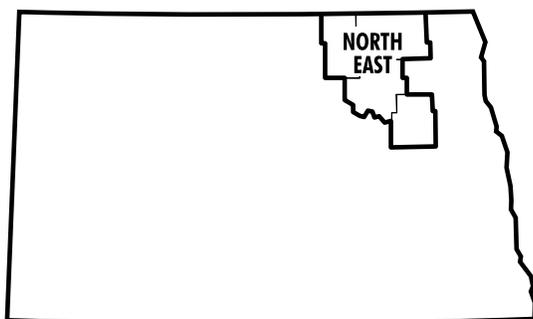




FARM MANAGEMENT PLANNING GUIDE

December 2013

Projected 2014 Crop Budgets



North East North Dakota

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The 2014 crop budgets provide an estimate of revenues and costs for selected crops. Each set of budgets are developed for a multi-county region. There is considerable variation in soil type and productivity, weather conditions, as well as management and production practices within each region. Therefore, **THESE BUDGETS ARE ONLY INTENDED TO BE USED AS A GUIDE. EVERY INDIVIDUAL IS HIGHLY ENCOURAGED TO DEVELOP HIS/HER OWN BUDGETS!**

The profitability budget accounts for full economic opportunity costs for land and machinery investment, regardless of farm operator equity position. The bottom line is the return to labor and management. This is the expected “payment” to the producer for the labor and managerial efforts required by the crop enterprise. Each individual must make the decision whether it is sufficient.

The budget can be changed to conform to the more common definition of accounting profit (return to unpaid labor and management, and owner equity) by

replacing the machinery investment and land charge cost items with your per acre interest and rental expense of machinery and land, and real estate tax if land is owned.

The budget can be used for long run decisions if the revenues and costs are realistic for several years. (Crop prices, direct costs, and the land charge are best estimates for only the 2014 crop year, but crop yields are historic averages and machinery ownership costs are an average for the total length of ownership). If the budget shows a high return to labor and management, and is representative for several years, increased acreage and corresponding investment should be considered. However, if long-run returns to labor and management are unsatisfactory the best decision may be to exit the crop enterprise and employ the machinery and land investment, and labor and management, in a different enterprise or investment.

For short-run planning decisions you can omit the indirect costs if the land and machinery required to produce the different enterprises are in place. Simply compare the crop enterprises by calculating return over direct costs. Labor requirements and risk should also be considered. Insurance is not available for some crops.

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The budget can be used to estimate cashflow by making a few modifications. Machinery depreciation should be omitted and the machinery investment number replaced with your per acre principal and interest payment on machinery debt. For owned land, the land charge should be replaced with your per acre real estate tax and principal and interest payment on land debt.

Currently, a Farm Bill has not been authorized. **Direct and counter-cyclical payments** have been omitted from the budgets because those payments are tied to historic farm program base acres and payment yields, not to current crop selection or production. Direct payments for this region have been \$11.50 per acre when averaged over all crop acreage. No counter-cyclical payments are expected. If there is an extension of the current Farm Bill, the Average Crop Revenue Election program may provide payments.

Primary Assumptions:

Crops are planted on dryland recrop ground. Costs of moving crop to local market/storage are included.

Market Price: Best estimates of NDSU extension economists. The greater of projected market price and marketing loan rate is used.

Market Yields: Average yield for the 7 year period 2006-2012, after the low and high yield years are removed. Yields for safflower, yellow mustard, buckwheat, millet, rye and chickpeas are from NDSU extension agronomists and industry sources.

Fertilizer: Cost of fertilizer applied, based on soil test, to meet yield goal of 130% of market yield. N fertilizer can be reduced if previous crop was soybean, dry bean, field peas or lentil.

