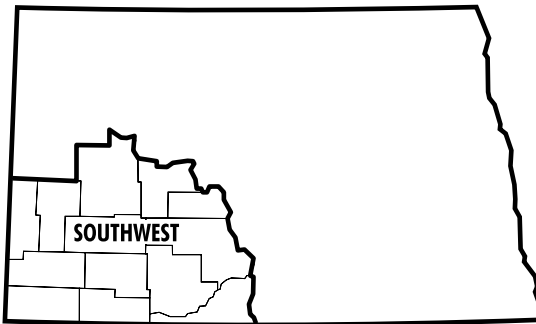




Projected 2013 Crop Budgets



South West North Dakota

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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 \$6.25 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 - 37 lb
 Phosphorus - 10 ppm
 Potassium - 356 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.
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
Safflower	.55/lb
Buckwheat	.67/lb
Millet	.55/lb
Small Chickpeas	.60/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	28	_____	30	_____
Market Price	8.64	_____	8.94*	_____
MARKET INCOME	241.92	_____	268.20	_____
DIRECT COSTS				
-Seed	16.50	_____	18.38	_____
-Herbicides	23.50	_____	23.50	_____
-Fungicides**	5.50	_____	5.50	_____
-Insecticides***	0.00	_____	0.00	_____
-Fertilizer	38.91	_____	43.22	_____
-Crop Insurance	15.70	_____	16.60	_____
-Fuel & Lubrication	13.08	_____	13.18	_____
-Repairs	14.44	_____	14.48	_____
-Drying	0.00	_____	0.00	_____
-Miscellaneous	7.00	_____	7.00	_____
-Operating Interest	3.10	_____	3.26	_____
SUM OF LISTED DIRECT COSTS	137.73	=====	145.13	=====
INDIRECT (FIXED) COSTS				
-Misc. Overhead	6.07	_____	6.10	_____
-Machinery Depreciation	16.98	_____	17.06	_____
-Machinery Investment	9.34	_____	9.37	_____
-Land Charge	37.70	_____	37.70	_____
SUM OF LISTED INDIRECT COSTS	70.09	=====	70.23	=====
SUM OF ALL LISTED COSTS	207.83	_____	215.36	_____
RETURN TO LABOR & MANAGEMENT	34.09	_____	52.84	_____
LISTED COSTS PER BUDGET UNIT	(bu):		(bu):	
-Direct Costs	4.92	_____	4.84	_____
-Indirect Costs	2.50	_____	2.34	_____
-Total Costs	7.42	_____	7.18	_____

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.

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

Malting Barley

Corn Grain

	Per Acre	Your Figures	Per Acre	Your Figures
Market Yield	46		75	
Market Price	6.77*		5.86	
MARKET INCOME	311.42		439.50	
DIRECT COSTS				
-Seed	13.75		56.80*	
-Herbicides	22.00		17.50	
-Fungicides	5.50**		0.00	
-Insecticides	0.00		0.00	
-Fertilizer	39.43		59.58	
-Crop Insurance	14.80		40.00**	
-Fuel & Lubrication	15.99		16.04	
-Repairs	16.30		16.18	
-Drying	0.00		15.00	
-Miscellaneous	7.00		7.00	
-Operating Interest	3.10		5.25	
	=====	=====	=====	=====
SUM OF LISTED DIRECT COSTS	137.87		233.35	
INDIRECT (FIXED) COSTS				
-Misc. Overhead	6.85		7.60	
-Machinery Depreciation	19.89		24.08	
-Machinery Investment	11.35		13.08	
-Land Charge	37.70		37.70	
	=====	=====	=====	=====
SUM OF LISTED INDIRECT COSTS	75.78		82.46	
SUM OF ALL LISTED COSTS	213.65		315.81	
RETURN TO LABOR & MANAGEMENT	97.77		123.69	
LISTED COSTS PER BUDGET UNIT	(bu):		(bu):	
-Direct Costs	3.00		3.11	
-Indirect Costs	1.65		1.10	
-Total Costs	4.64		4.21	

Barley notes:

*Use \$5.02 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.

