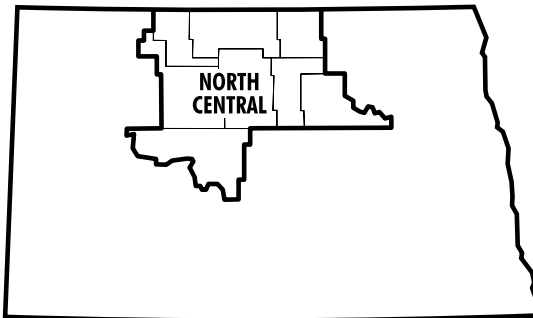




Projected 2013 Crop Budgets



North Central North Dakota

Andrew Swenson, Farm Management Specialist
Ron Haugen, Farm Management Specialist

The 2013 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 2013 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.

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 \$9.00 per acre when averaged over all crop acreage. No payments from counter-cyclical type programs are expected with the price levels used in the budgets.

Primary Assumptions:

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

The budgets for the South West, North West, South Central and North Central regions typically represent production systems where soil disturbance only occurs at seeding.

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 2005-2011, 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 - 38 lb
 Phosphorus - 8 ppm
 Potassium - 363 ppm

Fertilizer prices:
 Nitrogen - .58/lb
 Phosphorus - .52/lb
 Potassium - .48/lb

Seed Prices:

Spring Wheat	13.20/bu
Durum	12.25/bu
Barley	11.00/bu
Corn grain RR/Bt	2.90/thou.kern.
Corn grain RR	2.60/thou.kern.
Soybean RR2	.37/thou.kern.
Dry Beans	.88/lb
Oil Sunflower	1.38/thou.kern.
Conf. Sunflower	2.42/thou.kern.
Canola	9.40/lb
Flax	18.00/bu
Field Peas	14.50/bu
Oats	6.50/bu
Lentils	.35/lb
Mustard	1.70/lb
Buckwheat	.67/lb
Millet	.55/lb
Winter Wheat	11.25/bu
Rye	9.50/bu

Fuel prices:

Diesel	3.40/gal
Gas	3.20/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, soybeans, corn, canola and sunflowers.

Miscellaneous: soil testing, machinery rent and custom work.

Operating Interest: Direct costs charged 4.60% 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	37		36	
Market Price	8.68		8.94*	
MARKET INCOME	321.16		321.84	
DIRECT COSTS				
-Seed	19.80		24.50	
-Herbicides	24.30		24.30	
-Fungicides**	5.50		5.50	
-Insecticides***	0.00		0.00	
-Fertilizer	61.09		58.84	
-Crop Insurance	16.70		15.70	
-Fuel & Lubrication	17.68		17.60	
-Repairs	17.05		17.03	
-Drying	0.00		0.00	
-Miscellaneous	1.50		1.50	
-Operating Interest	3.76		3.79	
SUM OF LISTED DIRECT COSTS	167.38		168.76	
INDIRECT (FIXED) COSTS				
-Misc. Overhead	6.86		6.84	
-Machinery Depreciation	19.84		19.79	
-Machinery Investment	11.68		11.66	
-Land Charge	50.20		50.20	
SUM OF LISTED INDIRECT COSTS	88.58		88.49	
SUM OF ALL LISTED COSTS	255.96		257.25	
RETURN TO LABOR & MANAGEMENT	65.20		64.59	
LISTED COSTS PER BUDGET UNIT	(bu):		(bu):	
-Direct Costs	4.52		4.69	
-Indirect Costs	2.39		2.46	
-Total Costs	6.92		7.15	

Wheat notes:

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

**Includes seed treatment (\$1.50-\$2.00) and early season foliar fungicide (\$2-\$4.50). Although late season fungicides are often not warranted in this region, prothioconazole or metconazole containing products are highly recommended for fusarium head blight (scab) control 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	58		90	
Market Price	6.48*		5.57	
MARKET INCOME	375.84		501.30	
DIRECT COSTS				
-Seed	16.50		66.74*	
-Herbicides	22.00		17.50	
-Fungicides	5.50**		0.00	
-Insecticides	0.00		0.00	
-Fertilizer	58.65		80.56	
-Crop Insurance	16.10		31.30	
-Fuel & Lubrication	21.19		25.82	
-Repairs	18.96		20.97	
-Drying	0.00		18.00	
-Miscellaneous	1.50		1.50	
-Operating Interest	3.69		6.04	
SUM OF LISTED DIRECT COSTS	164.09		268.43	
INDIRECT (FIXED) COSTS				
-Misc. Overhead	7.70		8.91	
-Machinery Depreciation	22.96		30.29	
-Machinery Investment	13.81		16.99	
-Land Charge	50.20		50.20	
SUM OF LISTED INDIRECT COSTS	94.67		106.40	
SUM OF ALL LISTED COSTS	258.76		374.83	
RETURN TO LABOR & MANAGEMENT	117.08		126.47	
LISTED COSTS PER BUDGET UNIT	(bu):		(bu):	
-Direct Costs	2.83		2.98	
-Indirect Costs	1.63		1.18	
-Total Costs	4.46		4.16	