Soil test - recrop:
 Nitrogen - 34 lb
 Phosphorus - 6 ppm
 Potassium - 248 ppm

Fertilizer prices:
 Nitrogen - .46/lb
 Phosphorus - .42/lb
 Potassium - .39/lb

Seed Prices:

Spring Wheat	12.25/bu
Durum	11.25/bu
Barley	11.00/bu
Corn grain RR/Bt	2.90/thou.kern.
Corn grain RR	2.60/thou.kern.
Soybean RR2	.352/thou.kern.
Dry Beans	.90/lb
Oil Sunflower	1.42/thou.kern.
Conf. Sunflower	2.45/thou.kern.
Canola	9.70/lb
Flax	19.00/bu
Field Peas	14.00/bu
Oats	7.00/bu
Mustard	1.70/lb
Buckwheat	.67/lb
Millet	.38/lb
Winter Wheat	11.50/bu

Fuel prices:

Diesel	3.25/gal
Gas	3.05/gal

Lubrication charge: 15% of fuel cost

Crop Insurance: Coverage levels are 70% on all insurable crops. Yield Protection or APH insurance estimates are used, except for Revenue Protection on all wheat, barley, corn, soybeans, corn, canola, sunflowers and dry beans.

Miscellaneous: soil testing, machinery rent and custom work.

Operating Interest: Direct costs charged 4.25% interest for 6 month period.

Misc. Overhead: Machinery housing and insurance at .5% and .85%, respectively, of average machinery investment. Also, liability insurance and license fees of trucks. In addition, \$3 per acre is assumed for general farm utilities, farm publications, meetings, dues, income tax preparation, legal fees, etc.

Land charge = average cash rent.

Machinery investment: 4.5% real interest rate, over the years of machine ownership, is charged on average machinery investment. The real, or inflation adjusted, rate is the commercial rate minus the inflation rate. Ave. mach. investment = (Purchase price + Disposal price)/2

Depreciation = (Purchase price - disposal price / years ownership)

Spring Wheat

Durum

	Per Acre	Your Figures	Per Acre	Your Figures
Market Yield	45	_____	40	_____
Market Price	6.83	_____	7.12*	_____
MARKET INCOME	307.35	_____	284.80	_____
DIRECT COSTS				
-Seed	21.44	_____	22.50	_____
-Herbicides	21.80	_____	21.80	_____
-Fungicides**	5.50	_____	5.50	_____
-Insecticides***	0.00	_____	0.00	_____
-Fertilizer	68.07	_____	58.77	_____
-Crop Insurance	18.26	_____	18.18	_____
-Fuel & Lubrication	19.69	_____	19.31	_____
-Repairs	17.90	_____	17.77	_____
-Drying	0.00	_____	0.00	_____
-Miscellaneous	1.50	_____	1.50	_____
-Operating Interest	3.70	_____	3.51	_____
SUM OF LISTED DIRECT COSTS	177.86	=====	168.84	=====
INDIRECT (FIXED) COSTS				
-Misc. Overhead	7.11	_____	7.02	_____
-Machinery Depreciation	20.69	_____	20.45	_____
-Machinery Investment	11.92	_____	11.79	_____
-Land Charge	55.50	_____	55.50	_____
SUM OF LISTED INDIRECT COSTS	95.22	=====	94.76	=====
SUM OF ALL LISTED COSTS	273.08	_____	263.60	_____
RETURN TO LABOR & MANAGEMENT	34.27	_____	21.20	_____
LISTED COSTS PER BUDGET UNIT	(bu)		(bu)	
-Direct Costs	3.95	_____	4.22	_____
-Indirect Costs	2.12	_____	2.37	_____
-Total Costs	6.07	_____	6.59	_____

Wheat notes:

*Durum price is for milling quality. There is high risk of lower quality and lower price.

**Includes seed treatment (\$1.50-\$2.00) and early season foliar fungicide (\$2-\$4.50). Late season fungicides are often warranted in this region. For fusarium head blight (scab) control, prothioconazole or metconazole containing products are highly recommended when a more susceptible cultivar is grown and/or when conditions are favorable for infection.

