

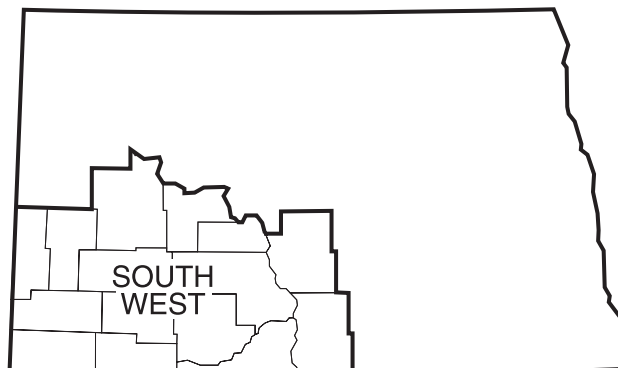
# Farm Management Planning Guide



Section VI, Region 4  
December 2003

## Projected 2004 Crop Budgets South West North Dakota

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The 2004 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!**

PROFITABILITY and CASH FLOW budgets are shown because each provides valuable information to the producer. To fully understand the budgets, it is important that you study the explanations of how each item is calculated.

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 profitability 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 investment cost items with your per acre interest, or rental, expense of machinery and land, respectively.

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 profitability 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 tax and investment are best estimates for only the 2004 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.

The CASH FLOW budget shows the one-year cash flow feasibility of the crop enterprise. The net cash flow represents the cash left for family living, state and federal taxes, saving and investment after all the cash operating expenses and 2004 land and machinery debt obligations (principal and interest payments) have been met. It is assumed that there are loans on 40% of the land and machinery investment. No depreciation or provision for machinery replacement is considered.

De-coupled payments under the 2002 Farm Bill are not included in the budgets because those payments are not tied to crop selection or production.

## Primary Assumptions For All Budgets:

**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 1996-2002, after the low and high yield years are removed. Yields for canola, field peas, crambe, safflower, yellow mustard, buckwheat, millet and garbanzo beans are from NDSU extension agronomists and industry sources.

Current cropland value/acre = \$310.00

Current cropland rent/acre = \$24.15

**Fertilizer:** Cost of fertilizer applied, based on soil test, to meet yield goal of 130% of market yield.

<b>Soil test</b>	<b>- recrop:</b>	<b>fallow:</b>
Nitrogen	- 55 lb	75 lb
Phosphorus	- 12 ppm	
Potassium	-356 ppm	

## Fertilizer prices:

Nitrogen	- .23/lb
Phosphorus	- .22/lb
Potassium	- .13/lb

## Seed Prices:

Spring Wheat	5.75/bu
Durum	6.25/bu
Barley	4.60/bu
Corn Grain RR	1.34/thous.kern.
Oil Sunflower	.64/thou.kern.
Conf. Sunflower	1.05/thou.kern.
Flax	9.00/bu
Canola	3.00/lb
Oats	3.50/bu
Field Peas	5.75/bu
Millet	.15/lb
Buckwheat	.28/lb
Safflower	.50/lb
Lentils	.23/lb
Mustard	.85/lb
Large Chickpeas	.50/lb
Rye	4.00/bu
Winter Wheat	4.75/bu
Corn silage	.80/thou.kern.
Alfalfa	2.10/lb

## Fuel prices:

Diesel	1.05/gal
Gas	1.45/gal

**Lubrication charge:** 15% of fuel cost

**Miscellaneous:** soil testing, machinery rent and custom work.

Direct costs charged 6.00% interest for 6 month period.

Costs of moving crop to storage are included.

Spring wheat and durum budgets for fallow and recrop. All other crops assumed to be planted on dryland recrop ground.

## Assumptions for Profitability Budgets:

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, \$1 per acre is assumed for general farm utilities, farm publications, meetings, dues, income tax preparation, legal fees, etc.

Land investment charge = average cash rent for region minus land tax.

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)

### Assumptions for Cash Cost Budgets:

Misc. Overhead - same as for "profitability" budget except the housing expense calculation for machinery is omitted.

Machinery Investment cost = Annual principal and interest payment on machinery debt. Loan amount is 40% of total machinery investment. Terms of machinery debt is 7 years at 6.5% interest. You should enter your actual annual debt payment for machinery per acre.

Land Investment cost = Annual principal and interest payment on land debt. Loan amount is 40% of crop land value. Terms of land debt is 30 years at 6.75% interest. You should use your actual annual land loan payment per acre. Substitute cash rent cost for land taxes and loan payment if land is cash rented instead of owned.

