261.95	290.70
TOTAL EXPENSES (2,800 or more CHUs)	246.50	275.25
Break-even price on your farm is: (total expenses/expected yield) _____		

SPRING CANOLA

	Herbicide Tolerant	Your Farm Budget
OPERATING EXPENSES		
(costs based on projected yield of 0.91 tonne/acre (2,000 lb/acre))		
Seed – 5 lb/acre – hybrid, treated	58.90	
Fertilizer – 120 kg/ha N (210 kg/ha urea + 112 kg/ha ammonium sulphate) ¹	71.90	
– 20 kg/ha P	10.20	
– 20 kg/ha K	9.15	
Herbicide – preplant, incorporated		
– mustard control, if required		
– other weed control	11.50	
Technology use agreement		
Insecticide, if required		
Fungicide, if required		
Tractor and Machine Expenses		
Fuel (17 L) and lubricants	20.30	
Repairs and maintenance	17.25	
Marketing fees (\$4.00/tonne)	3.65	
Crop insurance	15.25	
Custom work – (fertilizer application, mixing and delivery)	10.20	
– (pesticide application)	10.20	
– other		
Trucking (\$8.35/tonne)	7.60	
Storage		
Land rent		
Operator labour (self or hired)	11.05	
Interest on operating	5.15	
Total Operating Expenses	262.30	
REVENUE		
Expected yield _____		
Expected price _____		
Total Market Revenue (Yield × Price)		
Program payment		
Total Revenue		
GROSS MARGIN (Revenue – Operating Expenses)		
OVERHEAD EXPENSES		
Machinery – depreciation	29.95	
– interest on investment	15.35	
Land		
Other overhead	11.60	
TOTAL EXPENSES	319.20	
Break-even price on your farm is: (total expenses/expected yield)		
¹ Nitrogen rate is based on nitrogen price of \$ 1.40/kg (\$ 0.64/lb) N and a canola price of \$505/tonne. 112 kg/ha ammonium sulphate (21-0-0-24) supplies 27 kg/ha sulphur.		
See the canola section of the OMAFRA <i>Agronomy Guide for Field Crops</i> , 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 tonne/acre)	Sample Costs/Acre	Your Farm Budget
Seed* – 3.5 lb/acre – hybrid, treated	34.25	
Fertilizer** – 200 kg/ha N (383 kg/ha urea + 113 kg/ha ammonium sulphate) ¹	116.55	
– 20 kg/ha P	10.20	
– 20 kg/ha K	9.15	
Herbicide – volunteer cereal control	11.10	
Insecticide, if required (cabbage seedpod weevil)	14.55	
Fungicide, if required		
Tractor and Machine Expenses		
Fuel (13 L), lubricants	15.20	
Repairs and maintenance	13.85	
Marketing fees (\$4.00/tonne)	5.20	
Crop insurance	15.25	
Custom work – (fertilizer application, mixing and delivery)	10.20	
– (2 pesticide applications)	20.40	
– other		
Trucking (\$8.35/tonne)	10.85	
Storage		
Land rent		
Operator labour (self or hired)	6.85	
Interest on operating	5.85	
Total Operating Expenses	299.45	
REVENUE		
Expected yield _____		
Expected price _____		
Total Market Revenue (Yield × Price)		
Program payment _____		
Total Revenue		
GROSS MARGIN (Revenue – Operating Expenses)		
OVERHEAD EXPENSES		
Machinery – depreciation	22.45	
– interest on investment	12.05	
Land		
Other overhead	8.70	
TOTAL EXPENSES (Hybrid)	342.65	

* Seeding rate recommended range is 3–5 lb/acre. The lower rate may be difficult to achieve with some seed drills.

** Fertilizer recommendation is for a field testing low in phosphorus and potassium. Additional nitrogen in the fall may be beneficial if seeding is delayed.

¹ 112 kg/ha ammonium sulphate (21-0-0-24) supplies 27 kg/ha sulphur.