***Wheat midge insecticide would cost about \$6. Cereal grain aphid insecticide would cost about \$6.

Malting Barley

Corn Grain

	Per Acre	Your Figures	Per Acre	Your Figures
Market Yield	64		104	
Market Price	5.12*		4.00	
MARKET INCOME	327.68		416.00	
DIRECT COSTS				
-Seed	22.00		83.78*	
-Herbicides	19.00		20.00	
-Fungicides	5.50**		0.00	
-Insecticides	0.00		0.00	
-Fertilizer	58.72		83.75	
-Crop Insurance	16.45		43.39	
-Fuel & Lubrication	22.73		28.69	
-Repairs	19.44		23.34	
-Drying	0.00		21.84	
-Miscellaneous	1.50		1.50	
-Operating Interest	3.51		6.51	
	=====		=====	
SUM OF LISTED DIRECT COSTS	168.85		312.79	
INDIRECT (FIXED) COSTS				
-Misc. Overhead	7.84		9.67	
-Machinery Depreciation	23.16		32.59	
-Machinery Investment	13.75		18.76	
-Land Charge	55.50		55.50	
	=====		=====	
SUM OF LISTED INDIRECT COSTS	100.25		116.52	
SUM OF ALL LISTED COSTS	269.11		429.32	
RETURN TO LABOR & MANAGEMENT	58.57		(13.32)	
LISTED COSTS PER BUDGET UNIT	(bu)		(bu)	
-Direct Costs	2.64		3.01	
-Indirect Costs	1.57		1.12	
-Total Costs	4.20		4.13	

Barley notes:

*On average, about 50% of production is feed quality. Use \$3.35 estimate for feed barley price.

**Includes seed treatment (\$1.50-\$2.00) and early season foliar fungicide (\$2-\$4.50). Late season fungicides, prothioconazole or metconazole containing products, for fusarium head blight (scab) control are recommended when conditions are favorable for infection.

Corn notes:

*RR/Bt corn and RR corn without Bt Trait for corn borer refuge. Cost includes insecticide seed treatment for wireworm, rootworm, white grub and suppression of cutworm.

Soybeans

Drybeans*

	Per Acre	Your Figures	Per Acre	Your Figures
Market Yield	29	_____	1500	_____
Market Price	10.95	_____	0.31	_____
MARKET INCOME	317.55	_____	465.00	_____
DIRECT COSTS				
-Seed	69.60*	_____	45.00	_____
-Herbicides	20.00	_____	45.30**	_____
-Fungicides	0.00	_____	20.00***	_____
-Insecticides	7.00**	_____	0.00	_____
-Fertilizer	11.24	_____	41.08	_____
-Crop Insurance	26.81	_____	39.29	_____
-Fuel & Lubrication	20.14	_____	22.64	_____
-Repairs	19.39	_____	22.17	_____
-Drying	0.00	_____	0.00	_____
-Miscellaneous	4.75	_____	12.75	_____
-Operating Interest	3.80	_____	5.27	_____
SUM OF LISTED DIRECT COSTS	182.74	=====	253.51	=====
INDIRECT (FIXED) COSTS				
-Misc. Overhead	7.32	_____	8.03	_____
-Machinery Depreciation	22.44	_____	27.06	_____
-Machinery Investment	13.17	_____	15.64	_____
-Land Charge	55.50	_____	55.50	_____
SUM OF LISTED INDIRECT COSTS	98.43	=====	106.23	=====
SUM OF ALL LISTED COSTS	281.18	_____	359.73	_____
RETURN TO LABOR & MANAGEMENT	36.37	_____	105.27	_____
LISTED COSTS PER BUDGET UNIT				
	(bu)		(lb)	
-Direct Costs	6.30	_____	0.17	_____
-Indirect Costs	3.39	_____	0.07	_____
-Total Costs	9.70	_____	0.24	_____

Soybean notes:

*RR2 (glyphosate) resistant soybeans. The cost includes \$8 for inoculant and fungicide treatment in addition to seed expense.

**Soybean aphid and/or spider mite insecticide

Drybean notes:

*Acreage limitations existed under the 2008-2012 farm bill with possible forfeiture of government payments on base acres planted to drybeans. Rules for 2014 are unknown as of 12/10/2013.

**Includes desiccant prior to straight cutting.

***Fungicide for white mold. A second treatment may be necessary. Fungicide for rust at \$2-\$4.50 plus application maybe necessary.

