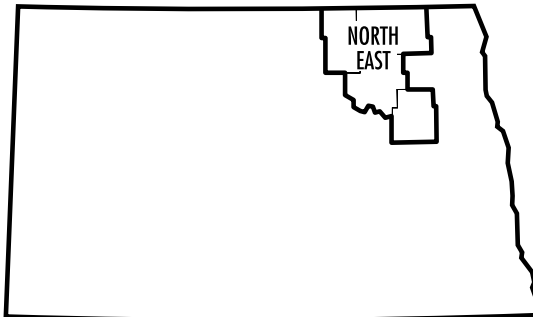




FARM MANAGEMENT PLANNING GUIDE

February 2024

Projected 2024 Crop Budgets



North East North Dakota

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Note: This region consists of four counties:
Cavalier, Nelson, Ramsey and Towner.

The 2024 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 2024 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.

The 2018 Farm Bill continues the Price Loss Coverage (PLC) and Agricultural Risk Coverage (ARC) support programs. PLC and ARC payments have been omitted from the budgets because those payments, if any, are tied to historic farm program base acres, not to current crop selection or production.

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 2016-2022, 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. N fertilizer can be reduced if previous crop was soybean, dry bean, field peas or lentil.

Fertilizer prices:

Nitrogen	- .53/lb
Phosphorus	- .67/lb
Potassium	- .44/lb

Seed Prices:

Spring Wheat	15.00/bu
Durum	17.00/bu
Barley	12.00/bu
Corn GM	3.00/thou.kern.
Soybean GM	.34/thou.kern.
Dry Beans	1.05/thou.kern.
Oil Sunflower	1.71/thou.kern.
Conf. Sunflower	3.02/thou.kern.
Canola	15.80/lb
Flax	20.00/bu
Field Peas	20.00/bu
Oats	9.00/bu
Mustard	.98/lb
Buckwheat	.52/lb
Millet	.60/lb
Winter Wheat	13.00/bu

Fuel prices:

Diesel	3.55/gal
Gasoline	2.90/gal

Lubrication charge: 15% of fuel cost

Crop Insurance: Revenue Protection was used for all wheat, barley, soybeans, corn, canola, sunflowers, field peas, dry beans and lentils with a 75% coverage level and enterprise units. APH insurance was used for other crops for which 70% coverage and optional units were assumed.

Miscellaneous: soil testing, machinery rent and custom work.

Operating Interest: Direct costs charged 8.0% 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, \$5.00 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: 4.0% 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	58	_____	56	_____
Market Price	7.03	_____	8.27*	_____
MARKET REVENUE	407.74	_____	463.12	_____
DIRECT COSTS				
-Seed	26.25	_____	34.00	_____
-Herbicides	23.90	_____	23.90	_____
-Fungicides**	18.50	_____	18.50	_____
-Insecticides***	0.00	_____	0.00	_____
-Fertilizer	106.83	_____	102.40	_____
-Crop Insurance	9.00	_____	10.90	_____
-Fuel & Lubrication	24.15	_____	23.99	_____
-Repairs	23.82	_____	23.76	_____
-Drying	0.00	_____	0.00	_____
-Miscellaneous	2.00	_____	2.00	_____
-Operating Interest	9.38	_____	9.58	_____
	=====	=====	=====	=====
SUM OF LISTED DIRECT COSTS	243.83	_____	249.03	_____
INDIRECT (FIXED) COSTS				
-Misc. Overhead	10.47	_____	10.43	_____
-Machinery Depreciation	28.02	_____	27.88	_____
-Machinery Investment	14.41	_____	14.35	_____
-Land Charge	60.00	_____	60.00	_____
	=====	=====	=====	=====
SUM OF LISTED INDIRECT COSTS	112.90	_____	112.66	_____
SUM OF ALL LISTED COSTS	356.73	_____	361.69	_____
RETURN TO LABOR & MANAGEMENT	51.01	_____	101.43	_____
LISTED COSTS PER BUDGET UNIT	(bu):		(bu):	
-Direct Costs	4.20	_____	4.45	_____
-Indirect Costs	1.95	_____	2.01	_____
-Total Costs	6.15	_____	6.46	_____

Wheat notes:

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

**Includes seed treatment, an early season foliar fungicide, and a late season fungicide which is recommended when conditions are favorable for fusarium head blight (scab).