COLOURED BEANS

OPERATING EXPENSES (costs based on projected yield of 19 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)	154.00	_____
Fertilizer – nitrogen, if required		_____
– 20 kg/ha P	10.20	_____
– 40 kg/ha K	18.25	_____
Herbicide – annual grass and broadleaf weeds	34.40	_____
– other weed control, if required		_____
Insecticide		_____
Fungicide, if required – white mould	50.25	_____
Crop pre-harvest	6.75	_____
Tractor and Machine Expenses		
Fuel (31 L) and lubricants	36.05	_____
Repairs and maintenance	26.85	_____
Marketing fees (\$5.00/tonne)	4.30	_____
Crop insurance	27.90	_____
Custom work – (fertilizer application, mixing and delivery)	10.20	_____
– (3 pesticide applications)	30.55	_____
Trucking (\$8.15/tonne)	7.20	_____
Drying		_____
Land rent		_____
Operator labour (self or hired)	23.05	_____
Interest on operating	8.55	_____
Total Operating Expenses	458.10	_____
REVENUE		
Expected yield _____		_____
Expected price _____		_____
Total Market Revenue (Yield × Price)		_____
Less pick charges (typically 2%–4%)		_____
Program payment		_____
Total Revenue		_____
GROSS MARGIN (Revenue – Operating Expenses)		
OVERHEAD EXPENSES		
Machinery – depreciation	50.10	_____
– interest on investment	22.35	_____
Land		_____
Other overhead	18.40	_____
TOTAL EXPENSES	548.95	_____
Break-even price on your farm is: (total expenses/expected yield) _____		

GRAIN CORN

	Tillage System			Your Farm Budget
	Conventional	Minimum Till	No-Till	
OPERATING EXPENSES				
(costs based on projected yield of 3.81 tonne/acre (150 bu/acre))				
Seed – 32,000 kernels – treated – RR	106.45	106.45	106.45	
(average – 32,000 kernels – treated – Bt	90.30	90.30	90.30	
cost of – 32,000 kernels – treated – Multi-trait 3 hybrids)	113.95	113.95	113.95	
Fertilizer ¹ – 155 kg/ha N (554 kg/ha of 28-0-0 U.A.N)	90.85	90.85	90.85	
– 20 kg/ha P	10.20	10.20	10.20	
– 50 kg/ha K	22.80	22.80	22.80	
Herbicide – annual grass and broadleaf weeds	13.05	13.05	13.05	
– burndown			6.75	
– other weed control, if required				
Insecticide, if required				
Tractor and Machine Expenses				
Fuel (25 L conventional, 16 L minimum, 10 L no till) and lubricant	28.00	20.25	13.35	
Repairs and maintenance	15.85	14.60	10.45	
Marketing fees (\$0.40/tonne)	1.50	1.50	1.50	
Crop insurance	13.45	13.45	13.45	
Custom work – (fertilizer application, mixing and delivery)	10.20	10.20	10.20	
– (pesticide applications)	10.20	10.20	20.40	
– other				
Trucking (\$9.06/tonne)	34.50	34.50	34.50	
Drying (\$19.75/tonne, 8 points)	75.20	75.20	75.20	
Land rent				
Operator labour (self or hired)	15.50	11.50	8.10	
Storage (\$2.06/tonne/month × 4 months)	31.45	31.45	31.45	
Interest on operating	9.55	9.25	9.30	
Total Operating Expenses	485.85	472.55	475.10	
REVENUE				
Expected yield _____				
Expected price _____				
Total Market Revenue (Yield × Price)				
Program payment				
Total Revenue				
GROSS MARGIN (Revenue – Operating Expenses)				
OVERHEAD EXPENSES				
Machinery – depreciation	28.45	27.30	18.85	
– interest on investment	13.05	12.20	8.40	
Land				
Other overhead	11.20	10.25	7.10	
TOTAL EXPENSES	538.55	522.30	509.45	
Break-even price on your farm is: (total expenses/expected yield) _____				

¹ Nitrogen rate is based on the nitrogen rate calculator. Nitrogen recommendation is for corn grown in southwestern/central Ontario, 2,800 HU, clay loam soil, following wheat with straw removed, with projected corn yield of 150 bu/acre, and nitrogen cost of \$1.47/kg and corn price of \$6.00/bu.

See www.gocorn.net for more accurate nitrogen requirements for corn. A CD version is available from OMAFRA's Agricultural Information Contact Centre at 1-877-424-1300.