**Crop insurance only available by written agreement in some counties of region.

Oil Sunflower

Confectionery Sunflower

	Per Acre	Your Figures	Per Acre	Your Figures
Market Yield	1320		1200	
Market Price	0.237		0.311	
MARKET INCOME	312.84		373.20	
DIRECT COSTS				
-Seed	32.43*		50.82*	
-Herbicides	31.40		33.50	
-Fungicides	0.00**		0.00**	
-Insecticides	7.00***		14.00***	
-Fertilizer	35.89		30.68	
-Crop Insurance	19.40		24.10	
-Fuel & Lubrication	14.21		14.02	
-Repairs	15.51		15.44	
-Drying	2.64		2.40	
-Miscellaneous	14.50		22.00	
-Operating Interest	3.98		4.76	
	=====		=====	
SUM OF LISTED DIRECT COSTS	176.96		211.72	
INDIRECT (FIXED) COSTS				
-Misc. Overhead	6.65		6.60	
-Machinery Depreciation	19.38		19.24	
-Machinery Investment	10.86		10.79	
-Land Charge	37.70		37.70	
	=====		=====	
SUM OF LISTED INDIRECT COSTS	74.59		74.33	
SUM OF ALL LISTED COSTS	251.55		286.05	
RETURN TO LABOR & MANAGEMENT	61.29		87.15	
LISTED COSTS PER BUDGET UNIT	(lb):		(lb):	
-Direct Costs	0.13		0.18	
-Indirect Costs	0.06		0.06	
-Total Costs	0.19		0.24	

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	1250	_____	18	_____
Market Price	0.24	_____	13.03	_____
MARKET INCOME	300.00	_____	234.54	_____
DIRECT COSTS				
-Seed	47.00*	_____	10.80	_____
-Herbicides	19.00	_____	24.50	_____
-Fungicides	0.00**	_____	0.00	_____
-Insecticides	0.00	_____	0.00	_____
-Fertilizer	61.63	_____	24.61	_____
-Crop Insurance	14.10	_____	11.30	_____
-Fuel & Lubrication	12.84	_____	15.37	_____
-Repairs	14.35	_____	16.49	_____
-Drying	0.00	_____	0.00	_____
-Miscellaneous	7.00	_____	1.50	_____
-Operating Interest	4.05	_____	2.41	_____
SUM OF LISTED DIRECT COSTS	179.97	=====	106.98	=====
INDIRECT (FIXED) COSTS				
-Misc. Overhead	6.00	_____	6.66	_____
-Machinery Depreciation	16.83	_____	19.60	_____
-Machinery Investment	9.25	_____	11.62	_____
-Land Charge	37.70	_____	37.70	_____
SUM OF LISTED INDIRECT COSTS	69.78	=====	75.57	=====
SUM OF ALL LISTED COSTS	249.76	_____	182.55	_____
RETURN TO LABOR & MANAGEMENT	50.24	_____	51.99	_____
LISTED COSTS PER BUDGET UNIT	(lb):		(bu):	
-Direct Costs	0.14	_____	5.94	_____
-Indirect Costs	0.06	_____	4.20	_____
-Total Costs	0.20	_____	10.14	_____