Oil Sunflower

Confectionery Sunflower

	Per Acre	Your Figures	Per Acre	Your Figures
Market Yield	1340	_____	1170	_____
Market Price	0.211	_____	0.312	_____
MARKET INCOME	282.74	_____	365.04	_____
DIRECT COSTS				
-Seed	31.24*	_____	46.55*	_____
-Herbicides	26.70	_____	28.90	_____
-Fungicides	0.00**	_____	0.00**	_____
-Insecticides	7.00***	_____	14.00****	_____
-Fertilizer	34.74	_____	28.35	_____
-Crop Insurance	16.29	_____	27.34	_____
-Fuel & Lubrication	20.94	_____	20.52	_____
-Repairs	18.71	_____	18.57	_____
-Drying	4.02	_____	3.51	_____
-Miscellaneous	9.50	_____	17.50	_____
-Operating Interest	3.59	_____	4.36	_____
	=====	=====	=====	=====
SUM OF LISTED DIRECT COSTS	172.73	_____	209.60	_____
INDIRECT (FIXED) COSTS				
-Misc. Overhead	7.72	_____	7.62	_____
-Machinery Depreciation	23.00	_____	22.74	_____
-Machinery Investment	14.05	_____	13.92	_____
-Land Charge	55.50	_____	55.50	_____
	=====	=====	=====	=====
SUM OF LISTED INDIRECT COSTS	100.27	_____	99.78	_____
SUM OF ALL LISTED COSTS	273.00	_____	309.39	_____
RETURN TO LABOR & MANAGEMENT	9.74	_____	55.65	_____
LISTED COSTS PER BUDGET UNIT				
	(lb)		(lb)	
-Direct Costs	0.13	_____	0.18	_____
-Indirect Costs	0.07	_____	0.09	_____
-Total Costs	0.20	_____	0.26	_____

Oil Sunflower notes:

*Cost includes seed treatment for control of wireworm and flea beetle.

**Fungicide for rust would cost \$4 plus application.

***One spraying for head feeding insects (red seed weevil, lygus bug and banded moths). Custom application cost of \$8 is under "Miscellaneous."

Confectionery Sunflower notes:

*Cost includes seed treatment for control of wireworm and flea beetle.

**Fungicide for rust would cost \$4 plus application.

***Two sprayings for head feeding insects (red seed weevil, lygus bug and banded moths) at about \$7 per application. Each custom application cost of \$8 is under "Miscellaneous."

Canola

Flax

	Per Acre	Your Figures	Per Acre	Your Figures
Market Yield	1720		22	
Market Price	0.20		13.09	
MARKET INCOME	344.00		287.98	
DIRECT COSTS				
-Seed	48.50*		15.20	
-Herbicides	20.50		19.60	
-Fungicides	0.00**		0.00*	
-Insecticides	0.00		0.00	
-Fertilizer	80.43		32.62	
-Crop Insurance	14.81		11.21	
-Fuel & Lubrication	17.50		19.17	
-Repairs	17.04		18.44	
-Drying	0.00		0.00	
-Miscellaneous	1.50		1.50	
-Operating Interest	4.26		2.50	
SUM OF LISTED DIRECT COSTS	204.53		120.24	
INDIRECT (FIXED) COSTS				
-Misc. Overhead	6.95		7.23	
-Machinery Depreciation	20.21		20.97	
-Machinery Investment	11.80		13.08	
-Land Charge	55.50		55.50	
SUM OF LISTED INDIRECT COSTS	94.46		96.77	
SUM OF ALL LISTED COSTS	298.99		217.01	
RETURN TO LABOR & MANAGEMENT	45.01		70.97	
LISTED COSTS PER BUDGET UNIT	(lb)		(bu)	
-Direct Costs	0.12		5.47	
-Indirect Costs	0.05		4.40	
-Total Costs	0.17		9.86	

Canola notes:

*Cost includes insecticide seed treatment for flea beetles.

**Fungicide for white mold would cost about \$18 plus application.

Flax notes:

*Fungicide treatment for pasmo has shown good yield response.

