

2019 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 under *Cost of Production Budgets*.

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



2019 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 4.95% 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 and risk management program 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.

"Contribution 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. "Contribution 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 ¹
Soybean and field bean residue	30	0

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

2019 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	116.00	93.15	48.00	82.00	155.75	91.30	80.00	47.00	75.00
Seed treatment	1.60	–	13.00	13.00	–	–	–	–	–
Fertility	133.20	100.35	42.65	42.65	43.05	43.05	100.65	33.95	67.15
Pesticides	26.10	57.80	81.40	25.10	140.05	148.60	37.45	24.40	26.95
Total Inputs	276.90	251.30	185.05	162.75	338.85	282.95	218.10	105.35	169.10
Tillage	57.95	52.35	–	–	87.10	58.10	–	52.35	52.35
Planting	22.60	19.85	26.00	26.00	22.45	26.45	25.00	19.45	19.45
Spraying	11.15	33.50	22.35	22.35	44.70	55.85	22.35	22.35	22.35
Fertilizing	11.15	11.15	11.15	11.15	11.15	11.15	11.15	11.15	11.15
Harvesting & trucking	85.45	54.55	55.05	55.05	101.85	59.50	63.15	54.10	55.90
Total Machinery	188.30	171.40	114.55	114.55	267.25	211.05	121.65	159.40	161.20
Drying	75.25	–	–	–	–	–	–	–	–
Production insurance	10.90	16.55	9.15	9.15	25.90	19.10	8.00	6.40	7.60
Risk management	7.30	5.60	1.25	1.25	3.30	1.60	3.00	7.65	3.25
Interest @ 4.95%	13.10	9.50	6.95	6.40	12.55	11.15	12.80	4.75	6.85
Marketing & other	40.10	3.35	13.05	13.05	5.75	6.35	1.95	1.75	1.25
Total Costs	611.85	457.70	330.00	307.15	653.60	532.20	365.50	285.30	349.25
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.

Crop Budgeting Tools:

- Ontario Enterprise Budgeting Tools: ontario.ca/agbusiness, search for “budgeting tools”
- Custom Farmwork Rates: ontario.ca/agbusiness, search for “custom farm rates”
- Custom Farmwork Rate calculator: ontario.ca/agbusiness, search for “custom farm rate calculator”
- Field Crop Statistics : Harvested Area, Production, Crop Prices, Corn Supply and Disposition: ontario.ca/agbusiness, search for “field crop statistics”
- Crop Nutrient Removal calculator (from IPNI): www.ipni.net/article/IPNI-3346
- Corn Nitrogen calculator: www.gocorn.net
- Mobile Apps: Cash Cropper, Pest Manager and Ontario Corn Nitrogen Calculator: www.gfo.ca/apps