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	30		51	
Market Price	8.52*		3.36	
MARKET INCOME	255.60		171.36	
DIRECT COSTS				
-Seed	43.50**		13.00	
-Herbicides	30.50		8.50	
-Fungicides	1.50		0.00	
-Insecticides	0.00***		0.00	
-Fertilizer	7.42		36.60	
-Crop Insurance	11.90		12.40	
-Fuel & Lubrication	15.19		16.24	
-Repairs	16.70		16.39	
-Drying	0.00		0.00	
-Miscellaneous	6.00		7.00	
-Operating Interest	3.05		2.53	
SUM OF LISTED DIRECT COSTS	135.76		112.67	
INDIRECT (FIXED) COSTS				
-Misc. Overhead	6.61		6.92	
-Machinery Depreciation	20.32		20.06	
-Machinery Investment	11.08		11.44	
-Land Charge	37.70		37.70	
SUM OF LISTED INDIRECT COSTS	75.71		76.12	
SUM OF ALL LISTED COSTS	211.47		188.79	
RETURN TO LABOR & MANAGEMENT	44.13		(17.43)	
LISTED COSTS PER BUDGET UNIT	(bu):		(bu):	
-Direct Costs	4.53		2.21	
-Indirect Costs	2.52		1.49	
-Total Costs	7.05		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	1270	_____	850	_____
Market Price	0.20	_____	0.394	_____
MARKET INCOME	254.00	_____	334.90	_____
DIRECT COSTS				
-Seed	24.50	_____	17.00	_____
-Herbicides	35.00*	_____	18.50	_____
-Fungicides	0.00**	_____	0.00	_____
-Insecticides	0.00***	_____	0.00	_____
-Fertilizer	5.24	_____	28.24	_____
-Crop Insurance	15.80	_____	20.50*	_____
-Fuel & Lubrication	16.02	_____	15.23	_____
-Repairs	17.68	_____	16.44	_____
-Drying	0.00	_____	0.00	_____
-Miscellaneous	9.25	_____	7.00	_____
-Operating Interest	2.84	_____	2.83	_____
SUM OF LISTED DIRECT COSTS	126.33	_____	125.74	_____
INDIRECT (FIXED) COSTS				
-Misc. Overhead	6.69	_____	6.62	_____
-Machinery Depreciation	21.03	_____	19.50	_____
-Machinery Investment	11.62	_____	11.57	_____
-Land Charge	37.70	_____	37.70	_____
SUM OF LISTED INDIRECT COSTS	77.05	_____	75.38	_____
SUM OF ALL LISTED COSTS	203.38	_____	201.12	_____
RETURN TO LABOR & MANAGEMENT	50.62	_____	133.78	_____
LISTED COSTS PER BUDGET UNIT	(lb):		(lb):	
-Direct Costs	0.10	_____	0.15	_____
-Indirect Costs	0.06	_____	0.09	_____
-Total Costs	0.16	_____	0.24	_____

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:

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

Safflower

Buckwheat

	Per Acre	Your Figures	Per Acre	Your Figures
Market Yield	1050	_____	850	_____
Market Price	0.29	_____	0.289	_____
MARKET INCOME	304.50	_____	245.65	_____
DIRECT COSTS				
-Seed	11.00	_____	33.50	_____
-Herbicides	20.00	_____	16.50	_____
-Fungicides	18.00*	_____	0.00	_____
-Insecticides	0.00	_____	0.00	_____
-Fertilizer	25.22	_____	13.78	_____
-Crop Insurance	13.20	_____	16.70*	_____
-Fuel & Lubrication	13.55	_____	14.63	_____
-Repairs	15.18	_____	15.78	_____
-Drying	0.00	_____	0.00	_____
-Miscellaneous	7.00	_____	1.50	_____
-Operating Interest	2.83	_____	2.59	_____
SUM OF LISTED DIRECT COSTS	125.99	=====	114.98	=====
INDIRECT (FIXED) COSTS				
-Misc. Overhead	6.20	_____	6.44	_____
-Machinery Depreciation	17.59	_____	18.92	_____
-Machinery Investment	9.79	_____	10.87	_____
-Land Charge	37.70	_____	37.70	_____
SUM OF LISTED INDIRECT COSTS	71.28	=====	73.94	=====
SUM OF ALL LISTED COSTS	197.27	_____	188.92	_____
RETURN TO LABOR & MANAGEMENT	107.23	_____	56.73	_____
LISTED COSTS PER BUDGET UNIT	(lb):		(lb):	
-Direct Costs	0.12	_____	0.14	_____
-Indirect Costs	0.07	_____	0.09	_____
-Total Costs	0.19	_____	0.22	_____

Safflower notes:

*Fungicide for alternaria leaf spot.