SILAGE CORN

OPERATING EXPENSES	Sample Costs/Acre	Your Farm Budget
Seed – 31,000 kernels, treated	103.15	
Fertilizer ¹ – 155 kg/ha N (554 kg/ha of 28-0-0 U.A.N)	90.85	
– 20 kg/ha P	10.20	
– 50 kg/ha K	22.80	
Herbicide – annual grass and broadleaf weeds	6.75	
– other weed control, if required		
Insecticide, if required		
Tractor and Machine Expenses		
Fuel (37 L) and lubricants	43.85	
Repairs and maintenance	21.85	
Silo repair and maintenance		
Crop insurance	13.45	
Silage inoculant		
Custom work – (fertilizer application, mixing and delivery)	10.20	
– (pesticide applications)	10.20	
– other		
Land rent		
Operator labour (self or hired)	31.00	
Interest on operating	7.30	
Total Operating Expenses	371.60	
REVENUE		
Expected yield _____		
Expected price _____		
Total Market Revenue (Yield × Price)		
Program payment		
Total Revenue		
GROSS MARGIN (Revenue – Operating Expenses)		
OVERHEAD EXPENSES		
Machinery – depreciation	37.95	
– interest on investment	20.50	
Land		
Other overhead	8.80	
TOTAL EXPENSES	438.85	
Breakeven price on your farm is: (total expenses/expected yield) _____		

¹ Nitrogen rate is based on the nitrogen rate calculator. Nitrogen recommendation is for corn grown in southwestern/central Ontario, 2,800 HU, clay loam soil, following wheat with straw removed, with projected corn yield of 150 bu/acre, and nitrogen cost of \$1.47/kg and corn price of \$6.00/bu.

See www.gocorn.net for more accurate nitrogen requirements for corn. A CD version is available from OMAFRA's Agricultural Information Contact Centre at 1-877-424-1300.

FLAX

OPERATING EXPENSES (costs based on projected yield of 0.71 tonne/acre)	Sample Costs/Acre	Your Farm Budget
Seed – 37.5 lb/acre certified, treated	22.20	
Fertilizer – 45 kg/ha N	25.15	
– 20 kg/ha P	10.20	
– 20 kg/ha K	9.15	
Herbicide – broadleaf weed control	6.60	
– grass weed control, if required	8.40	
– dessicant	6.75	
Fungicide		
Tractor and Machine Expenses		
Fuel (17 L) and lubricants	19.55	
Repairs and maintenance	15.55	
Crop insurance		
Custom work – (fertilizer application, mixing & delivery)	10.20	
– (2 pesticide applications)	20.40	
– other		
Trucking (\$8.35/tonne)	5.95	
Storage		
Land rent		
Operator labour (self or hired)	12.45	
Interest on operating	3.45	
Total Operating Expenses – Grain	176.00	
Expenses for Straw		
Tractor and Machine Expenses		
Fuel	3.95	
Repairs and maintenance	3.25	
Twine	2.80	
Other	11.55	
Total Operating Expenses – Straw	21.55	
Total Operating Expenses	197.55	
REVENUE		
Expected flax yield _____		
Expected flax price _____		
Total Market Revenue (Yield × Price)		
Program payment		
Total Flax Revenue		
GROSS MARGIN (Revenue – Operating Expenses)		
OVERHEAD EXPENSES		
	Flax Only	Flax & Straw
Machinery – depreciation	29.05	33.20
– interest on investment	14.45	16.45
Land		
Other overhead	11.25	12.30
TOTAL EXPENSES	230.75	259.50
Break-even price on your farm is: (total expenses/expected yield) _____		

OATS

OPERATING EXPENSES (costs based on projected yield of 1.2 tonne/acre (78 bu/acre))		Sample Costs/Acre	Your Farm Budget
Seed	– 85 lb/acre certified treated	32.30	
Fertilizer	– 35 kg/ha N (Southern Ontario)	19.95	
	– 55 kg/ha N (Northern Ontario)	30.85	
	– 20 kg/ha P	10.20	
	– 20 kg/ha K	9.15	
Herbicide	– weed control, if required	6.60	
Fungicide (for premium quality market)		16.40	
Tractor and Machine Expenses			
	Fuel (17 L) and lubricants	19.55	
	Repairs and maintenance	15.55	
	Crop insurance	5.95	
	Custom work – (fertilizer application, mixing and delivery)	10.20	
	– (2 pesticide applications)	20.40	
	Trucking (\$8.35/tonne)	10.00	
	Storage		
	Land rent		
	Operator labour (self or hired)	12.45	
	Interest on operating	3.25	
	Total Operating Expenses – Grain (Southern Ontario)	191.95	
	Total Operating Expenses – Grain (Northern Ontario)	202.85	
Expenses for Straw			
Tractor and Machine Expenses			
	Fuel	3.95	
	Repairs and maintenance	3.25	
	Twine	2.80	
	Other	11.55	
	Total Operating Expenses – Straw	21.55	
	Total Operating Expenses (Southern Ontario)	213.50	
	Total Operating Expenses (Northern Ontario)	224.40	
REVENUE			
	Expected oat yield _____		
	Expected oat price _____		
	Total Market Revenue (Yield × Price)		
	Program payment		
	Total Oats Revenue		
	Expected straw yield _____		
	Expected straw price _____		
	Total Straw Revenue (Yield × Price)		
	Total Revenue		
	GROSS MARGIN (Revenue – Operating Expenses)		
OVERHEAD EXPENSES			
		Oats Only	Oats & Straw
Machinery	– depreciation	29.05	33.20
	– interest on investment	14.45	16.45
Land			
Other overhead		11.25	12.30
	TOTAL EXPENSES (Southern Ontario)	246.70	275.45
	TOTAL EXPENSES (Northern Ontario)	257.60	286.35
	Break-even price on your farm is: (total expenses/expected yield) _____		