Barley notes:

*On average, about 35% of production is feed quality. Use \$4.81 estimate for feed barley price.

**Includes seed treatment (\$1.50-\$2.00) and early season foliar fungicide (\$2-\$4.50).

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	28	_____	1360	_____
Market Price	12.35	_____	0.32	_____
MARKET INCOME	345.80	_____	435.20	_____
DIRECT COSTS				
-Seed	64.75*	_____	44.00	_____
-Herbicides	17.50	_____	44.00**	_____
-Fungicides	0.00	_____	0.00***	_____
-Insecticides	0.00**	_____	0.00	_____
-Fertilizer	8.14	_____	39.94	_____
-Crop Insurance	16.20	_____	19.80	_____
-Fuel & Lubrication	14.61	_____	20.77	_____
-Repairs	15.23	_____	20.06	_____
-Drying	0.00	_____	0.00	_____
-Miscellaneous	7.25	_____	12.25	_____
-Operating Interest	3.30	_____	4.62	_____
SUM OF LISTED DIRECT COSTS	146.97	=====	205.44	=====
INDIRECT (FIXED) COSTS				
-Misc. Overhead	6.36	_____	7.49	_____
-Machinery Depreciation	18.44	_____	25.20	_____
-Machinery Investment	10.29	_____	14.23	_____
-Land Charge	50.20	_____	50.20	_____
SUM OF LISTED INDIRECT COSTS	85.29	=====	97.11	=====
SUM OF ALL LISTED COSTS	232.26	_____	302.55	_____
RETURN TO LABOR & MANAGEMENT	113.54	_____	132.65	_____
LISTED COSTS PER BUDGET UNIT	(bu):		(lb):	
-Direct Costs	5.25	_____	0.15	_____
-Indirect Costs	3.05	_____	0.07	_____
-Total Costs	8.30	_____	0.22	_____

Soybean notes:

*RR2 (glyphosate) resistant soybeans.

**Soybean aphid and/or spider mite insecticide would cost about \$7 per acre plus application.

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 2013 are unknown as of 12/15/2012.

**Includes desiccant prior to straight cutting.

***Fungicide for white mold would cost about \$18 plus application. 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	1490		1390	
Market Price	0.239		0.314	
MARKET INCOME	356.11		436.46	
DIRECT COSTS				
-Seed	28.98*		43.56*	
-Herbicides	31.40		33.50	
-Fungicides	0.00**		0.00**	
-Insecticides	7.00***		14.00***	
-Fertilizer	45.51		40.98	
-Crop Insurance	15.80		21.30	
-Fuel & Lubrication	19.81		19.56	
-Repairs	17.70		17.62	
-Drying	2.98		2.78	
-Miscellaneous	9.00		16.50	
-Operating Interest	4.10		4.83	
SUM OF LISTED DIRECT COSTS	182.28		214.63	
INDIRECT (FIXED) COSTS				
-Misc. Overhead	7.43		7.38	
-Machinery Depreciation	22.30		22.15	
-Machinery Investment	13.29		13.21	
-Land Charge	50.20		50.20	
SUM OF LISTED INDIRECT COSTS	93.22		92.94	
SUM OF ALL LISTED COSTS	275.50		307.57	
RETURN TO LABOR & MANAGEMENT	80.61		128.89	
LISTED COSTS PER BUDGET UNIT	(lb):		(lb):	
-Direct Costs	0.12		0.15	
-Indirect Costs	0.06		0.07	
-Total Costs	0.18		0.22	

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 \$7.50 is under "Miscellaneous." Insecticide treatment for cutworms would cost about \$5 plus application (usually tank mixed with herbicide).

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 \$7.50 is under "Miscellaneous." Insecticide treatment for cutworms would cost about \$5 plus application (usually tank mixed with herbicide).