Buckwheat notes:

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

Millet Small Chickpea*

	Per Acre	Your Figures	Per Acre	Your Figures
Market Yield	1400		1400	
Market Price	0.185		0.32	
MARKET INCOME	259.00		448.00	
DIRECT COSTS				
-Seed	13.75		72.00	
-Herbicides	8.50		35.00	
-Fungicides	0.00		36.00**	
-Insecticides	0.00		0.00	
-Fertilizer	21.26		8.61	
-Crop Insurance	0.00		17.90	
-Fuel & Lubrication	15.09		18.46	
-Repairs	15.95		20.71	
-Drying	0.00		0.00	
-Miscellaneous	7.00		8.25	
-Operating Interest	1.88		4.99	
	=====	=====	=====	=====
SUM OF LISTED DIRECT COSTS	83.43		221.93	
INDIRECT (FIXED) COSTS				
-Misc. Overhead	6.58		7.32	
-Machinery Depreciation	19.25		25.05	
-Machinery Investment	11.03		13.65	
-Land Charge	37.70		37.70	
	=====	=====	=====	=====
SUM OF LISTED INDIRECT COSTS	74.56		83.72	
SUM OF ALL LISTED COSTS	157.99		305.64	
RETURN TO LABOR & MANAGEMENT	101.01		142.36	
LISTED COSTS PER BUDGET UNIT	(lb):		(lb):	
-Direct Costs	0.06		0.16	
-Indirect Costs	0.05		0.06	
-Total Costs	0.11		0.22	

Small Chickpea notes:

*A kabula variety with medium size seed, about 7-8mm, which has better ascochyta resistance than large kabula's.

**Two fungicide treatments for ascochyta blight. Additional treatments may be necessary.

Winter Wheat

Rye

	Per Acre	Your Figures	Per Acre	Your Figures
Market Yield	39*	_____	36	_____
Market Price	7.86	_____	6.76	_____
MARKET INCOME	306.54	_____	243.36	_____
DIRECT COSTS				
-Seed	11.25	_____	11.40	_____
-Herbicides	20.80	_____	5.50	_____
-Fungicides	9.00	_____	0.00	_____
-Insecticides	0.00	_____	0.00	_____
-Fertilizer	62.63	_____	56.16	_____
-Crop Insurance	16.80	_____	9.00	_____
-Fuel & Lubrication	13.41	_____	13.00	_____
-Repairs	14.68	_____	13.85	_____
-Drying	0.00	_____	0.00	_____
-Miscellaneous	7.00	_____	7.00	_____
-Operating Interest	3.58	_____	2.67	_____
SUM OF LISTED DIRECT COSTS	159.15	=====	118.57	=====
INDIRECT (FIXED) COSTS				
-Misc. Overhead	6.16	_____	6.05	_____
-Machinery Depreciation	17.15	_____	16.65	_____
-Machinery Investment	9.27	_____	9.02	_____
-Land Charge	37.70	_____	37.70	_____
SUM OF LISTED INDIRECT COSTS	70.27	=====	69.43	=====
SUM OF ALL LISTED COSTS	229.42	_____	188.00	_____
RETURN TO LABOR & MANAGEMENT	77.12	_____	55.36	_____
LISTED COSTS PER BUDGET UNIT	(bu):		(bu):	
-Direct Costs	4.08	_____	3.29	_____
-Indirect Costs	1.80	_____	1.93	_____
-Total Costs	5.88	_____	5.22	_____

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 12-30	63800	800ac	20	21228	2.66 /ac	2.39 /ac	3.52 /ac	10.6
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
Rock picker	21000	50hr	20	6712	0.48 /ac	0.42 /ac	0.31 /ac	29.1
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	Pick Rocks				0.71	0.72
2	Spray (burn-down)	90	6.0	42.5	0.48	0.74
3	Plant	40	5.0	17.0	3.35	6.61
4	Spray	90	6.0	42.5	0.48	0.74
5	Combine	30	4.0	10.2	4.56	4.41
	Trucks*				1.41	0.53
	Grain auger (pto)				0.23	0.09
	Pickup truck allocation				1.86	0.59
Total					13.08	14.44

* Truck costs will vary between crops.

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