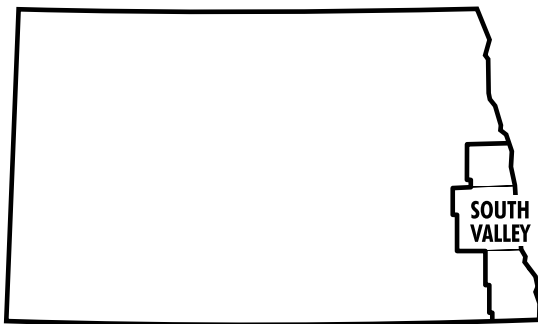




FARM MANAGEMENT PLANNING GUIDE

December 2014

Projected 2015 Crop Budgets



South Valley North Dakota

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The 2015 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 2015 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 2014 Farm Bill initiated the Price Loss Coverage (PLC) and Agricultural Risk Coverage (ARC) support programs, and eliminated the direct and counter-cyclical payment programs and the ACRE program.

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 2007-2013, 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 - 32 lb
 Phosphorus - 10 ppm
 Potassium - 278 ppm

Fertilizer prices:
 Nitrogen - .46/lb
 Phosphorus - .45/lb
 Potassium - .38/lb

Seed Prices:

Spring Wheat	11.00/bu
Barley	9.00/bu
Corn GM traits	3.15/thou.kern
Soybean RR2	.35/thou.kern.
Dry Beans	.88/lb
Oil Sunflower	1.50/thou.kern.
Conf. Sunflower	2.50/thou.kern.
Oats	6.00/bu
Winter Wheat	10.50/bu

Fuel prices:

Diesel	2.65/gal
Gas	2.60/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

Malting Barley

	Per Acre	Your Figures	Per Acre	Your Figures
Market Yield	54	_____	71	_____
Market Price	6.13	_____	4.69*	_____
MARKET INCOME	331.02	_____	332.99	_____
DIRECT COSTS				
-Seed	22.00	_____	18.00	_____
-Herbicides	22.00	_____	19.20	_____
-Fungicides	5.50*	_____	5.50	_____
-Insecticides	0.00**	_____	0.00**	_____
-Fertilizer	78.68	_____	60.80	_____
-Crop Insurance	11.00	_____	16.30	_____
-Fuel & Lubrication	18.36	_____	20.32	_____
-Repairs	19.43	_____	20.45	_____
-Drying	0.00	_____	0.00	_____
-Miscellaneous	7.50	_____	7.50	_____
-Operating Interest	3.92	_____	3.57	_____
SUM OF LISTED DIRECT COSTS	188.39	=====	171.65	=====
INDIRECT (FIXED) COSTS				
-Misc. Overhead	7.63	_____	8.19	_____
-Machinery Depreciation	22.63	_____	24.00	_____
-Machinery Investment	13.14	_____	14.45	_____
-Land Charge	124.00	_____	124.00	_____
SUM OF LISTED INDIRECT COSTS	167.41	=====	170.64	=====
SUM OF ALL LISTED COSTS	355.80	_____	342.29	_____
RETURN TO LABOR & MANAGEMENT	(24.78)	_____	(9.30)	_____
LISTED COSTS PER BUDGET UNIT	(bu)		(bu)	
-Direct Costs	3.49	_____	2.42	_____
-Indirect Costs	3.10	_____	2.40	_____
-Total Costs	6.59	_____	4.82	_____

Wheat notes:

*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 (about \$12) are highly recommended when a more susceptible cultivar is grown and/or when conditions are favorable for infection.

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

Barley notes:

*Use \$2.89 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 Grain

Soybeans

	Per Acre	Your Figures	Per Acre	Your Figures
Market Yield	132		34	
Market Price	3.50		9.12	
MARKET INCOME	462.00		310.08	
DIRECT COSTS				
-Seed	103.95*		69.25*	
-Herbicides	22.00		23.00	
-Fungicides	0.00		0.00	
-Insecticides	0.00		7.00**	
-Fertilizer	100.08		2.98	
-Crop Insurance	26.30		11.20	
-Fuel & Lubrication	25.13		15.54	
-Repairs	26.09		18.81	
-Drying	27.72		0.00	
-Miscellaneous	7.50		1.50	
-Operating Interest	7.20		3.17	
SUM OF LISTED DIRECT COSTS	345.97		152.46	
INDIRECT (FIXED) COSTS				
-Misc. Overhead	10.36		7.27	
-Machinery Depreciation	34.70		21.91	
-Machinery Investment	19.94		12.60	
-Land Charge	124.00		124.00	
SUM OF LISTED INDIRECT COSTS	189.00		165.77	
SUM OF ALL LISTED COSTS	534.97		318.23	
RETURN TO LABOR & MANAGEMENT	(72.97)		(8.15)	
LISTED COSTS PER BUDGET UNIT				
	(bu)		(bu)	
-Direct Costs	2.62		4.48	
-Indirect Costs	1.43		4.88	
-Total Costs	4.05		9.36	