ALFALFA-TIMOTHY HAY

DIRECT SEEDING ESTABLISHMENT			Sample Costs/ Acre	Your Farm Budget
Seed	13.45 kg/ha alfalfa		72.00	
Other seed (timothy)	4.48 kg/ha		11.25	
Inoculant			1.05	
Fertility	crop removal	23 kg/ha P ₂ O ₅ (6.1 kg/tonne removal rate)	11.20	
		92 kg/ha K ₂ O (23.5 kg/tonne removal rate)	30.10	
Herbicide	broadleaf weed control		14.95	
Production insurance			3.30	
Tractor and machine expenses	fuel (27 L) and lubricants		33.60	
	repairs		31.30	
Custom work	2 pesticide applications		22.35	
	2 fertilizer applications, mixing and delivery		22.30	
	bale wrapping — plastic — 50% yield		34.70	
Twine			2.50	
Operator labour (self or hired)			28.65	
Interest			14.40	
Total Establishment Year Expenses			333.65	
ANNUAL OPERATING EXPENSES (costs based on projected yield of 3.15 tonnes DM/acre)				
Establishment year expenses — over 4 years (less establishment year sales)			37.00	
Fertility	crop removal	46 kg/ha P ₂ O ₅ (6.1 kg/tonne removal rate)	22.40	
		185 kg/ha K ₂ O (applied in fall) (23.5 kg/tonne removal rate)	60.25	
Tractor and machine expenses	fuel (17 L) and lubricants		20.75	
	repairs		18.90	
Twine			4.95	
Production insurance			25.75	
Custom work	2 fertilizer applications, mixing and delivery		22.30	
	bale wrapping — plastic		69.40	
Other costs			—	
Land rent			—	
Operator labour (self or hired)			28.80	
Interest on operating			8.00	
Total Annual Operating Expenses			318.50	
REVENUE				
Expected yield _____				
Expected price _____				
			Total Revenue (Yield x Price)	
			CONTRIBUTION MARGIN (Revenue – Operating Expenses)	
OVERHEAD EXPENSES				
Machinery	depreciation		17.75	
	interest on investment		6.80	
Land			—	
Other overhead			3.05	
NITROGEN CREDIT TO FOLLOWING CROPS IN ROTATION				
Nitrogen credit (\$/acre = N reduction (from Table 1) x price of N)				
Grain yield increase				
Total benefits/year				
TOTAL EXPENSES			346.10	
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
Expenses for Grain				
Seed	1.0–1.4 M seeds/acre, certified seed		48.00	
Fertility	74 kg/ha N (2,800 or less corn heat units (CHUs))		35.80	
	46 kg/ha N (2,800 or more CHUs)		22.40	
	crop removal	30 kg/ha P ₂ O ₅ (8.0 kg/tonne removal rate)	14.60	
		23 kg/ha K ₂ O (6.3 kg/tonne removal rate)	7.65	
Herbicide	broadleaf weed control		10.55	
	grassy weed control		9.60	
Fungicide			16.40	
Tractor and machine expenses	fuel (14 L) and lubricants		17.95	
	repairs and maintenance		20.50	
Production insurance			6.40	
Risk Management Program			9.60	
Marketing board fees (\$1.31/tonne)			1.95	
Custom work	fertilizer application, mixing and delivery		11.15	
	2 pesticide application		22.35	
	other		–	
Trucking (\$9.25/tonne)			13.90	
Storage			–	
Land rent			–	
Operator labour (self or hired)			10.15	
Interest on operating			7.55	
Total Operating Expenses — Grain (2,800 or less CHUs)			264.10	
Total Operating Expenses — Grain (2,800 or more CHUs)			250.70	
Expenses for Straw (costs based on projected yield of 1.89 tonnes/acre)				
Fertility	crop removal	12 kg/ha P ₂ O ₅ (2.6 kg/tonne removal rate)	5.95	
		94 kg/ha K ₂ O (20.0 kg/tonne removal rate)	30.70	
Tractor and machine expenses	fuel (4 L) and lubricants		5.25	
	repairs and maintenance		3.90	
Twine			7.05	
Other			13.90	
Total Operating Expenses — Straw			66.75	
Total Operating Expenses (2,800 or less CHUs)			330.85	
Total Operating Expenses (2,800 or more CHUs)			317.45	
REVENUE				
Expected barley yield _____				
Expected barley price _____				
Total Market Revenue (Yield x Price)				
Program payment				
Total Barley Revenue				
Expected straw yield _____				
Expected straw price _____				
Total Straw Revenue (Yield x Price)				
Total Revenue				
CONTRIBUTION MARGIN (Revenue – Operating Expenses)				
OVERHEAD EXPENSES			Barley Only	Barley & Straw
Machinery	depreciation		42.00	45.70
	interest on investment		19.35	20.95
Land			–	–
Other overhead			7.75	8.80
TOTAL EXPENSES (2,800 or less CHUs)			333.20	406.30
TOTAL EXPENSES (2,800 or more CHUs)			319.80	392.90
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	5.6 kg/ha hybrid, treated	93.15	
Fertility	110 kg/ha N (188 kg/ha urea + 112 kg/ha ammonium sulphate) ¹	65.60	
	crop removal 54 kg/ha P ₂ O ₅ (24.5 kg/tonne removal rate)	26.15	
	26 kg/ha K ₂ O (12.0 kg/tonne removal rate)	8.60	
Herbicide	grass and broadleaf weed control	12.20	
Technology use agreement		–	
Insecticide	if required (swede midge)	24.85	
Fungicide	if required	20.75	
Tractor and machine expenses	fuel (17 L) and lubricants	21.75	
	repairs and maintenance	20.05	
Marketing board and Grain Financial Protection fees (\$3.80/tonne)		3.35	
Production insurance		16.55	
Risk Management Program		5.60	
Custom work	fertilizer application, mixing and delivery	11.15	
	3 pesticide applications	33.50	
	other	–	
Trucking (\$9.25/tonne)		8.15	
Storage		–	
Land rent		–	
Operator labour (self or hired)		12.95	
Interest on operating		9.50	
Total Operating Expenses		393.85	
REVENUE			
Expected yield _____			
Expected price _____			
Total Market Revenue (Yield x Price)			
Program payment			
Total Revenue			
CONTRIBUTION MARGIN (Revenue – Operating Expenses)			
OVERHEAD EXPENSES			
Machinery	depreciation	42.30	
	interest on investment	18.85	
Land		–	
Other overhead		6.90	
TOTAL EXPENSES		461.90	
Break-even price on your farm (total expenses/expected yield):			