SOYBEANS

	Tillage System			Your Farm Budget
	Conventional	No-Till	Roundup Ready No-Till	
OPERATING EXPENSES				
(costs based on projected yield of 1.14 tonne/acre (42 bu/acre))				
Seed – 177,000 seeds/acre in 15-in. rows – drill (165,000 seeds/acre in 15-in. rows – planter)	44.35	44.35	77.35	_____
Fertilizer – nitrogen, if required				_____
– 20 kg/ha P	10.20	10.20	10.20	_____
– 40 kg/ha K	18.25	18.25	18.25	_____
Herbicide – annual grass and broadleaf weeds	36.90	36.90	6.75	_____
– burndown		6.75	6.75	_____
– other weed control, if required				_____
Seed treatment/inoculant, if required				_____
Tractor and Machine Expenses				
Fuel (17 L conventional, 8 L no till) and lubricants	19.55	10.35	10.35	_____
Repairs and maintenance	15.90	11.90	11.90	_____
Marketing fees (\$1.10/tonne)	1.25	1.25	1.25	_____
Crop insurance	11.25	11.25	11.25	_____
Drying (\$11.17/tonne)	12.15	12.15	12.15	_____
Custom work – (pesticide applications)	10.20	20.40	20.40	_____
– (fertilizer application, mixing and delivery)	10.20	10.20	10.20	_____
Added expense for IP				_____
Trucking (\$8.35/tonne)	9.55	9.55	9.55	_____
Storage (\$2.06/month/tonne × 4 months)	9.45	9.45	9.45	_____
Land rent				_____
Operator labour (self or hired)	12.45	6.45	6.45	_____
Interest on operating	4.45	4.40	4.45	_____
Total Operating Expenses	226.10	223.80	226.70	_____
REVENUE				
Expected yield _____				_____
Expected price _____				_____
Total Market Revenue (Yield × Price)				_____
Additional revenue from IP				_____
Program payment				_____
Total Revenue				_____
GROSS MARGIN (Revenue – Operating Expenses)				
OVERHEAD EXPENSES				
Machinery – depreciation	29.65	18.45	18.45	_____
– interest on investment	15.25	10.25	10.25	_____
Land				_____
Other overhead	11.50	7.15	7.15	_____
TOTAL EXPENSES	282.50	259.65	262.55	_____
Break-even price on your farm is: (total expenses/expected yield) _____				