Corn notes:

*GM corn with herbicide resistance and corn borer and corn rootworm control. Cost includes insecticide seed treatment for wireworm, rootworm, white grub and suppression of cutworm.

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

Oil Drybeans Sunflower

	Per Acre	Your Figures	Per Acre	Your Figures
Market Yield	1720	_____	1650	_____
Market Price	0.25	_____	0.182	_____
MARKET INCOME	430.00	_____	300.30	_____
DIRECT COSTS				
-Seed	44.00	_____	36.00*	_____
-Herbicides	41.60	_____	27.00	_____
-Fungicides	20.00*	_____	0.00**	_____
-Insecticides	0.00	_____	7.00***	_____
-Fertilizer	46.03	_____	42.82	_____
-Crop Insurance	20.70	_____	9.10	_____
-Fuel & Lubrication	20.21	_____	17.98	_____
-Repairs	23.60	_____	19.18	_____
-Drying	0.00	_____	4.95	_____
-Miscellaneous	15.50	_____	15.50	_____
-Operating Interest	4.92	_____	3.82	_____
	=====	=====	=====	=====
SUM OF LISTED DIRECT COSTS	236.55	_____	183.35	_____
INDIRECT (FIXED) COSTS				
-Misc. Overhead	8.90	_____	8.15	_____
-Machinery Depreciation	28.26	_____	24.79	_____
-Machinery Investment	18.22	_____	14.96	_____
-Land Charge	124.00	_____	124.00	_____
	=====	=====	=====	=====
SUM OF LISTED INDIRECT COSTS	179.39	_____	171.89	_____
SUM OF ALL LISTED COSTS	415.94	_____	355.24	_____
RETURN TO LABOR & MANAGEMENT	14.06	_____	(54.94)	_____
LISTED COSTS PER BUDGET UNIT				
	(lb)		(lb)	
-Direct Costs	0.14	_____	0.11	_____
-Indirect Costs	0.10	_____	0.10	_____
-Total Costs	0.24	_____	0.22	_____

Drybean notes:

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

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

Oats

	Per Acre	Your Figures	Per Acre	Your Figures
Market Yield	1380	_____	78	_____
Market Price	0.256	_____	2.64	_____
MARKET INCOME	353.28	_____	205.92	_____
DIRECT COSTS				
-Seed	50.00*	_____	12.00	_____
-Herbicides	29.20	_____	5.25	_____
-Fungicides	0.00**	_____	0.00	_____
-Insecticides	14.00***	_____	0.00	_____
-Fertilizer	33.40	_____	56.59	_____
-Crop Insurance	12.20	_____	10.80	_____
-Fuel & Lubrication	17.44	_____	20.76	_____
-Repairs	18.95	_____	20.64	_____
-Drying	4.14	_____	0.00	_____
-Miscellaneous	23.50	_____	7.50	_____
-Operating Interest	4.31	_____	2.84	_____
	=====	=====	=====	=====
SUM OF LISTED DIRECT COSTS	207.15	_____	136.38	_____
INDIRECT (FIXED) COSTS				
-Misc. Overhead	8.00	_____	8.31	_____
-Machinery Depreciation	24.37	_____	24.34	_____
-Machinery Investment	14.74	_____	14.63	_____
-Land Charge	124.00	_____	124.00	_____
	=====	=====	=====	=====
SUM OF LISTED INDIRECT COSTS	171.11	_____	171.28	_____
SUM OF ALL LISTED COSTS	378.26	_____	307.66	_____
RETURN TO LABOR & MANAGEMENT	(24.98)	_____	(101.74)	_____
LISTED COSTS PER BUDGET UNIT	(lb)		(bu)	
-Direct Costs	0.15	_____	1.75	_____
-Indirect Costs	0.12	_____	2.20	_____
-Total Costs	0.27	_____	3.94	_____

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."