***Cereal grain aphid insecticide would cost about \$4. Wheat midge insecticide would cost about \$6.

Malting Barley

Corn Grain

	Per Acre	Your Figures	Per Acre	Your Figures
Market Yield	73	_____	125	_____
Market Price	5.17*	_____	4.40	_____
MARKET REVENUE	377.41	_____	550.00	_____
DIRECT COSTS				
-Seed	24.00	_____	91.50*	_____
-Herbicides	22.70	_____	35.50	_____
-Fungicides	18.50	_____	0.00	_____
-Insecticides	0.00	_____	0.00	_____
-Fertilizer	80.47	_____	123.29	_____
-Crop Insurance	5.00	_____	15.70	_____
-Fuel & Lubrication	25.12	_____	35.37	_____
-Repairs	24.00	_____	31.53	_____
-Drying	0.00	_____	25.00	_____
-Miscellaneous	2.00	_____	2.00	_____
-Operating Interest	8.07	_____	14.40	_____
	=====	=====	=====	=====
SUM OF LISTED DIRECT COSTS	209.86	_____	374.29	_____
INDIRECT (FIXED) COSTS				
-Misc. Overhead	10.72	_____	14.08	_____
-Machinery Depreciation	28.76	_____	46.57	_____
-Machinery Investment	14.67	_____	23.26	_____
-Land Charge	60.00	_____	60.00	_____
	=====	=====	=====	=====
SUM OF LISTED INDIRECT COSTS	114.15	_____	143.91	_____
SUM OF ALL LISTED COSTS	324.01	_____	518.20	_____
RETURN TO LABOR & MANAGEMENT	53.40	_____	31.80	_____
LISTED COSTS PER BUDGET UNIT	(bu):		(bu):	
-Direct Costs	2.87	_____	2.99	_____
-Indirect Costs	1.56	_____	1.15	_____
-Total Costs	4.44	_____	4.15	_____

Barley notes:

*There is risk of not making malting barley quality. Use \$3.75 for feed barley.

**Includes seed treatment, an early season foliar fungicide, and a late season fungicide which is recommended when conditions are favorable for fusarium head blight (scab).

Corn notes:

*GM corn with herbicide tolerance and above ground insect control traits.

Soybeans

Drybeans

	Per Acre	Your Figures	Per Acre	Your Figures
Market Yield	33	_____	1630	_____
Market Price	10.95	_____	0.34	_____
MARKET REVENUE	361.35	_____	554.20	_____
DIRECT COSTS				
-Seed	65.80*	_____	86.63	_____
-Herbicides	31.40	_____	54.70*	_____
-Fungicides	0.00	_____	20.00**	_____
-Insecticides	4.00**	_____	0.00	_____
-Fertilizer	19.62	_____	50.16	_____
-Crop Insurance	9.50	_____	19.50	_____
-Fuel & Lubrication	23.58	_____	26.60	_____
-Repairs	24.50	_____	27.42	_____
-Drying	0.00	_____	0.00	_____
-Miscellaneous	5.50	_____	15.00	_____
-Operating Interest	7.36	_____	12.00	_____
	=====	=====	=====	=====
SUM OF LISTED DIRECT COSTS	191.26	_____	312.01	_____
INDIRECT (FIXED) COSTS				
-Misc. Overhead	10.46	_____	11.16	_____
-Machinery Depreciation	29.00	_____	33.47	_____
-Machinery Investment	15.16	_____	17.41	_____
-Land Charge	60.00	_____	60.00	_____
	=====	=====	=====	=====
SUM OF LISTED INDIRECT COSTS	114.62	_____	122.04	_____
SUM OF ALL LISTED COSTS	305.88	_____	434.05	_____
RETURN TO LABOR & MANAGEMENT	55.47	_____	120.15	_____
LISTED COSTS PER BUDGET UNIT	(bu):		(lb):	
-Direct Costs	5.80	_____	0.191	_____
-Indirect Costs	3.47	_____	0.075	_____
-Total Costs	9.27	_____	0.266	_____

Soybean notes:

*GM soybeans with herbicide tolerance. The cost includes \$8 for inculant and fungicide treatment in addition to seed expense.

**Insecticide for soybean aphid, spider mite, or foliage-feeding caterpillars.

Drybean notes:

*Includes dessicant prior to straight cutting.

**Fungicide for white mold. A second treatment may be necessary. Fungicide for rust at \$4-\$12 plus application maybe necessary.