¹ Nitrogen rate is based on nitrogen price of \$1.22/kg (\$0.55/lb) N and a canola price of \$493/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*	5.6 kg/ha — hybrid, treated	102.15	
Fertility**	195 kg/ha N (373 kg/ha urea + 112 kg/ha ammonium sulphate) ¹	106.95	
	crop removal 80 kg/ha P ₂ O ₅ (24.5 kg/tonne removal rate)	38.70	
	39 kg/ha K ₂ O (12.0 kg/tonne removal rate)	12.70	
Herbicide	volunteer cereal control	12.00	
Insecticide	if required (cabbage seedpod weevil)	24.85	
Fungicide	if required	20.75	
Tractor and machine expenses	fuel (13 L), lubricants	16.35	
	repairs and maintenance	14.65	
Marketing board and Grain Financial Protection fees (\$3.80/tonne)		4.95	
Production insurance		16.55	
Risk Management Program		8.30	
Custom work	fertilizer application, mixing and delivery	11.15	
	3 pesticide applications	33.50	
	other	—	
Trucking (\$9.25/tonne)		12.05	
Storage		—	
Land rent		—	
Operator labour (self or hired)		9.50	
Interest on operating		11.00	
Total Operating Expenses		456.10	
REVENUE			
Expected yield _____			
Expected price _____			
Total Market Revenue (Yield x Price)			
Program payment			
Total Revenue			
CONTRIBUTION MARGIN (Revenue – Operating Expenses)			
OVERHEAD EXPENSES			
Machinery	depreciation	30.85	
	interest on investment	13.80	
Land		—	
Other overhead		5.05	
TOTAL EXPENSES		505.80	
Break-even price on your farm (total expenses/expected yield):			
* Seeding rate recommended range is 3.4–5.6 kg/ha (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.			
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 0.83 tonnes/acres (18 cwt/acre))			Sample Costs/ Acre	Your Farm Budget
Seed	78-90 kg/ha (4–5 seeds/ft row) certified, treated seed (with fungicide plus Cruiser insecticide)		155.75	
Fertility	40 kg/ha N		19.45	
	crop removal	30 kg/ha P ₂ O ₅ (14.0 kg/tonne removal rate)	14.15	
		30 kg/ha K ₂ O (14.0 kg/tonne removal rate)	9.45	
Herbicide	annual grass and broadleaf weeds		71.20	
	other weed control, if required		–	
Insecticide			–	
Fungicide	if required (white mould)		50.25	
Crop pre-harvest			18.60	
Tractor and machine expenses	fuel (29 L) and lubricants		36.05	
	repairs and maintenance		33.85	
Marketing board fees (\$6.89/tonne)			5.75	
Production insurance			25.90	
Risk Management Program			3.30	
Custom work	fertilizer application, mixing and delivery		11.15	
	4 pesticide applications		44.70	
Trucking (\$9.25/tonne)			7.70	
Drying			–	
Land rent			–	
Operator labour (self or hired)			23.35	
Interest on operating			12.55	
Total Operating Expenses			543.15	
REVENUE				
Expected yield _____				
Expected price _____				
Total Market Revenue (Yield x Price)				
Less pick charges (typically 2%–4%)				
Program payment				
Total Revenue				
CONTRIBUTION MARGIN (Revenue – Operating Expenses)				
OVERHEAD EXPENSES				
Machinery	depreciation		71.95	
	interest on investment		31.75	
Land			–	
Other overhead			11.20	
TOTAL EXPENSES			658.05	
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 ¹ (average cost of 3 hybrids)	32,000 kernels — treated — RR ²	120.70	—	120.70	
	32,000 kernels — treated — Bt	100.30	—	100.30	
	32,000 kernels — treated — multi-trait	127.00	—	127.00	
	32,000 kernels — treated — non-GMO	—	85.00	—	
Insecticide seed treatment, if required		1.60	1.60	1.60	
Fertility ³	161 kg/ha N (575 kg/ha of 28-0-0 U.A.N.)	81.10	81.10	81.10	
	crop removal 74 kg/ha P ₂ O ₅ (7.25 kg/tonne removal rate)	35.85	35.85	35.85	
	50 kg/ha K ₂ O (4.9 kg/tonne removal rate)	16.25	16.25	16.25	
Herbicide	annual grass and broadleaf weed	26.10	31.55	26.10	
	burndown	—	—	11.40	
	other weed control, if required	—	—	—	
Insecticide/fungicide	if required	—	—	—	
Tractor and machine expenses	fuel (20 L conventional, 11 L no-till) and lubricant	25.05	25.05	14.15	
	repairs and maintenance	20.85	20.85	12.10	
Marketing board and Grain Financial Protection fees (\$0.44/tonne)		1.80	1.80	1.80	
Production insurance		10.90	10.90	10.90	
Risk Management Program		7.30	7.30	7.30	
Custom work	fertilizer application, mixing and delivery	11.15	11.15	11.15	
	pesticide applications	11.15	11.15	22.35	
	other	—	—	—	
Trucking (\$9.75/tonne)		39.75	39.75	39.75	
Drying (\$18.48/tonne, 8 points)		75.25	75.25	75.25	
Land rent		—	—	—	
Operator labour (self or hired)		12.75	12.75	7.45	
Storage (\$2.35/tonne/month x 4 months)		38.30	38.30	38.30	
Interest on operating		13.10	12.50	13.05	
Total Operating Expenses		544.25	518.10	541.85	
REVENUE					
Expected yield _____ (Corn following corn: 8.5% corn yield decrease)					
Expected price _____					
Total Market Revenue (Yield x Price)					
Program payment					
Total Revenue					
CONTRIBUTION MARGIN (Revenue – Operating Expenses)					
OVERHEAD EXPENSES					
Machinery	depreciation	44.50	44.50	25.80	
	interest on investment	19.55	19.55	11.35	
Land		—	—	—	
Other overhead		6.80	6.80	4.00	
TOTAL EXPENSES		615.10	588.95	583.00	
Break-even price on your farm (total expenses/expected yield):					

¹ Seed treated with fungicide only.

² Roundup Ready.

³ 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 4.07 tonnes/acre (160 bu/acre), nitrogen cost of \$1.26/kg and corn price of \$189/tonne (\$4.80/bu).

See www.gocorn.net for more accurate nitrogen requirements for corn.