Winter Wheat

	Per Acre	Your Figures
Market Yield	54*	_____
Market Price	5.71	_____
MARKET INCOME	308.34	_____
DIRECT COSTS		
-Seed	13.65	_____
-Herbicides	23.90	_____
-Fungicides	9.00	_____
-Insecticides	0.00	_____
-Fertilizer	78.68	_____
-Crop Insurance	11.00	_____
-Fuel & Lubrication	16.96	_____
-Repairs	18.84	_____
-Drying	0.00	_____
-Miscellaneous	7.50	_____
-Operating Interest	3.81	_____
	=====	=====
SUM OF LISTED DIRECT COSTS	183.34	_____
INDIRECT (FIXED) COSTS		
-Misc. Overhead	7.44	_____
-Machinery Depreciation	21.95	_____
-Machinery Investment	12.51	_____
-Land Charge	124.00	_____
	=====	=====
SUM OF LISTED INDIRECT COSTS	165.89	_____
SUM OF ALL LISTED COSTS	349.23	_____
RETURN TO LABOR & MANAGEMENT	(40.89)	_____
LISTED COSTS PER BUDGET UNIT	(bu)	
-Direct Costs	3.40	_____
-Indirect Costs	3.07	_____
-Total Costs	6.47	_____

Winter Wheat notes:

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

2015 Machinery List

Machine	Purch. Price	Annual Use	Years to trade	Trade in	Deprec.	Invest.	Repairs	Ac/hr
FWA 140HP Tractor	128100	400 hr	20	40090	11.00 /hr	9.46 /hr	12.66 /hr	
FWA 180HP Tractor	173600	500 hr	15	49843	16.50 /hr	10.05 /hr	17.15 /hr	
4WD 340HP Tractor	228700	500 hr	15	65685	21.74 /hr	13.25 /hr	12.92 /hr	
SP Combine (base unit)	277800	250 hr	12	67068	70.24 /hr	31.04 /hr	43.77 /hr	
Tandem Truck (used)	37700	150 hr	15	12000	11.42 /hr	7.46 /hr	7.73 /hr	
Semi & Trailer (used)	42300	150 hr	10	12100	20.13 /hr	8.16 /hr	9.33 /hr	
Pick-up Truck	29800	300 hr	10	5900	7.97 /hr	2.68 /hr	3.50 /hr	
Swather 30 ft	30200	1000 ac	20	7152	1.15 /ac	0.84 /ac	0.49 /ac	13.1
Sprayer 90 ft	38200	5000 ac	10	19024	0.38 /ac	0.26 /ac	0.49 /ac	42.5
Chisel Plow 38 ft	42700	3000 ac	15	24932	0.39 /ac	0.51 /ac	0.95 /ac	19.6
Field Cultivator 48 ft	48900	3000 ac	15	28558	0.45 /ac	0.58 /ac	0.86 /ac	24.7
Tandem Disk 28 ft	33800	800 ac	20	9684	1.50 /ac	1.22 /ac	0.86 /ac	13.6
Heavy Harrow 70 ft	30600	2000 ac	20	17837	0.32 /ac	0.55 /ac	0.34 /ac	39.7
Air Seeder 40 ft	178100	2400 ac	10	91039	3.62 /ac	2.52 /ac	6.16 /ac	17.0
Planter 24-22	133300	1600 ac	15	55417	3.24 /ac	2.65 /ac	5.02 /ac	15.6
Bean cutter	13200	400 ac	20	3738	1.18 /ac	0.95 /ac	0.71 /ac	6.5
Corn head 12R w/chopper	115500	1000 ac	15	22116	6.22 /ac	3.10 /ac	2.44 /ac	7.5
Grain head w/pu	15400	800 ac	20	1511	0.87 /ac	0.47 /ac	0.24 /ac	10.2
Grain str. cut 30 ft	25600	1000 ac	15	5204	1.36 /ac	0.69 /ac	0.40 /ac	10.2
Head w/sunf pans 30 ft	30800	600 ac	20	3148	2.30 /ac	1.27 /ac	0.48 /ac	10.2
Flex head 30 ft	38000	1000 ac	20	3486	1.72 /ac	0.93 /ac	0.59 /ac	10.2
Head w/drybean pickups	30800	400 ac	20	3280	3.44 /ac	1.92 /ac	0.55 /ac	8.9
Grain Cart	30000	100 hr	20	5100	12.45 /hr	7.90 /hr	7.50 /hr	
Grain auger	12500	50 hr	20	725	11.78 /hr	5.95 /hr	4.70 /hr	

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