SOFT WINTER WHEAT

	Tillage System		Your Farm Budget	
	Conventional	No-Till		
OPERATING EXPENSES				
(costs based on projected yield of 2.1 tonne/acre (76 bu/acre))				
Seed – 110 lb/acre certified treated (1.4–1.7 M seeds/acre)	47.15	47.15		
Fertilizer – 110 kg/ha N	61.50	61.50		
– 20 kg/ha P	10.20	10.20		
– 20 kg/ha K	9.15	9.15		
Herbicide – broadleaf weeds	6.60	6.60		
Fungicide – fusarium head blight	16.40	16.40		
Tractor and Machine Expenses				
Fuel (17 L conventional, 8 L no till) and lubricants	19.55	9.25		
Repairs and maintenance	15.55	12.45		
Crop insurance	12.20	12.20		
Marketing board fee (\$2.00/tonne)	4.20	4.20		
Custom work – (fertilizer application, mixing and delivery)	10.20	10.20		
– (2 pesticide applications)	20.40	20.40		
Added expense for IP				
Trucking (\$8.35/tonne)	17.55	17.55		
Land rent				
Operator labour (self or hired)	12.45	5.45		
Interest on operating	8.75	8.05		
Total Operating Expenses – Grain	271.85	250.75		
Expenses for Straw				
Tractor and Machine Expenses				
Fuel (3 L) and lubricants	3.95	3.95		
Repairs and maintenance	3.25	3.25		
Twine	2.80	2.80		
Other	11.55	11.55		
Total Operating Expenses – Straw	21.55	21.55		
Total Operating Expenses	293.40	272.30		
REVENUE				
Expected wheat yield _____				
Expected wheat price _____				
Total Market Revenue (Yield × Price)				
Additional income from IP				
Program payment				
Total Wheat Revenue				
Expected straw yield _____				
Expected straw price _____				
Total Straw Revenue (Yield × Price)				
Total Revenue				
GROSS MARGIN (Revenue – Operating Expenses)				
OVERHEAD EXPENSES				
	Conventional		No Till	
	Wheat Only	Wheat & Straw	Wheat Only	Wheat & Straw
Machinery – depreciation	29.05	33.20	18.65	22.80
– interest on investment	14.45	16.45	10.80	12.80
Land				
Other overhead	11.25	12.30	7.05	8.10
TOTAL EXPENSES	326.60	355.35	287.25	316.00
Break-even price on your farm is: (total expenses/expected yield) _____				

HARD RED WINTER WHEAT

	Tillage System		Your Farm Budget	
	Conventional	No-Till		
OPERATING EXPENSES				
(costs based on projected yield of 2.1 tonne/acre (76 bu/acre))				
Seed – 140 lb/acre certified treated (1.4–1.7 M seeds/acre)	60.00	60.00		
Fertilizer – 110 kg/ha N	61.50	61.50		
– 20 kg/ha P	10.20	10.20		
– 20 kg/ha K	9.15	9.15		
Herbicide – broadleaf weeds	6.60	6.60		
– other weed control, if required				
Fungicide – fusarium head blight	16.40	16.40		
Tractor and Machine Expenses				
Fuel (17 L conventional, 8 L no till) and lubricants	19.55	9.25		
Repairs and maintenance	15.55	12.45		
Crop insurance	11.35	11.35		
Marketing board fee (\$2.00/tonne)	4.20	4.20		
Custom work – (fertilizer application, mixing and delivery)	10.20	10.20		
– (2 pesticide application)	20.40	20.40		
Added expense for IP				
Trucking (\$8.35/tonne)	17.55	17.55		
Land rent				
Operator labour (self or hired)	12.45	5.45		
Interest on operating	9.15	8.45		
Total Operating Expenses – Grain	284.25	263.15		
Expenses for Straw				
Tractor and Machine Expenses				
Fuel (3 L) and lubricants	3.95	3.95		
Repairs and maintenance	3.25	3.25		
Twine	2.80	2.80		
Other	11.55	11.55		
Total Operating Expenses – Straw	21.55	21.55		
Total Operating Expenses	305.80	284.70		
REVENUE				
Expected wheat yield _____				
Expected wheat price _____				
Total Market Revenue (Yield × Price)				
Additional income from IP				
Program payment				
Total Wheat Revenue				
Expected straw yield _____				
Expected straw price _____				
Total Straw Revenue (Yield × Price)				
Total Revenue				
GROSS MARGIN (Revenue – Operating Expenses)				
OVERHEAD EXPENSES				
	Conventional		No-Till	
	Wheat Only	Wheat & Straw	Wheat Only	Wheat & Straw
Machinery – depreciation	29.05	33.20	18.65	22.80
– interest on investment	14.45	16.45	10.80	12.80
Land				
Other overhead	11.25	12.30	7.05	8.10
TOTAL EXPENSES	339.00	367.75	299.65	328.40
Break-even price on your farm is: (total expenses/expected yield) _____				