Field Peas

Oats

	Per Acre	Your Figures	Per Acre	Your Figures
Market Yield	37		69	
Market Price	7.20*		3.00	
MARKET INCOME	266.40		207.00	
DIRECT COSTS				
-Seed	42.00**		14.00	
-Herbicides	27.80		5.20	
-Fungicides	1.50		0.00	
-Insecticides	0.00		0.00	
-Fertilizer	12.73		52.99	
-Crop Insurance	10.61		11.83	
-Fuel & Lubrication	20.62		23.11	
-Repairs	19.92		19.58	
-Drying	0.00		0.00	
-Miscellaneous	9.25		1.50	
-Operating Interest	3.07		2.72	
	=====	=====	=====	=====
SUM OF LISTED DIRECT COSTS	147.50		130.94	
INDIRECT (FIXED) COSTS				
-Misc. Overhead	7.44		7.93	
-Machinery Depreciation	23.39		23.40	
-Machinery Investment	13.29		13.88	
-Land Charge	55.50		55.50	
	=====	=====	=====	=====
SUM OF LISTED INDIRECT COSTS	99.62		100.71	
SUM OF ALL LISTED COSTS	247.11		231.65	
RETURN TO LABOR & MANAGEMENT	19.29		(24.65)	
LISTED COSTS PER BUDGET UNIT	(bu)		(bu)	
-Direct Costs	3.99		1.90	
-Indirect Costs	2.69		1.46	
-Total Costs	6.88		3.36	

Field Pea notes:

*Yellow pea food quality price. Use \$9.25 for green pea food quality and about \$5.00 for feed quality peas.

**Yellow pea seed cost, use \$54 per acre for green peas.

Yellow Mustard

Buckwheat

	Per Acre	Your Figures	Per Acre	Your Figures
Market Yield	950	_____	950	_____
Market Price	0.385	_____	0.286	_____
MARKET INCOME	365.75	_____	271.70	_____
DIRECT COSTS				
-Seed	20.40	_____	33.50	_____
-Herbicides	13.50	_____	11.40	_____
-Fungicides	0.00	_____	0.00	_____
-Insecticides	6.00*	_____	0.00	_____
-Fertilizer	33.11	_____	19.28	_____
-Crop Insurance	27.76	_____	0.00*	_____
-Fuel & Lubrication	18.08	_____	21.13	_____
-Repairs	17.85	_____	19.50	_____
-Drying	0.00	_____	0.00	_____
-Miscellaneous	1.50	_____	1.50	_____
-Operating Interest	2.94	_____	2.26	_____
SUM OF LISTED DIRECT COSTS	141.14	=====	108.57	=====
INDIRECT (FIXED) COSTS				
-Misc. Overhead	6.97	_____	7.38	_____
-Machinery Depreciation	20.55	_____	22.16	_____
-Machinery Investment	12.37	_____	13.60	_____
-Land Charge	55.50	_____	55.50	_____
SUM OF LISTED INDIRECT COSTS	95.38	=====	98.64	=====
SUM OF ALL LISTED COSTS	236.52	_____	207.21	_____
RETURN TO LABOR & MANAGEMENT	129.23	_____	64.49	_____
LISTED COSTS PER BUDGET UNIT	(lb)		(lb)	
-Direct Costs	0.15	_____	0.11	_____
-Indirect Costs	0.10	_____	0.10	_____
-Total Costs	0.25	_____	0.22	_____

Yellow Mustard notes:

*Insecticide seed treatment for flea beetles.

Buckwheat notes:

*Crop insurance is not available in this region.