SILAGE CORN

OPERATING EXPENSES (costs based on projected yield of 8.05 tonnes DM/acre)		Sample Costs/ Acre	Your Farm Budget
Seed	32,000 kernels, with seed treatment	122.30	
Insecticide seed treatment, if required		1.60	
Fertility ¹	161 kg/ha N (575 kg/ha of 28-0-0 U.A.N.)	81.10	
	crop removal 110 kg/ha P ₂ O ₅ (5.5 kg/tonne removal rate)	53.55	
	233 kg/ha K ₂ O (11.7 kg/tonne removal rate)	76.00	
Herbicide	annual grass and broadleaf weeds	26.10	
	other weed control, if required	–	
Insecticide/fungicide	if required	–	
Tractor and machine expenses	fuel (13 L) and lubricants	16.75	
	repairs and maintenance	12.25	
Silo repair and maintenance		–	
Production insurance		10.90	
Silage inoculant		–	
Custom work	fertilizer application, mixing and delivery	11.15	
	pesticide applications	11.15	
	harvest	62.80	
Land rent		–	
Operator labour (self or hired)		9.70	
Interest on operating		12.25	
Total Operating Expenses		507.60	
REVENUE			
Expected yield _____			
Expected price _____			
Total Market Revenue (Yield x Price)			
Program payment			
Total Revenue			
CONTRIBUTION MARGIN (Revenue – Operating Expenses)			
OVERHEAD EXPENSES			
Machinery	depreciation	27.00	
	interest on investment	11.05	
Land		–	
Other overhead		3.30	
TOTAL EXPENSES		548.95	
Break-even price on your farm (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 heat units, clay loam soil, following wheat with straw removed, with projected grain corn yield of 4.07 tonnes/acre (160 bu/acre), ensiled at 65% moisture, nitrogen cost of \$1.26/kg and corn price of \$189/tonne (\$4.80/bu).

See 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
Expenses for Grain				
Seed	49 kg/ha certified, treated		28.45	
Fertility	45 kg/ha N		21.90	
	crop removal	23 kg/ha P ₂ O ₅ (7.5 kg/tonne removal rate)	10.95	
		17 kg/ha K ₂ O (5.8 kg/tonne removal rate)	5.65	
Herbicide	broadleaf weed control		8.00	
	grass weed control, if required		20.00	
	desiccant		8.50	
Fungicide			–	
Tractor and machine expenses	fuel (14 L) and lubricants		17.95	
	repairs and maintenance		20.50	
Production insurance			8.30	
Custom work	fertilizer application, mixing & delivery		11.15	
	2 pesticide applications		22.35	
	other		–	
Trucking (\$9.25/tonne)			7.15	
Storage			–	
Land rent			–	
Operator labour (self or hired)			10.15	
Interest on operating			4.95	
Total Operating Expenses — Grain			205.95	
Expenses for Straw (costs based on projected yield of 2.21 tonnes/acre)				
Fertility	crop removal	18 kg/ha P ₂ O ₅ (3.2 kg/tonne removal rate)	8.60	
		105 kg/ha K ₂ O (19.0 kg/tonne removal rate)	34.15	
	Tractor and machine expenses	fuel (4 L) and lubricants		5.25
repairs and maintenance		3.90		
Twine			8.25	
Other			13.90	
Total Operating Expenses — Straw			74.05	
Total Operating Expenses			280.00	
REVENUE				
Expected flax yield _____				
Expected flax price _____				
Total Market Revenue (Yield x Price)				
Program payment				
Total Flax Revenue				
CONTRIBUTION MARGIN (Revenue – Operating Expenses)				
OVERHEAD EXPENSES		Flax Only	Flax & Straw	
Machinery	depreciation		42.00	45.70
	interest on investment		19.35	20.95
Land		–	–	
Other overhead		7.75	8.80	
TOTAL EXPENSES		275.05	355.45	
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	1.1 M seeds/acre, certified treated		47.00	
Fertility	35 kg/ha N (Southern Ontario)		17.35	
	55 kg/ha N (Northern Ontario)		26.85	
	crop removal	23 kg/ha P ₂ O ₅ (7.5 kg/tonne removal rate)	10.95	
		17 kg/ha K ₂ O (5.8 kg/tonne removal rate)	5.65	
Herbicide	weed control, if required		8.00	
Fungicide			16.40	
Tractor and machine expenses	fuel (14 L) and lubricants		17.95	
	repairs and maintenance		20.50	
Production insurance			6.40	
Risk Management Program			7.65	
Marketing board fees (\$1.47/tonne)			1.75	
Custom work	fertilizer application, mixing and delivery		11.15	
	2 pesticide applications		22.35	
Trucking (\$9.25/tonne)			11.10	
Storage			–	
Land rent			–	
Operator labour (self or hired)			10.15	
Interest on operating			4.75	
Total Operating Expenses — Grain (Southern Ontario)			219.10	
Total Operating Expenses — Grain (Northern Ontario)			228.60	
Expenses for Straw (costs based on project yield of 2.21 tonnes/acre)				
Fertility	crop removal	18 kg/ha P ₂ O ₅ (3.2 kg/tonne removal rate)	8.60	
		105 kg/ha K ₂ O (19.0 kg/tonne removal rate)	34.15	
Tractor and machine expenses	fuel (4 L) and lubricants		5.25	
	repairs and maintenance		3.90	
Twine			8.25	
Other			13.90	
Total Operating Expenses — Straw			74.05	
Total Operating Expenses (Southern Ontario)			293.15	
Total Operating Expenses (Northern Ontario)			302.65	
REVENUE				
Expected oat yield _____				
Expected oat price _____				
Total Market Revenue (Yield x Price)				
Program payment				
Total Oats Revenue				
Expected straw yield _____				
Expected straw price _____				
Total Straw Revenue (Yield x Price)				
Total Revenue				
CONTRIBUTION MARGIN (Revenue – Operating Expenses)				
OVERHEAD EXPENSES			Oats Only	Oats & Straw
Machinery	depreciation		42.00	45.70
	interest on investment		19.35	20.95
Land			–	–
Other overhead			7.75	8.80
TOTAL EXPENSES (Southern Ontario)			288.20	368.60
TOTAL EXPENSES (Northern Ontario)			297.70	378.10
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)		48.00	48.00	82.00	
Fungicide seed treatment			13.00	13.00	13.00	
Additional seed treatments or inoculants, If required			–	–	–	
Fertility	crop removal	42 kg/ha P ₂ O ₅ (14.0 kg/tonne removal rate)	20.30	20.30	20.30	
		69 kg/ha K ₂ O (23.0 kg/tonne removal rate)	22.35	22.35	22.35	
Herbicide	annual grass and broadleaf weeds		70.00	70.00	13.70	
	burndown		–	11.40	11.40	
	other weed control, if required		–	–	–	
Insecticide/fungicide	if required		–	–	–	
Tractor and machine expenses	fuel (14 L conventional, 7 L no till) and lubricants		17.95	9.40	9.40	
	repairs and maintenance		21.00	13.00	13.00	
Marketing board and Grain Financial Protection fees (\$1.54/tonne)			1.85	1.85	1.85	
Production insurance			9.15	9.15	9.15	
Risk Management Program			1.25	1.25	1.25	
Drying, if required						
Custom work	pesticide applications		11.15	22.35	22.35	
	fertilizer application, mixing and delivery		11.15	11.15	11.15	
Added expense for IP			–	–	–	
Trucking (\$9.25/tonne)			11.05	11.05	11.05	
Storage (\$2.35/month/tonne x 4 months)			11.20	11.20	11.20	
Land rent			–	–	–	
Operator labour (self or hired)			10.15	5.25	5.25	
Interest on operating			6.90	6.95	6.40	
Total Operating Expenses			286.45	287.65	264.80	
REVENUE						
Expected yield _____ (Soybeans following soybeans: 10% soybean yield decrease)						
Expected price _____						
Total Market Revenue (Yield x Price)						
Additional revenue from IP						
Program payment						
Total Revenue						
CONTRIBUTION MARGIN (Revenue – Operating Expenses)						
OVERHEAD EXPENSES						
Machinery	depreciation		43.10	26.10	26.10	
	interest on investment		19.80	12.25	12.25	
Land			–	–	–	
Other overhead			7.90	5.20	5.20	
TOTAL EXPENSES			357.25	331.20	308.35	
Break-even price on your farm (total expenses/expected yield):						