### Summer-fallow cost budget for crop/fallow rotation

	Economic Costs/AC	Cash Cost Per Acre
<b>DIRECT COST</b>		
-Fuel & Lubrication	4.51	4.51
-Repairs	4.61	4.61
-Interest	0.27	0.27
<b>TOTAL DIRECT COSTS</b>	<b>9.40</b>	<b>9.40</b>
<b>INDIRECT COSTS</b>		
-Misc. Overhead	2.21	1.76
-Mach. Depreciation	5.15	xxxxx
-Mach. Investment	4.05	9.22
-Land Taxes	3.58	3.58
-Land Investment	20.57	9.74
<b>TOTAL INDIRECT COSTS</b>	<b>35.56</b>	<b>24.30</b>
<b>TOTAL LISTED COSTS</b>	<b>44.96</b>	<b>33.70</b>

### Example Sequence of Operations

Field operations sequence for recrop spring wheat and durum.

OP. NO.	DESCRIPTION	(FEET) WIDTH	(MPH) SPEED	(AC/HR) Fld Cap	(\$/AC) FUEL & LUBE	(\$/AC) EST. REPAIRS
1	Chisel Plow + NH3	35	4.5	16.2	0.92	1.04
2	Pick Rocks		3.0	29.1	0.18	0.39
3	Plant	35	5.0	14.8	1.00	3.09
4	Spray	70	6.0	33.1	0.16	0.41
5	Combine str. cut	25	4.0	8.5	1.44	2.76
6	Heavy Harrow	70	5.5	39.7	0.21	0.44
	Trucks*				0.47	0.57
	Grain auger (pto)				0.07	0.01
	Pickup truck allocation				0.84	0.45
	<b>Total</b>				<b>5.30</b>	<b>9.15</b>

\* Truck costs will vary between crops.

# Spring Wheat (fallow)

Market Yield	30	Profitability	Cash Flow	Your
Market Price	3.27	Per Acre	Per Acre	Figures
MARKET INCOME		98.10	98.10	_____
DIRECT COSTS				
-Seed		7.19	7.19	_____
-Herbicides		2.06	2.06	_____
-Fungicides*		1.50	1.50	_____
-Insecticides		0.00	0.00	_____
-Fertilizer		7.47	7.47	_____
-Crop Insurance		2.70	2.70	_____
-Fuel & Lubrication		4.45	4.45	_____
-Repairs		8.20	8.20	_____
-Drying		0.00	0.00	_____
-Miscellaneous		1.00	1.00	_____
-Operating Interest		1.04	1.04	_____
SUM OF LISTED DIRECT COSTS		35.60	35.60	_____
INDIRECT (FIXED) COSTS				
-Misc. Overhead		3.17	2.46	_____
-Machinery Depreciation		10.57	xxxxxx	_____
-Machinery Investment		6.34	15.58	_____
-Land Taxes		3.58	3.58	_____
-Land Investment		20.57	9.74	_____
SUM OF LISTED INDIRECT COSTS		44.22	31.37	_____
DIRECT AND INDIRECT COSTS OF FALLOW		44.96	33.70	_____
SUM OF ALL LISTED COSTS		124.78	100.67	_____
RETURN TO LABOR & MANAGEMENT		(26.68)	xxxxxx	_____
NET CASH FLOW		xxxxxx	(2.57)	_____

notes:

\*Foliar fungicide would cost about \$9.50 plus application. Recent trials consistently show 15% to 20% yield improvement over diseased untreated crop.

# Spring Wheat (recrop)

Market Yield	26	Profitability	Cash Flow	Your
Market Price	3.27	Per Acre	Per Acre	Figures
MARKET INCOME		85.02	85.02	_____
DIRECT COSTS				
-Seed		7.19	7.19	_____
-Herbicides		8.70	8.70	_____
-Fungicides*		1.50	1.50	_____
-Insecticides		0.00	0.00	_____
-Fertilizer		8.77	8.77	_____
-Crop Insurance		3.00	3.00	_____
-Fuel & Lubrication		5.30	5.30	_____
-Repairs		9.15	9.15	_____
-Drying		0.00	0.00	_____
-Miscellaneous		1.00	1.00	_____
-Operating Interest		1.34	1.34	_____
		=====	=====	=====
SUM OF LISTED DIRECT COSTS		45.94	45.94	_____
INDIRECT (FIXED) COSTS				
-Misc. Overhead		3.37	2.58	_____
-Machinery Depreciation		11.47	xxxxxx	_____
-Machinery Investment		7.15	17.36	_____
-Land Taxes		3.58	3.58	_____
-Land Investment		20.57	9.74	_____
		=====	=====	=====
SUM OF LISTED INDIRECT COSTS		46.14	33.26	_____
SUM OF ALL LISTED COSTS		92.09	79.21	_____
RETURN TO LABOR & MANAGEMENT		(7.07)	xxxxxx	_____
NET CASH FLOW		xxxxxx	5.81	_____
LISTED COSTS PER BUDGET UNIT (bu) :				
-Direct Costs		1.77	1.77	_____
-Indirect Costs		1.77	1.28	_____
-Total Costs		3.54	3.05	_____

notes:

\*Foliar fungicide would cost about \$9.50 plus application. Recent trials consistently show 15% to 20% yield improvement over diseased untreated crop.