Millet

Winter Wheat

	Per Acre	Your Figures	Per Acre	Your Figures
Market Yield	1600		52*	
Market Price	0.09		6.12	
MARKET INCOME	144.00		318.24	
DIRECT COSTS				
-Seed	9.50		13.80	
-Herbicides	3.10		23.70	
-Fungicides	0.00		9.00	
-Insecticides	0.00		0.00	
-Fertilizer	27.02		81.09	
-Crop Insurance	0.00		19.33	
-Fuel & Lubrication	20.29		16.24	
-Repairs	18.59		16.40	
-Drying	0.00		0.00	
-Miscellaneous	1.50		7.50	
-Operating Interest	1.70		3.98	
	=====	=====	=====	=====
SUM OF LISTED DIRECT COSTS	81.71		191.04	
INDIRECT (FIXED) COSTS				
-Misc. Overhead	7.29		6.70	
-Machinery Depreciation	21.63		18.90	
-Machinery Investment	12.94		10.35	
-Land Charge	55.50		55.50	
	=====	=====	=====	=====
SUM OF LISTED INDIRECT COSTS	97.36		91.46	
SUM OF ALL LISTED COSTS	179.06		282.50	
RETURN TO LABOR & MANAGEMENT	(35.06)		35.74	
LISTED COSTS PER BUDGET UNIT	(lb)		(bu)	
-Direct Costs	0.05		3.67	
-Indirect Costs	0.06		1.76	
-Total Costs	0.11		5.43	

Winter Wheat notes:

*Yield is per harvested acre. There is some risk of acreage abandonment in spring.

2014 Machinery List

Machine	Purch. Price	Annual Use	Years to trade	Trade in	Deprec.	Invest.	Repairs	Ac/hr
FWA 140HP Tractor	125000	400 hr	20	39106	10.74 /hr	9.23 /hr	12.35 /hr	
FWA 180HP Tractor	169300	500 hr	15	48623	16.09 /hr	9.81 /hr	16.73 /hr	
4WD 340HP Tractor	223100	500 hr	15	64074	21.20 /hr	12.92 /hr	12.60 /hr	
SP Combine (base unit)	271000	250 hr	12	65426	68.52 /hr	30.28 /hr	42.70 /hr	
Tandem Truck (used)	37300	150 hr	15	11900	11.29 /hr	7.38 /hr	7.53 /hr	
Semi & Trailer (used)	41800	150 hr	10	12000	19.87 /hr	8.07 /hr	9.20 /hr	
Pick-up Truck	29500	300 hr	10	5800	7.90 /hr	2.65 /hr	3.40 /hr	
Swather 30 ft	29400	1000 ac	20	6971	1.12 /ac	0.82 /ac	0.48 /ac	13.1
Sprayer 90 ft	37300	5000 ac	10	18559	0.38 /ac	0.25 /ac	0.48 /ac	42.5
Chisel Plow 38 ft	41600	3000 ac	15	24336	0.38 /ac	0.49 /ac	0.92 /ac	19.6
Field Cultivator 48 ft	47700	3000 ac	15	27862	0.44 /ac	0.57 /ac	0.84 /ac	24.7
Tandem Disk 28 ft	33000	800 ac	20	9442	1.47 /ac	1.19 /ac	0.84 /ac	13.6
Heavy Harrow 70 ft	29800	2000 ac	20	17400	0.31 /ac	0.53 /ac	0.33 /ac	39.7
Air Seeder 40 ft	173800	2400 ac	10	88823	3.53 /ac	2.46 /ac	6.01 /ac	17.0
Planter 16-30	108400	1400 ac	15	45061	3.02 /ac	2.47 /ac	4.49 /ac	14.2
Corn head	56400	800 ac	12	16151	4.19 /ac	2.04 /ac	1.31 /ac	6.8
Grain head w/pu	15000	1200 ac	12	4360	0.74 /ac	0.36 /ac	0.24 /ac	10.2
Grain str. cut 30 ft	25000	1000 ac	15	5083	1.33 /ac	0.68 /ac	0.39 /ac	10.2
Head w/sunf pans 30 ft	30100	600 ac	20	3079	2.25 /ac	1.24 /ac	0.47 /ac	10.2
Flex head 30 ft	37100	1000 ac	20	3400	1.68 /ac	0.91 /ac	0.57 /ac	10.2
Rock picker	21400	50 hr	20	6849	0.49 /ac	0.42 /ac	0.32 /ac	29.1
Grain Cart	29300	100 hr	20	5000	12.15 /hr	7.72 /hr	7.40 /hr	
Grain auger	12200	50 hr	20	710	11.49 /hr	5.81 /hr	4.60 /hr	

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