SWITCHGRASS

ESTABLISHMENT EXPENSES (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	9 kg/ha switchgrass		120.00	120.00	120.00	120.00	
	145 kg/ha spring wheat		—	—	75.00	75.00	
Fertility	nitrogen, if required		—	—	43.80	43.80	
	crop removal	P ₂ O ₅	—	—	16.55	16.55	
		K ₂ O	—	—	6.80	6.80	
Herbicide	annual grass and broadleaf control		—	—	10.55	10.55	
	burndown		—	11.40	—	11.40	
	other weed control, if required		—	—	—	—	
Insecticide/fungicide	if required		—	—	—	—	
Tractor and machine expenses	fuel (12 L conventional, 4 L no till) and lubricants		15.30	4.45	15.30	4.45	
	repairs and maintenance		13.70	7.80	13.70	7.80	
Custom work	pesticide applications		—	11.15	11.15	22.35	
	fertilizer applications, mixing and delivery		—	—	—	—	
Harvest and trucking (spring wheat)			—	—	54.90	54.90	
Operator labour (self or hired)			12.65	4.30	12.65	4.30	
Establishment failure rate			—	—	—	—	
Interest on operating			3.70	3.85	9.10	9.25	
Total Establishment Year Expenses			165.35	162.95	389.50	387.15	
ANNUAL OPERATING EXPENSES (costs based on projected yield of 4.0 tonnes/acre (4.4 tons/acre))							
Establishment year expenses — over 7 years (less establishment year sales)			36.60	32.75	15.25	11.40	
Fertility	76 kg/ha nitrogen		37.60	37.60	37.60	37.60	
	crop removal	P ₂ O ₅	—	—	—	—	
		K ₂ O	—	—	—	—	
Tractor and machine expenses	fuel (17 L) and lubricants		20.95	20.95	20.95	20.95	
	repairs and maintenance		21.35	21.35	21.35	21.35	
Custom work	fertilizer applications, mixing and delivery		11.15	11.15	11.15	11.15	
Trucking			—	—	—	—	
Removal and storage			81.40	81.40	81.40	81.40	
Twine			—	—	—	—	
Operator labour (self or hired)			10.95	10.95	10.95	10.95	
Interest on operating			5.45	5.35	5.35	5.35	
Total Annual Operating Expenses			225.45	221.50	204.00	200.15	
REVENUE							
Expected yield _____							
Expected price _____							
Total Revenue (Yield x Price)							
CONTRIBUTION MARGIN (Revenue – Operating Expenses)							
OVERHEAD EXPENSES							
Machinery	depreciation		44.35	44.35	44.35	44.35	
	interest on investment		20.10	20.10	20.10	20.10	
Land			—	—	—	—	
Other overhead			7.70	7.70	7.70	7.70	
TOTAL EXPENSES			297.60	293.65	276.15	272.30	
Break-even price on your farm (total expenses/expected yield):							