# Durum (fallow)

Market Yield	32	Profitability	Cash Flow	Your
Market Price	3.68	Per Acre	Per Acre	Figures
MARKET INCOME		117.76	117.76	_____
DIRECT COSTS				
-Seed		9.38	9.38	_____
-Herbicides		2.06	2.06	_____
-Fungicides*		1.50	1.50	_____
-Insecticides		0.00	0.00	_____
-Fertilizer		9.11	9.11	_____
-Crop Insurance		2.70	2.70	_____
-Fuel & Lubrication		4.49	4.49	_____
-Repairs		8.24	8.24	_____
-Drying		0.00	0.00	_____
-Miscellaneous		1.00	1.00	_____
-Operating Interest		1.15	1.15	_____
SUM OF LISTED DIRECT COSTS		39.63	39.63	_____
INDIRECT (FIXED) COSTS				
-Misc. Overhead		3.20	2.49	_____
-Machinery Depreciation		10.65	xxxxxx	_____
-Machinery Investment		6.40	15.75	_____
-Land Taxes		3.58	3.58	_____
-Land Investment		20.57	9.74	_____
SUM OF LISTED INDIRECT COSTS		44.40	31.56	_____
DIRECT AND INDIRECT COSTS OF FALLOW		44.96	33.70	_____
SUM OF ALL LISTED COSTS		128.99	104.89	_____
RETURN TO LABOR & MANAGEMENT		(11.23)	xxxxxx	_____
NET CASH FLOW		xxxxxx	12.87	_____

notes:

\*Foliar fungicide would cost about \$9.50 plus application. Recent trials consistently show 15% to 20% yield improvement over diseased untreated crop.

# Durum (recrop)

Market Yield	27	Profitability	Cash Flow	Your
Market Price	3.68	Per Acre	Per Acre	Figures
MARKET INCOME		99.36	99.36	_____
<b>DIRECT COSTS</b>				
-Seed		9.38	9.38	_____
-Herbicides		8.70	8.70	_____
-Fungicides*		1.50	1.50	_____
-Insecticides		0.00	0.00	_____
-Fertilizer		9.59	9.59	_____
-Crop Insurance		3.00	3.00	_____
-Fuel & Lubrication		5.31	5.31	_____
-Repairs		9.17	9.17	_____
-Drying		0.00	0.00	_____
-Miscellaneous		1.00	1.00	_____
-Operating Interest		1.43	1.43	_____
SUM OF LISTED DIRECT COSTS		49.09	49.09	_____
<b>INDIRECT (FIXED) COSTS</b>				
-Misc. Overhead		3.39	2.59	_____
-Machinery Depreciation		11.51	xxxxxx	_____
-Machinery Investment		7.18	17.44	_____
-Land Taxes		3.58	3.58	_____
-Land Investment		20.57	9.74	_____
SUM OF LISTED INDIRECT COSTS		46.23	33.36	_____
SUM OF ALL LISTED COSTS		95.32	82.45	_____
RETURN TO LABOR & MANAGEMENT		4.04	xxxxxx	_____
NET CASH FLOW		xxxxxx	16.91	_____
<b>LISTED COSTS PER BUDGET UNIT (bu) :</b>				
-Direct Costs		1.82	1.82	_____
-Indirect Costs		1.71	1.24	_____
-Total Costs		3.53	3.05	_____

notes:

\*Foliar fungicide would cost about \$9.50 plus application. Recent trials consistently show 15% to 20% yield improvement over diseased untreated crop.

# Malting Barley

Market Yield	45	Profitability	Cash Flow	Your
Market Price*	2.38	Per Acre	Per Acre	Figures
MARKET INCOME		107.10	107.10	_____
<b>DIRECT COSTS</b>				
-Seed		5.75	5.75	_____
-Herbicides		7.00	7.00	_____
-Fungicides		1.25	1.25	_____
-Insecticides		0.00	0.00	_____
-Fertilizer		9.91	9.91	_____
-Crop Insurance		3.40	3.40	_____
-Fuel & Lubrication		6.16	6.16	_____
-Repairs		10.52	10.52	_____
-Drying		0.00	0.00	_____
-Miscellaneous		1.00	1.00	_____
-Operating Interest		1.35	1.35	_____
SUM OF LISTED DIRECT COSTS		46.34	46.34	_____
<b>INDIRECT (FIXED) COSTS</b>				
-Misc. Overhead		3.97	3.01	_____
-Machinery Depreciation		13.41	xxxxxx	_____
-Machinery Investment		8.57	21.01	_____
-Land Taxes		3.58	3.58	_____
-Land Investment		20.57	9.74	_____
SUM OF LISTED INDIRECT COSTS		50.10	37.35	_____
SUM OF ALL LISTED COSTS		96.44	83.69	_____
RETURN TO LABOR & MANAGEMENT		10.66	xxxxxx	_____
NET CASH FLOW		xxxxxx	23.41	_____
<b>LISTED COSTS PER BUDGET UNIT (bu) :</b>				
-Direct Costs		1.03	1.03	_____
-Indirect Costs		1.11	0.83	_____
-Total Costs		2.14	1.86	_____

notes:

\*On average, about 50% of production is feed quality.  
Feed barley price projection is \$1.80.