HARD RED SPRING WHEAT

OPERATING EXPENSES (costs based on projected yield of 1.29 tonne/acre (47.4 bu/acre))	Sample Costs/Acre	Your Farm Budget
Seed – 130 lb/acre certified treated (1.4–1.6 m seeds/acre)	55.70	
Fertilizer – 90 kg/ha N (200 kg/ha urea)	50.30	
– 20 kg/ha P	10.20	
– 30 kg/ha K	13.70	
Herbicide – broadleaf weeds	6.60	
– grass or wild oat control, if required		
– other weed control, if required		
Fungicide – fusarium head blight	16.40	
Tractor and Machine Expenses		
Fuel (17 L) and lubricants	19.55	
Repairs and maintenance	15.55	
Crop insurance	9.90	
Marketing board fee (\$2.00/tonne)	2.60	
Custom work – (fertilizer application, mixing and delivery)	10.20	
– (2 pesticide applications)	20.40	
– other		
Added expense for IP		
Trucking (\$8.35/tonne)	10.75	
Land rent		
Operator labour (self or hired)	12.45	
Interest on operating	5.10	
Total Operating Expenses – Grain	259.40	
Expenses for Straw		
Tractor and Machine Expenses		
Fuel (3 L)	3.95	
Repairs and maintenance	3.25	
Twine	2.80	
Other	11.55	
Total Operating Expenses – Straw	21.55	
Total Operating Expenses	280.95	
REVENUE		
Expected wheat yield _____		
Expected wheat price _____		
Total Market Revenue (Yield × Price)		
Additional income from IP		
Program payment		
Total Wheat Revenue		
Expected straw yield _____		
Expected straw price _____		
Total Straw Revenue (Yield × Price)		
Total Revenue		
GROSS MARGIN (Revenue – Operating Expenses)		
OVERHEAD EXPENSES		
	Wheat Only	Wheat & Straw
Machinery – depreciation	29.05	33.20
– interest on investment	14.45	16.45
Land		
Other overhead	11.25	12.30
TOTAL EXPENSES	314.15	342.90
Break-even price on your farm is: (total expenses/expected yield) _____		

WHITE/BLACK BEANS

OPERATING EXPENSES (costs based on projected yield of 19 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)	70.00	_____
Fertilizer	– nitrogen, if required		_____
	– 20 kg/ha P	10.20	_____
	– 40 kg/ha K	18.25	_____
Herbicide	– annual grass and broadleaf weeds	34.40	_____
Crop pre-harvest		16.35	_____
Fungicide, if required	– white mould	50.25	_____
Fungicide, if required	– anthracnose	17.25	_____
Insecticide			_____
Tractor and Machine Expenses			
Fuel (22 L) and lubricants		25.90	_____
Repairs and maintenance		19.15	_____
Marketing fees (\$7.97/tonne (white beans only))		6.90	_____
Crop insurance		19.10	_____
Custom work	– (fertilizer application, mixing and delivery)	10.20	_____
	– (4 pesticide applications)	40.75	_____
Trucking (\$8.35/tonne)		7.20	_____
Drying			_____
Land rent			_____
Operator labour (self or hired)		16.70	_____
Interest on operating		7.25	_____
Total Operating Expenses		369.85	_____
REVENUE			
Expected yield	_____		_____
Expected price	_____		_____
Total Market Revenue (Yield × Price)			_____
Less pick charges (typically 2%–4%)			_____
Program payment			_____
Total Revenue			_____
GROSS MARGIN (Revenue – Operating Expenses)			
OVERHEAD EXPENSES			
Machinery	– depreciation	35.70	_____
	– interest on investment	15.95	_____
Land			_____
Other overhead		12.65	_____
TOTAL EXPENSES		434.15	_____
Break-even price on your farm is: (total expenses/expected yield) _____			

ORGANIC – GRAIN CORN AND SOYBEANS*

	Grain Corn	Soybeans	
OPERATING EXPENSES			
(costs based on projected yield of 2.67 tonne/acre (105 bu/acre) grain corn; 0.82 tonne/acre (30 bu/acre) soybeans)			
	Sample Costs/Acre	Sample Costs/Acre	Your Farm Budget
Seed – grain corn – 30,000 kernels, certified, organic;	73.45	58.65	_____
Soybeans – 180,000 seeds/acre, certified, organic in 21–30-in. rows			_____
Seed inoculant		2.00	_____
Fertilizer – Manure, compost**	100.00		_____
Herbicide			_____
Insecticide			_____
Fungicide			_____
Soil maintenance (cover crop, fallow etc.)**	50.00	50.00	_____
Tractor and Machine Expenses			
Fuel (28 L corn, 26 L soybeans) and lubricants	33.30	30.15	_____
Repairs and maintenance	20.15	24.70	_____
Marketing fees (\$0.40/tonne (corn), \$1.10/tonne (soybeans))	1.05	0.90	_____
Certification fees	3.00	3.00	_____
Crop insurance	15.30	20.45	_____
Custom work			_____
Added expense for handling organic crops			_____
Trucking (\$9.06/tonne corn, \$8.35/tonne soybeans)	24.15	7.40	_____
Drying (\$19.73/tonne corn, \$11.17/tonne soybeans)	52.65	9.10	_____
Storage (\$2.06/tonne/month × 4 months)	22.00	6.75	_____
Land rent			_____
Operator labour (self or hired)	20.75	19.65	_____
Labour – hand weed	40.00	60.00	_____
Interest on operating	9.10	5.85	_____
Total Operating Expenses	464.90	298.60	_____
REVENUE			
Expected yield _____			_____
Expected price _____			_____
Total Market Revenue (Yield × Price)			_____
Program payment			_____
Total Revenue			_____
GROSS MARGIN (Revenue – Operating Expenses)			
OVERHEAD EXPENSES			
Machinery – depreciation	36.45	46.10	_____
– interest on investment	17.60	23.75	_____
Land			_____
Other overhead	11.80	17.85	_____
TOTAL EXPENSES	530.75	386.30	_____
Break-even price on your farm is: (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*