Oil Sunflower

Confection Sunflower

	Per Acre	Your Figures	Per Acre	Your Figures
Market Yield	1940	_____	1460	_____
Market Price	0.201	_____	0.312	_____
MARKET REVENUE	389.94	_____	455.52	_____
DIRECT COSTS				
-Seed	37.62	_____	57.38	_____
-Herbicides	28.60	_____	31.60	_____
-Fungicides	0.00*	_____	0.00*	_____
-Insecticides	5.00**	_____	10.00**	_____
-Fertilizer	65.44	_____	43.87	_____
-Crop Insurance	15.50	_____	24.50	_____
-Fuel & Lubrication	25.52	_____	24.33	_____
-Repairs	24.22	_____	23.73	_____
-Drying	7.76	_____	7.04	_____
-Miscellaneous	11.50	_____	21.00	_____
-Operating Interest	8.85	_____	9.74	_____
	=====	=====	=====	=====
SUM OF LISTED DIRECT COSTS	230.01	_____	253.19	_____
INDIRECT (FIXED) COSTS				
-Misc. Overhead	11.27	_____	10.97	_____
-Machinery Depreciation	30.96	_____	29.95	_____
-Machinery Investment	16.70	_____	16.27	_____
-Land Charge	60.00	_____	60.00	_____
	=====	=====	=====	=====
SUM OF LISTED INDIRECT COSTS	118.93	_____	117.19	_____
SUM OF ALL LISTED COSTS	348.94	_____	370.38	_____
RETURN TO LABOR & MANAGEMENT	41.00	_____	85.14	_____
LISTED COSTS PER BUDGET UNIT	(lb):		(lb):	
-Direct Costs	0.119	_____	0.173	_____
-Indirect Costs	0.061	_____	0.080	_____
-Total Costs	0.180	_____	0.254	_____

Oil Sunflower notes:

*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."

Confection Sunflower notes:

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

**Two sprayings for head feeding insects (red seed weevil, lygus bug and banded moths) at about \$5 per application. Each custom application cost of \$8 is under "Miscellaneous."

Canola

Flax

	Per Acre	Your Figures	Per Acre	Your Figures
Market Yield	2020	_____	25	_____
Market Price	0.21	_____	11.33	_____
MARKET REVENUE	424.20	_____	283.25	_____
DIRECT COSTS				
-Seed	79.00	_____	20.00	_____
-Herbicides	15.60	_____	27.10	_____
-Fungicides	0.00*	_____	0.00*	_____
-Insecticides	0.00	_____	0.00	_____
-Fertilizer	117.03	_____	43.28	_____
-Crop Insurance	11.00	_____	15.00	_____
-Fuel & Lubrication	23.45	_____	23.00	_____
-Repairs	23.52	_____	24.38	_____
-Drying	0.00	_____	0.00	_____
-Miscellaneous	2.00	_____	2.00	_____
-Operating Interest	10.86	_____	6.19	_____
	=====	=====	=====	=====
SUM OF LISTED DIRECT COSTS	282.46	_____	160.95	_____
INDIRECT (FIXED) COSTS				
-Misc. Overhead	10.24	_____	10.30	_____
-Machinery Depreciation	28.53	_____	28.58	_____
-Machinery Investment	14.36	_____	14.94	_____
-Land Charge	60.00	_____	60.00	_____
	=====	=====	=====	=====
SUM OF LISTED INDIRECT COSTS	113.13	_____	113.82	_____
SUM OF ALL LISTED COSTS	395.59	_____	274.77	_____
RETURN TO LABOR & MANAGEMENT	28.61	_____	8.48	_____
LISTED COSTS PER BUDGET UNIT	(lb):		(bu):	
-Direct Costs	0.140	_____	6.44	_____
-Indirect Costs	0.056	_____	4.55	_____
-Total Costs	0.196	_____	10.99	_____

Canola notes:

*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	46.333	_____	89	_____
Market Price	8.52	_____	3.00	_____
MARKET REVENUE	394.76	_____	267.00	_____
DIRECT COSTS				
-Seed	60.00	_____	18.00	_____
-Herbicides	34.90	_____	6.20	_____
-Fungicides	3.00	_____	0.00	_____
-Insecticides	0.00	_____	0.00	_____
-Fertilizer	24.45	_____	84.59	_____
-Crop Insurance	9.50	_____	14.50	_____
-Fuel & Lubrication	24.46	_____	28.75	_____
-Repairs	25.22	_____	25.99	_____
-Drying	0.00	_____	0.00	_____
-Miscellaneous	10.00	_____	2.00	_____
-Operating Interest	7.66	_____	7.20	_____
	=====	=====	=====	=====
SUM OF LISTED DIRECT COSTS	199.19	_____	187.23	_____
INDIRECT (FIXED) COSTS				
-Misc. Overhead	10.68	_____	11.60	_____
-Machinery Depreciation	30.47	_____	32.52	_____
-Machinery Investment	15.39	_____	16.78	_____
-Land Charge	60.00	_____	60.00	_____
	=====	=====	=====	=====
SUM OF LISTED INDIRECT COSTS	116.54	_____	120.90	_____
SUM OF ALL LISTED COSTS	315.73	_____	308.13	_____
RETURN TO LABOR & MANAGEMENT	79.03	_____	(41.13)	_____
LISTED COSTS PER BUDGET UNIT	(bu):		(bu):	
-Direct Costs	4.30	_____	2.10	_____
-Indirect Costs	2.52	_____	1.36	_____
-Total Costs	6.81	_____	3.46	_____

Yellow Mustard

Buckwheat

	Per Acre	Your Figures	Per Acre	Your Figures
Market Yield	850	_____	950	_____
Market Price	0.450	_____	0.316	_____
MARKET REVENUE	382.50	_____	300.20	_____
DIRECT COSTS				
-Seed	13.72	_____	26.00	_____
-Herbicides	12.90	_____	13.60	_____
-Fungicides	0.00	_____	0.00	_____
-Insecticides	6.00*	_____	0.00	_____
-Fertilizer	31.10	_____	20.74	_____
-Crop Insurance	25.00	_____	0.00*	_____
-Fuel & Lubrication	21.87	_____	25.58	_____
-Repairs	23.24	_____	25.51	_____
-Drying	0.00	_____	0.00	_____
-Miscellaneous	2.00	_____	2.00	_____
-Operating Interest	5.43	_____	4.54	_____
	=====	=====	=====	=====
SUM OF LISTED DIRECT COSTS	141.26	_____	117.97	_____
INDIRECT (FIXED) COSTS				
-Misc. Overhead	10.05	_____	10.62	_____
-Machinery Depreciation	27.19	_____	29.51	_____
-Machinery Investment	14.48	_____	16.01	_____
-Land Charge	60.00	_____	60.00	_____
	=====	=====	=====	=====
SUM OF LISTED INDIRECT COSTS	111.72	_____	116.14	_____
SUM OF ALL LISTED COSTS	252.98	_____	234.11	_____
RETURN TO LABOR & MANAGEMENT	129.52	_____	66.09	_____
LISTED COSTS PER BUDGET UNIT	(lb):		(lb):	
-Direct Costs	0.166	_____	0.124	_____
-Indirect Costs	0.131	_____	0.122	_____
-Total Costs	0.298	_____	0.246	_____

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	_____	63*	_____
Market Price	0.11	_____	6.02	_____
MARKET INCOME	176.00	_____	379.26	_____
DIRECT COSTS				
-Seed	15.00	_____	15.60	_____
-Herbicides	3.90	_____	26.80	_____
-Fungicides	0.00	_____	10.00	_____
-Insecticides	0.00	_____	0.00	_____
-Fertilizer	29.44	_____	117.91	_____
-Crop Insurance	0.00	_____	9.00	_____
-Fuel & Lubrication	24.29	_____	19.23	_____
-Repairs	24.18	_____	20.67	_____
-Drying	0.00	_____	0.00	_____
-Miscellaneous	2.00	_____	9.50	_____
-Operating Interest	3.95	_____	9.15	_____
	=====	=====	=====	=====
SUM OF LISTED DIRECT COSTS	102.76	_____	237.86	_____
INDIRECT (FIXED) COSTS				
-Misc. Overhead	10.45	_____	9.66	_____
-Machinery Depreciation	28.76	_____	24.50	_____
-Machinery Investment	15.16	_____	11.85	_____
-Land Charge	60.00	_____	60.00	_____
	=====	=====	=====	=====
SUM OF LISTED INDIRECT COSTS	114.37	_____	106.01	_____
SUM OF ALL LISTED COSTS	217.13	_____	343.87	_____
RETURN TO LABOR & MANAGEMENT	(41.13)	_____	35.39	_____
LISTED COSTS PER BUDGET UNIT	(lb):		(bu):	
-Direct Costs	0.064	_____	3.78	_____
-Indirect Costs	0.071	_____	1.68	_____
-Total Costs	0.136	_____	5.46	_____

Winter Wheat notes:

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

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