SOFT RED WINTER WHEAT

OPERATING EXPENSES (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	
Expenses for Grain					
Seed	1.4–1.7 M seeds/acre, certified seed		80.00	80.00	
Fertility	132 kg/ha N		64.20	64.20	
	crop removal	53 kg/ha P ₂ O ₅ (9.8 kg/tonne removal rate)	25.80	25.80	
		33 kg/ha K ₂ O (6.0 kg/tonne removal rate)	10.65	10.65	
Herbicide	broadleaf weeds		10.55	10.55	
Fungicide	fusarium head blight		16.40	16.40	
	leaf disease, if required		10.50	10.50	
Tractor and machine expenses	fuel (14 L conventional, 7 L no till) and lubricants		17.95	9.40	
	repairs and maintenance		20.30	12.45	
Production insurance			8.00	8.00	
Risk Management Program			3.00	3.00	
Marketing board and Grain Financial Protection fees (\$0.89/tonne)			1.95	1.95	
Custom work	fertilizer application, mixing and delivery		11.15	11.15	
	2 pesticide applications		22.35	22.35	
Added expense for IP			–	–	
Trucking (\$9.25/tonne)			20.15	20.15	
Land rent			–	–	
Operator labour (self or hired)			10.15	5.25	
Interest on operating			13.70	12.80	
Total Operating Expenses — Grain			346.80	324.60	
Expenses for Straw (costs based on projected yield of 2.41 tonnes/acre)					
Fertility	crop removal	10 kg/ha P ₂ O ₅ (1.7 kg/tonne removal rate)	4.95	4.95	
		72 kg/ha K ₂ O (12.0 kg/tonne removal rate)	23.50	23.50	
Tractor and machine expenses	fuel (4 L) and lubricants		5.25	5.25	
	repairs and maintenance		3.90	3.90	
Twine			9.00	9.00	
Other			13.90	13.90	
Total Operating Expenses — Straw			60.50	60.50	
Total Operating Expenses			407.30	385.10	
REVENUE					
Expected wheat yield _____					
Expected wheat price _____					
Total Market Revenue (Yield x Price)					
Additional income from IP					
Program payment					
Total Wheat Revenue					
Expected straw yield _____					
Expected straw price _____					
Total Straw Revenue (Yield x Price)					
Total Revenue					
CONTRIBUTION MARGIN (Revenue – Operating Expenses)					
OVERHEAD EXPENSES		Conventional Tillage		No-Till	
		Wheat Only	Wheat & Straw	Wheat Only	Wheat & Straw
Machinery	depreciation	41.80	45.50	25.20	28.90
	interest on investment	19.15	20.75	11.75	13.40
Land		–	–	–	–
Other overhead		7.55	8.60	4.90	5.95
TOTAL EXPENSES		415.30	482.15	366.45	433.35
Break-even price on your farm (total expenses/expected yield):					