	Winter Wheat	Spelt	
OPERATING EXPENSES			
(costs based on projected yield of 1.36 tonne/acre (50 bu/acre) wheat; 1.0 tonne/acre spelt)			
	Sample Costs/Acre	Sample Costs/Acre	Your Farm Budget
Seed – wheat – 150 lb/acre certified, organic (1.4–1.7 M seeds/acre)	76.70	89.10	_____
– spelt – 180 lb/acre certified, organic			_____
Fertilizer – 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	19.55	19.55	_____
Repairs and maintenance	15.55	15.55	_____
Crop insurance	16.55	14.65	_____
Marketing board fee (\$2.00/tonne (wheat))	2.70		_____
Certification fees	3.00	3.00	_____
Custom work			_____
Added expense for handling organic crops			_____
Trucking (\$8.35/tonne)	11.35	8.35	_____
Land rent			_____
Operator labour (self or hired)	12.45	12.45	_____
Labour – hand weed	30.00	30.00	_____
Interest on operating	11.20	11.40	_____
Total Operating Expenses – Grain	349.05	354.05	_____
Expenses for Straw			
Tractor and Machine Expenses			
Fuel and lubricants	3.95	3.95	_____
Repairs and maintenance	3.25	3.25	_____
Twine	2.80	2.80	_____
Other	11.55	11.55	_____
Total Operating Expenses – Straw	21.55	21.55	_____
Total Operating Expenses	370.60	375.60	_____
REVENUE			
Expected yield _____			_____
Expected price _____			_____
Total Market Revenue (Yield × Price)			_____
Program payment			_____
Total Revenue			_____
Expected straw yield _____			_____
Expected straw price _____			_____
Total Straw Revenue (Yield × Price)			_____
Total Revenue			_____
GROSS MARGIN (Revenue – Operating Expenses)			
OVERHEAD EXPENSES			
	Wheat Only	Wheat & Straw	Spelt Only Spelt & Straw
Machinery – depreciation	29.05	33.20	29.05 33.20
– interest on investment	14.45	16.45	14.45 16.45
Land			_____
Other overhead	11.25	12.30	11.25 12.30
TOTAL EXPENSES	403.80	432.55	408.80 437.55
Break-even price on your farm is: (total expenses/expected yield) _____			
* Organic budget estimates do not include transition period costs.			
** Manure, compost and cover crop costs estimates are highly variable depending on individual farm situations.			