Canola

Flax

	Per Acre	Your Figures	Per Acre	Your Figures
Market Yield	1480	_____	20	_____
Market Price	0.245	_____	13.09	_____
MARKET INCOME	362.60	_____	261.80	_____
DIRECT COSTS				
-Seed	47.00*	_____	12.60	_____
-Herbicides	19.00	_____	27.50	_____
-Fungicides	0.00**	_____	0.00	_____
-Insecticides	0.00	_____	0.00	_____
-Fertilizer	78.90	_____	31.12	_____
-Crop Insurance	14.70	_____	10.00	_____
-Fuel & Lubrication	18.13	_____	16.52	_____
-Repairs	17.44	_____	16.84	_____
-Drying	0.00	_____	0.00	_____
-Miscellaneous	1.50	_____	1.50	_____
-Operating Interest	4.52	_____	2.67	_____
SUM OF LISTED DIRECT COSTS	201.20	=====	118.76	=====
INDIRECT (FIXED) COSTS				
-Misc. Overhead	6.91	_____	6.61	_____
-Machinery Depreciation	20.64	_____	19.23	_____
-Machinery Investment	12.16	_____	11.40	_____
-Land Charge	50.20	_____	50.20	_____
SUM OF LISTED INDIRECT COSTS	89.92	=====	87.43	=====
SUM OF ALL LISTED COSTS	291.12	_____	206.19	_____
RETURN TO LABOR & MANAGEMENT	71.48	_____	55.61	_____
LISTED COSTS PER BUDGET UNIT	(lb):		(bu):	
-Direct Costs	0.14	_____	5.94	_____
-Indirect Costs	0.06	_____	4.37	_____
-Total Costs	0.20	_____	10.31	_____

Canola notes:

*Cost includes insecticide seed treatment for flea beetles.

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

Field Peas

Oats

	Per Acre	Your Figures	Per Acre	Your Figures
Market Yield	35		60	
Market Price	8.52*		3.39	
MARKET INCOME	298.20		203.40	
DIRECT COSTS				
-Seed	43.50**		13.00	
-Herbicides	30.50		8.50	
-Fungicides	1.50		0.00	
-Insecticides	0.00***		0.00	
-Fertilizer	11.78		49.59	
-Crop Insurance	9.80		11.50	
-Fuel & Lubrication	17.15		21.35	
-Repairs	17.44		19.01	
-Drying	0.00		0.00	
-Miscellaneous	9.25		1.50	
-Operating Interest	3.24		2.86	
SUM OF LISTED DIRECT COSTS	144.16		127.31	
INDIRECT (FIXED) COSTS				
-Misc. Overhead	6.84		7.73	
-Machinery Depreciation	21.30		23.05	
-Machinery Investment	11.66		13.86	
-Land Charge	50.20		50.20	
SUM OF LISTED INDIRECT COSTS	90.00		94.84	
SUM OF ALL LISTED COSTS	234.16		222.15	
RETURN TO LABOR & MANAGEMENT	64.04		(18.75)	
LISTED COSTS PER BUDGET UNIT	(bu):		(bu):	
-Direct Costs	4.12		2.12	
-Indirect Costs	2.57		1.58	
-Total Costs	6.69		3.70	

Field Pea Notes:

*Yellow pea food quality price. Use \$10 for green pea food quality and about \$6.50 for feed quality peas.

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

**Insecticide treatment for cutworms and/or pea aphids would cost about \$5 per acre plus application.

Lentils

Yellow Mustard

	Per Acre	Your Figures	Per Acre	Your Figures
Market Yield	1370	_____	950	_____
Market Price	0.20	_____	0.395	_____
MARKET INCOME	274.00	_____	375.25	_____
DIRECT COSTS				
-Seed	24.50	_____	20.40	_____
-Herbicides	35.00*	_____	18.50	_____
-Fungicides	0.00**	_____	0.00	_____
-Insecticides	0.00***	_____	6.00*	_____
-Fertilizer	7.69	_____	36.34	_____
-Crop Insurance	12.10	_____	20.00**	_____
-Fuel & Lubrication	16.83	_____	18.06	_____
-Repairs	18.17	_____	17.90	_____
-Drying	0.00	_____	0.00	_____
-Miscellaneous	9.25	_____	1.50	_____
-Operating Interest	2.84	_____	3.19	_____
SUM OF LISTED DIRECT COSTS	126.38	=====	141.88	=====
INDIRECT (FIXED) COSTS				
-Misc. Overhead	6.95	_____	7.00	_____
-Machinery Depreciation	21.63	_____	21.04	_____
-Machinery Investment	12.01	_____	12.79	_____
-Land Charge	50.20	_____	50.20	_____
SUM OF LISTED INDIRECT COSTS	90.79	=====	91.02	=====
SUM OF ALL LISTED COSTS	217.16	_____	232.90	_____
RETURN TO LABOR & MANAGEMENT	56.84	_____	142.35	_____
LISTED COSTS PER BUDGET UNIT	(lb):		(lb):	
-Direct Costs	0.09	_____	0.15	_____
-Indirect Costs	0.07	_____	0.10	_____
-Total Costs	0.16	_____	0.25	_____

Lentil notes:

*Includes pre-harvest dessicant.