HARD RED WINTER WHEAT

OPERATING EXPENSES (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	
Expenses for Grain					
Seed	1.4–1.7 M seeds/acre, certified seed		80.05	80.05	
Fertility	165 kg/ha N		80.25	80.25	
	crop removal	50 kg/ha P ₂ O ₅ (9.8 kg/tonne removal rate)	24.15	24.15	
		31 kg/ha K ₂ O (6.0 kg/tonne removal rate)	9.95	9.95	
Herbicide	broadleaf weeds		10.55	10.55	
	other weed control, if required		–	–	
Fungicide	fusarium head blight		16.40	16.40	
	leaf disease, if required		10.50	10.50	
Tractor and machine expenses	fuel (14 L conventional, 7 L no till) and lubricants		17.95	9.40	
	repairs and maintenance		20.30	12.45	
Production insurance			9.15	9.15	
Risk Management Program			2.80	2.80	
Marketing board and Grain Financial Protection fees (\$0.89/tonne)			1.80	1.80	
Custom work	2 fertilizer applications, mixing and delivery		22.30	22.30	
	2 pesticide applications		22.35	22.35	
Added expense for IP			–	–	
Trucking (\$9.25/tonne)			18.90	18.90	
Land rent			–	–	
Operator labour (self or hired)			10.15	5.25	
Interest on operating			14.70	13.80	
Total Operating Expenses — Grain			372.25	350.05	
Expenses for Straw (costs based on projected yield of 2.41 tonnes/acre)					
Fertility	crop removal	10 kg/ha P ₂ O ₅ (1.7 kg/tonne removal rate)	4.95	4.95	
		72 kg/ha K ₂ O (12.0 kg/tonne removal rate)	23.50	23.50	
Tractor and machine expenses	fuel (4 L) and lubricants		5.25	5.25	
	repairs and maintenance		3.90	3.90	
Twine			9.00	9.00	
Other			13.90	13.90	
Total Operating Expenses — Straw			60.50	60.50	
Total Operating Expenses			432.75	410.55	
REVENUE					
Expected wheat yield _____					
Expected wheat price _____					
Total Market Revenue (Yield x Price)					
Additional income from IP					
Program payment					
Total Wheat Revenue					
Expected straw yield _____					
Expected straw price _____					
Total Straw Revenue (Yield x Price)					
Total Revenue					
CONTRIBUTION MARGIN (Revenue – Operating Expenses)					
OVERHEAD EXPENSES		Conventional Tillage		No-Till	
		Wheat Only	Wheat & Straw	Wheat Only	Wheat & Straw
Machinery	depreciation	41.80	45.50	25.20	28.90
	interest on investment	19.15	20.75	11.75	13.40
Land		–	–	–	–
Other overhead		7.55	8.60	4.90	5.95
TOTAL EXPENSES		440.75	507.60	391.90	458.80
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
Expenses for Grain				
Seed	1.4–1.6 M seeds/acre, certified seed		75.00	
Fertility	101 kg/ha N (actual N)		43.80	
	crop removal	34 kg/ha P ₂ O ₅ (9.8 kg/tonne removal rate)	16.55	
		21 kg/ha K ₂ O (6.0 kg/tonne removal rate)	6.80	
Herbicide	broadleaf weeds		10.55	
	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		17.95	
	repairs and maintenance		20.30	
Production insurance			7.60	
Risk Management Program			3.25	
Marketing board and Grain Financial Protection fees (\$0.89/tonne)			1.25	
Custom work	fertilizer application, mixing and delivery		11.15	
	2 pesticide applications		22.35	
	other		–	
Added expense for IP			–	
Trucking (\$9.25/tonne)			12.90	
Land rent			–	
Operator labour (self or hired)			10.15	
Interest on operating			6.85	
Total Operating Expenses — Grain			282.85	
Expenses for Straw (costs based on projected yield of 2.14 tonnes/acre)				
Fertility	crop removal	9 kg/ha P ₂ O ₅ (1.7 kg/tonne removal rate)	4.40	
		64 kg/ha K ₂ O (12.0 kg/tonne removal rate)	20.85	
Tractor and machine expenses	fuel (4 L) and lubricants		5.25	
	repairs and maintenance		3.90	
Twine			8.00	
Other			13.90	
Total Operating Expenses — Straw			56.30	
Total Operating Expenses			339.15	
REVENUE				
Expected wheat yield _____				
Expected wheat price _____				
Total Market Revenue (Yield x Price)				
Additional income from IP				
Program payment				
Total Wheat Revenue				
Expected straw yield _____				
Expected straw price _____				
Total Straw Revenue (Yield x Price)				
Total Revenue				
CONTRIBUTION MARGIN (Revenue – Operating Expenses)				
OVERHEAD EXPENSES		Wheat Only	Wheat & Straw	
Machinery	depreciation	41.80	45.50	
	interest on investment	19.15	20.75	
Land		–	–	
Other overhead		7.55	8.60	
TOTAL EXPENSES		351.35	414.00	
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 (67-78 kg/ha, 15–20-in. rows) certified, treated seed (with fungicide plus Cruiser insecticide)		91.30	
Fertility	40 kg/ha N		19.45	
	crop removal	30 kg/ha P ₂ O ₅ (14.0 kg/tonne removal rate)	14.15	
		30 kg/ha K ₂ O (14.0 kg/tonne removal rate)	9.45	
Herbicide	annual grass and broadleaf weeds		71.20	
Crop pre-harvest			18.60	
Fungicide, if required	white mould		50.25	
	anthracnose		8.55	
Insecticide			–	
Tractor and machine expenses	fuel (21 L) and lubricants		25.90	
	repairs and maintenance		21.90	
Marketing board fees (\$6.89/tonne)			6.35	
Production insurance			19.10	
Risk Management Program			1.60	
Custom work	fertilizer application, mixing and delivery		11.15	
	5 pesticide applications		55.85	
Trucking (\$9.25/tonne)			8.50	
Drying			–	
Land rent			–	
Operator labour (self or hired)			16.45	
Interest on operating			11.15	
Total Operating Expenses			460.90	
REVENUE				
Expected yield _____				
Expected price _____				
Total Market Revenue (Yield x Price)				
Less pick charges (typically 2%–4%)				
Program payment				
Total Revenue				
CONTRIBUTION MARGIN (Revenue – Operating Expenses)				
OVERHEAD EXPENSES				
Machinery	depreciation		47.25	
	interest on investment		20.50	
Land			–	
Other overhead			6.85	
TOTAL EXPENSES			535.50	
Break-even price on your farm (total expenses/expected yield):				