ORGANIC – BARLEY AND OATS*

	Barley	Oats	
OPERATING EXPENSES			
(costs based on projected yield of 1.2 tonne/acre (55 bu/acre) barley; 0.96 tonne/acre (62 bu/acre) oats)			
	Sample Costs/Acre	Sample Costs/Acre	Your Farm Budget
Seed – barley – 150 lb/acre certified, organic	69.00	46.20	
– oats – 105 lb/acre certified, organic			
Fertilizer – manure/compost**			
Herbicide			
Fungicide			
Soil maintenance (cover crop, fallow etc.) **	50.00	50.00	
Tractor and Machine Expenses			
Fuel (17 L) and lubricants	20.55	20.55	
Repairs and maintenance	16.65	16.65	
Crop insurance	5.95	5.95	
Certification fees	3.00	3.00	
Custom work			
Added expense for handling organic crops			
Trucking (\$8.35/tonne)	10.00	8.00	
Land rent			
Operator labour (self or hired)	14.55	14.55	
Labour – hand weed	30.00	30.00	
Interest on operating	7.30	6.45	
Total Operating Expenses – Grain	227.00	201.35	
Expenses for Straw			
Tractor and Machine Expenses			
Fuel and lubricants	3.95	3.95	
Repairs and maintenance	3.25	3.25	
Twine	2.80	2.80	
Other	11.55	11.55	
Total Operating Expenses – Straw	21.55	21.55	
Total Operating Expenses	248.55	222.90	
REVENUE			
Expected yield _____			
Expected price _____			
Total Market Revenue (Yield x Price)			
Program payment			
Total Revenue			
Expected straw yield _____			
Expected straw price _____			
Total Straw Revenue (Yield x Price)			
Total Revenue			
GROSS MARGIN (Revenue – Operating Expenses)			
OVERHEAD EXPENSES			
	Barley Only	Barley & Straw	Oats Only
			Oats & Straw
Machinery – depreciation	30.05	34.20	30.05
– interest on investment	15.45	17.45	15.45
Land			
Other overhead	12.05	13.10	12.05
TOTAL EXPENSES	284.55	313.30	258.90
287.65			
Break-even price on your farm is: (total expenses/expected yield) _____			
* Organic budget estimates do not include transition period costs.			
** Manure, compost and cover crop costs estimates are highly variable depending on individual farm situations.			

Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA)

RESOURCES

Selected Factsheets and Publications

Order No.

<i>Budgeting Farm Machinery Costs</i>	01-075
<i>Leasing Farm Equipment</i>	09-035
<i>Guide to Custom Farmwork and Short-Term Equipment Rental</i>	10-049
<i>Agronomy Guide for Field Crops</i>	Publication 0811E
<i>Field Crop Protection Guide, 2011–2012</i>	Publication 0812E
<i>Soil Fertility Handbook</i>	Publication 0611E
<i>Guide to Weed Control, 2012–2013</i>	Publication 0075E

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

- online at www.publications.serviceontario.ca
- by telephone to the ServiceOntario Contact Centre
Monday to Friday, 8:30 AM to 5:00 PM
416-326-5300
416-325-3408 (TTY)
1-800-668-9938 Toll-free across Canada
1-800-268-7095 TTY Toll-free across Ontario
- in person at ServiceOntario Centres throughout the province.

OMAFRA has excellent tools and information to help manage your farm business at the Agricultural Business Management section at www.ontario.ca/agbusiness. Results of the 2009 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, posted with two display options. 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. Or you can view, and then print Manual Budget Forms that have a Sample Cost and a Your Farm column to input numbers manually in hard copy.

The Field Crop Budgets are updated by John Molenhuis, Business Analysis and Cost of Production Program Lead, OMAFRA, Brighton (john.molenhuis@ontario.ca) and Brian Hall, Edible Beans and Canola Specialist, OMAFRA, Stratford (brian.hall@ontario.ca).

Application rate conversions (approximate)

Metric to Imperial	
litres per hectare × 0.09	= gallons per acre
litres per hectare × 0.36	= quarts per acre
litres per hectare × 0.71	= pints per acre
millilitres per hectare × 0.015	= fluid ounces per acre
grams per hectare × 0.015	= ounces per acre
kilograms per hectare × 0.89	= pounds per acre
tonnes per hectare × 0.45	= tons per acre

Imperial to metric	
gallons per acre × 11.23	= litres per hectare (L/ha)
quarts per acre × 2.8	= litres per hectare (L/ha)
pints per acre × 1.4	= litres per hectare (L/ha)
fluid ounces per acre × 70	= millilitres per hectare (mL/ha)
tons per acre × 2.24	= tonnes per hectare (t/ha)
pounds per acre × 1.12	= kilograms per hectare (kg/ha)
ounces per acre × 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	= 1¼ 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
15.0 kg/ha	= 13½ lb/acre

Conversion tables — imperial to metric (approximate)

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

Handy metric conversion factor

litres per hectare × 0.4 = litres per acre
kilograms per hectare × 0.4 = kilograms per acre



Published by the Ministry of Agriculture, Food and Rural Affairs
© Queens' Printer for Ontario 2011
Toronto, Ontario
ISSN 0838-5657X
Rev 12-11-1.8M
Également disponible en français (Commande n° 0060F)

Agricultural Information Contact Centre:
1-877-424-1300
E-mail: ag.info.omafra@ontario.ca
Northern Ontario Regional Office:
1-800-461-6132

www.ontario.ca/omafra