**Fungicide treatment for ascochyta/anthracnose would cost about \$16 plus application.

***Insecticide treatment for cutworms would cost about \$5 per acre plus application.

Yellow Mustard notes:

*Insecticide seed treatment for flea beetles.

**Crop Insurance is not available in some counties of the region.

Buckwheat

Millet

	Per Acre	Your Figures	Per Acre	Your Figures
Market Yield	950	_____	1300	_____
Market Price	0.283	_____	0.185	_____
MARKET INCOME	268.85	_____	240.50	_____
DIRECT COSTS				
-Seed	33.50	_____	13.75	_____
-Herbicides	16.50	_____	8.50	_____
-Fungicides	0.00	_____	0.00	_____
-Insecticides	0.00	_____	0.00	_____
-Fertilizer	19.57	_____	19.56	_____
-Crop Insurance	15.00*	_____	0.00	_____
-Fuel & Lubrication	17.59	_____	18.75	_____
-Repairs	17.27	_____	18.13	_____
-Drying	0.00	_____	0.00	_____
-Miscellaneous	1.50	_____	1.50	_____
-Operating Interest	2.78	_____	1.84	_____
SUM OF LISTED DIRECT COSTS	123.72	=====	82.03	=====
INDIRECT (FIXED) COSTS				
-Misc. Overhead	6.84	_____	7.15	_____
-Machinery Depreciation	20.52	_____	21.46	_____
-Machinery Investment	12.13	_____	13.01	_____
-Land Charge	50.20	_____	50.20	_____
SUM OF LISTED INDIRECT COSTS	89.69	=====	91.82	=====
SUM OF ALL LISTED COSTS	213.41	_____	173.86	_____
RETURN TO LABOR & MANAGEMENT	55.44	_____	66.64	_____
LISTED COSTS PER BUDGET UNIT	(lb):		(lb):	
-Direct Costs	0.13	_____	0.06	_____
-Indirect Costs	0.09	_____	0.07	_____
-Total Costs	0.22	_____	0.13	_____

Buckwheat notes:

*Crop insurance is not available in most counties of the region.

Winter Wheat

Rye

	Per Acre	Your Figures	Per Acre	Your Figures
Market Yield	48*	_____	42	_____
Market Price	7.87	_____	6.92	_____
MARKET INCOME	377.76	_____	290.64	_____
DIRECT COSTS				
-Seed	11.25	_____	11.40	_____
-Herbicides	22.00	_____	5.50	_____
-Fungicides	9.00	_____	0.00	_____
-Insecticides	0.00	_____	0.00	_____
-Fertilizer	85.80	_____	72.32	_____
-Crop Insurance	19.90	_____	9.50	_____
-Fuel & Lubrication	17.68	_____	17.30	_____
-Repairs	16.18	_____	15.77	_____
-Drying	0.00	_____	0.00	_____
-Miscellaneous	7.00	_____	7.00	_____
-Operating Interest	4.34	_____	3.19	_____
SUM OF LISTED DIRECT COSTS	193.15	=====	141.99	=====
INDIRECT (FIXED) COSTS				
-Misc. Overhead	6.64	_____	6.57	_____
-Machinery Depreciation	19.03	_____	18.79	_____
-Machinery Investment	10.58	_____	10.56	_____
-Land Charge	50.20	_____	50.20	_____
SUM OF LISTED INDIRECT COSTS	86.45	=====	86.12	=====
SUM OF ALL LISTED COSTS	279.60	_____	228.11	_____
RETURN TO LABOR & MANAGEMENT	98.16	_____	62.53	_____
LISTED COSTS PER BUDGET UNIT	(bu):		(bu):	
-Direct Costs	4.02	_____	3.38	_____
-Indirect Costs	1.80	_____	2.05	_____
-Total Costs	5.82	_____	5.43	_____

Winter Wheat notes:

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

2013 Machinery List

Machine	Purch. Price	Annual Use	Years to trade	Trade in	Deprec.	Invest.	Repairs	Ac/hr
FWA 120HP Tractor	122500	400hr	20	37244	10.66 /hr	8.99 /hr	11.76 /hr	
FWA 180HP Tractor	166000	500hr	15	46377	15.95 /hr	9.56 /hr	15.96 /hr	
4WD 330HP Tractor	218800	500hr	15	61022	21.04 /hr	12.59 /hr	12.00 /hr	
SP Combine (base unit)	268400	250hr	12	62943	68.49 /hr	29.82 /hr	41.08 /hr	
Tandem Truck (used)	36600	150hr	15	11700	11.07 /hr	7.25 /hr	7.33 /hr	
Semi & Trailer (used)	41000	150hr	10	11800	19.47 /hr	7.92 /hr	8.93 /hr	
Pick-up Truck	28900	300hr	10	5700	7.47 /hr	2.60 /hr	3.30 /hr	
Swather 25 ft	23100	1000ac	20	5460	0.88 /ac	0.64 /ac	0.40 /ac	12.1
Sprayer 90 ft	36600	5000ac	10	18179	0.37 /ac	0.25 /ac	0.47 /ac	42.5
Heavy Harrow 70 ft	29200	2000ac	20	17060	0.30 /ac	0.52 /ac	0.33 /ac	39.7
Air Seeder 40 ft	170400	2400ac	12	80295	3.12 /ac	2.35 /ac	5.89 /ac	17.0
Planter 16-30	106300	1400ac	15	44178	2.96 /ac	2.42 /ac	4.41 /ac	14.2
Corn head	55300	800ac	12	15834	4.10 /ac	2.00 /ac	1.28 /ac	6.8
Grain head w/pu	14700	800ac	15	3064	0.97 /ac	0.50 /ac	0.28 /ac	8.5
Grain str. cut 30 ft	24500	2000ac	8	9890	0.91 /ac	0.39 /ac	0.38 /ac	10.2
Head w/sunf pans 30 ft	29500	600ac	20	3018	2.20 /ac	1.22 /ac	0.46 /ac	10.2
Soybeans str. cut 30 ft	36300	1000ac	20	3330	1.65 /ac	0.89 /ac	0.56 /ac	10.2
Rock picker	21000	50hr	20	6712	0.48 /ac	0.42 /ac	0.31 /ac	29.1
Grain Cart	28700	100hr	20	4900	11.90 /hr	7.56 /hr	7.20 /hr	
Grain auger	12000	50hr	20	700	11.30 /hr	5.72 /hr	4.50 /hr	

Example Sequence of Operations

Field operations sequence for spring wheat and durum.

OP. NO.	DESCRIPTION	(FEET) WIDTH	(MPH) SPEED	(AC/HR) Fld Cap	(\$/AC) FUEL & LUBE	(\$/AC) EST. REPAIRS
1	NH3 Application	48	5.0	24.7	\$ 2.30	\$ 1.31
2	Pick Rocks				0.71	0.72
3	Spray (burn-down)	90	6.0	42.5	0.48	0.74
4	Plant	40	5.0	17.0	3.35	6.61
5	Spray (120%)	90	6.0	42.5	0.58	0.89
6	Combine	30	4.0	10.2	4.56	4.41
7	Heavy Harrow	70	5.5	39.7	0.78	0.73
	Grain Cart*				0.97	0.25
	Trucks*				1.86	0.71
	Grain auger (pto)				0.23	0.09
	Pickup truck allocation				1.86	0.71
	Total				17.68	17.05

* Truck costs will vary between crops.

The NDSU Extension Service does not endorse commercial products or companies even though reference may be made to tradenames, trademarks or service names. NDSU encourages you to use and share this content, but please do so under the conditions of our Creative Commons license. You may copy, distribute, transmit and adapt this work as long as you give full attribution, don't use the work for commercial purposes and share your resulting work similarly. For more information, visit www.ag.ndsu.edu/agcomm/creative-commons.

For more information on this and other topics, see www.ag.ndsu.edu

County commissions, North Dakota State University and U.S. Department of Agriculture cooperating. North Dakota State University does not discriminate on the basis of age, color, disability, gender expression/identity, genetic information, marital status, national origin, public assistance status, race, religion, sex, sexual orientation, or status as a U.S. veteran. Direct inquiries to the Vice President for Equity, Diversity and Global Outreach, 205 Old Main, (701) 231-7708. This publication will be made available in alternative formats for people with disabilities upon request, (701) 231-7881. 700-12-12