ORGANIC — GRAIN CORN AND SOYBEANS*

OPERATING EXPENSES (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: 33,000 kernels, certified, organic; soybeans: 220,000 seeds/acre, certified, organic in 21–30-in. rows	111.55	77.00	
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	30.15	32.25	
	repairs and maintenance	24.65	30.35	
Marketing board and Grain Financial Protection fees (\$0.44/tonne (corn), \$1.54/tonne (soybeans))		1.15	1.30	
Certification fees		4.30	4.30	
Production insurance		15.80	19.50	
Risk Management Program		4.75	0.85	
Custom work		–	–	
Added expense for handling organic crops		–	–	
Trucking (\$9.75/tonne corn, \$9.25/tonne soybeans)		26.05	8.10	
Drying (\$18.48/tonne corn)		49.30	–	
Storage (\$2.35/tonne/month x 4 months)		25.05	7.80	
Land rent		–	–	
Operator labour (self or hired)		20.65	21.25	
Labour — hand weed		61.60	92.40	
Interest on operating		13.00	8.60	
Total Operating Expenses		538.00	355.70	
REVENUE				
Expected yield _____				
Expected price _____				
Total Market Revenue (Yield x Price)				
Program payment				
Total Revenue				
CONTRIBUTION MARGIN (Revenue – Operating Expenses)				
OVERHEAD EXPENSES				
Machinery	depreciation	53.75	64.60	
	interest on investment	23.05	28.50	
Land		–	–	
Other overhead		7.40	10.05	
TOTAL EXPENSES		622.20	458.85	
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: 1.4–1.7 M seeds/acre, certified, organic; spelt: 202 kg/ha certified, organic	108.00	134.20		
Fertility	manure, compost**	100.00	100.00		
Herbicide		–	–		
Fungicide		–	–		
Soil maintenance (cover crop, fallow, etc.)* *		50.00	50.00		
Tractor and	fuel (17 L) and lubricants	20.95	20.95		
machine expenses	repairs and maintenance	19.10	19.10		
Production insurance		19.25	15.50		
Risk Management Program		1.70	–		
Marketing board and Grain Financial Protection fee (\$0.89/tonne (wheat))		1.10	–		
Certification fees		4.30	4.30		
Custom work		–	–		
Added expense for handling organic crops		–	–		
Trucking (\$9.25/tonne)		11.65	8.45		
Land rent		–	–		
Operator labour (self or hired)		12.95	12.95		
Labour — hand weed		46.20	46.20		
Interest on operating		16.25	16.90		
Total Operating Expenses — Grain		411.45	428.55		
Expenses for Straw (costs based on projected yield of 2.41 tonnes/acre)					
Tractor and	fuel (4 L) and lubricants	5.25	5.25		
machine expenses	repairs and maintenance	3.90	3.90		
Twine		9.00	9.00		
Other		13.90	13.90		
Total Operating Expenses — Straw		32.05	32.05		
Total Operating Expenses		443.50	460.60		
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					
CONTRIBUTION MARGIN (Revenue – Operating Expenses)					
OVERHEAD EXPENSES		Wheat Only	Wheat & Straw	Spelt Only	Spelt & Straw
Machinery	depreciation	40.70	44.40	40.70	44.40
	interest on investment	17.90	19.55	17.90	19.55
Land		–	–	–	–
Other overhead		6.25	7.30	6.25	7.30
TOTAL EXPENSES		476.30	514.75	493.40	531.85
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		
Expenses for Grain					
Seed	barley: 168 kg/ha certified, organic; oats: 118 kg/ha certified, organic	95.45	78.00		
Fertility	manure/compost**	–	–		
Herbicide		–	–		
Fungicide		–	–		
Soil maintenance (cover crop, fallow etc.)**		50.00	50.00		
Tractor and machine expenses	fuel (17 L) and lubricants	22.00	22.00		
	repairs and maintenance	19.85	19.85		
Production insurance		6.40	6.40		
Risk Management Program		7.65	6.15		
Marketing board fee (\$1.31/tonne (barley), \$1.47/tonne (oats))		1.55	1.40		
Certification fees		4.30	4.30		
Custom work		–	–		
Added expense for handling organic crops		–	–		
Trucking (\$9.25/tonne)		11.10	8.90		
Land rent		–	–		
Operator labour (self or hired)		15.40	15.40		
Labour — hand weed		46.20	46.20		
Interest on operating		11.50	10.60		
Total Operating Expenses — Grain		291.40	269.20		
Expenses for Straw (costs based on projected yield of 1.89 tonnes/acre (barley), 2.21 tonnes/acre (oats))					
Tractor and machine expenses	fuel (4 L) and lubricants	5.25	5.25		
	repairs and maintenance	3.90	3.90		
Twine		7.05	8.25		
Other		13.90	13.90		
Total Operating Expenses — Straw		30.10	31.30		
Total Operating Expenses		321.50	300.50		
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					
CONTRIBUTION MARGIN (Revenue – Operating Expenses)					
OVERHEAD EXPENSES		Barley Only	Barley & Straw	Oats Only	Oats & Straw
Machinery	depreciation	42.70	46.40	42.70	46.40
	interest on investment	18.60	20.25	18.60	20.25
Land		–	–	–	–
Other overhead		6.30	7.35	6.30	7.35
TOTAL EXPENSES		359.00	395.50	336.80	374.50
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 — and can be ordered through ServiceOntario, available:

- online at 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. For results of the Custom Farmwork and Equipment Rental Rates survey, go to ontario.ca/agbusiness and search for “Ontario cost of production and budgets.” 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), 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 = 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
 15.00 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 ²	1 cubic yard = 0.76 m ³	1 fluid ounce (imp.) = 28.41 mL	1 ounce = 28.35 g
1 square yard = 0.84 m ²	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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Agricultural Information Contact Centre:

1-877-424-1300

1-855-696-2811 (TTY)

E-mail: ag.info.omafra@ontario.ca

ontario.ca/omafra