# Corn Grain

	69	Profitability	Cash Flow	Your
Market Yield		Per Acre	Per Acre	Figures
Market Price	2.08			
<b>MARKET INCOME</b>		143.52	143.52	_____
<b>DIRECT COSTS</b>				
-Seed*		25.46	25.46	_____
-Herbicides		11.50	11.50	_____
-Fungicides		0.00	0.00	_____
-Insecticides**		0.00	0.00	_____
-Fertilizer		15.50	15.50	_____
-Crop Insurance***		0.00	0.00	_____
-Fuel & Lubrication		7.99	7.99	_____
-Repairs		13.48	13.48	_____
-Drying		6.21	6.21	_____
-Miscellaneous		1.00	1.00	_____
-Operating Interest		2.43	2.43	_____
		=====	=====	=====
<b>SUM OF LISTED DIRECT COSTS</b>		83.57	83.57	_____
<b>INDIRECT (FIXED) COSTS</b>				
-Misc. Overhead		5.18	3.85	_____
-Machinery Depreciation		19.86	xxxxxx	_____
-Machinery Investment		12.03	30.97	_____
-Land Taxes		3.58	3.58	_____
-Land Investment		20.57	9.74	_____
		=====	=====	=====
<b>SUM OF LISTED INDIRECT COSTS</b>		61.22	48.14	_____
<b>SUM OF ALL LISTED COSTS</b>		144.79	131.71	_____
<b>RETURN TO LABOR &amp; MANAGEMENT</b>		(1.27)	xxxxxx	_____
<b>NET CASH FLOW</b>		xxxxxx	11.81	_____
<b>LISTED COSTS PER BUDGET UNIT (bu) :</b>				
-Direct Costs		1.21	1.21	_____
-Indirect Costs		0.89	0.70	_____
-Total Costs		2.10	1.91	_____

notes:

\*Roundup (glyphosate) resistant corn.

\*\*Corn borer insecticide, foliar applied mid-season, would cost about \$7 plus application.

\*\*\*Crop insurance is only available by written agreement.

# Oil Sunflower

Market Yield	1330	Profitability	Cash Flow	Your
Market Price	0.107	Per Acre	Per Acre	Figures
MARKET INCOME		142.31	142.31	_____
DIRECT COSTS				
-Seed*		15.04	15.04	_____
-Herbicides		17.70	17.70	_____
-Fungicides**		0.00	0.00	_____
-Insecticides		0.00	0.00	_____
-Fertilizer		9.40	9.40	_____
-Crop Insurance		8.70	8.70	_____
-Fuel & Lubrication		5.37	5.37	_____
-Repairs		9.12	9.12	_____
-Drying		2.66	2.66	_____
-Miscellaneous		1.00	1.00	_____
-Operating Interest		2.07	2.07	_____
SUM OF LISTED DIRECT COSTS		71.06	71.06	_____
INDIRECT (FIXED) COSTS				
-Misc. Overhead		3.72	2.85	_____
-Machinery Depreciation		12.82	xxxxxx	_____
-Machinery Investment		7.83	19.72	_____
-Land Taxes		3.58	3.58	_____
-Land Investment		20.57	9.74	_____
SUM OF LISTED INDIRECT COSTS		48.51	35.89	_____
SUM OF ALL LISTED COSTS		119.57	106.95	_____
RETURN TO LABOR & MANAGEMENT		22.74	xxxxxx	_____
NET CASH FLOW		xxxxxx	35.36	_____
LISTED COSTS PER BUDGET UNIT (lb) :				
-Direct Costs		0.05	0.05	_____
-Indirect Costs		0.04	0.03	_____
-Total Costs		0.09	0.08	_____

notes:

\*Solid seeded.

\*\*Sunflower beetle insecticide would cost about \$2 plus application.

Red seed weevil insecticide would cost about \$6 plus application.

# Confectionery Sunflower

Market Yield	1240	Profitability	Cash Flow	Your
Market Price	0.143	Per Acre	Per Acre	Figures
MARKET INCOME		177.32	177.32	_____
DIRECT COSTS				
-Seed*		22.05	22.05	_____
-Herbicides		17.70	17.70	_____
-Fungicides		0.00	0.00	_____
-Insecticides**		6.00	6.00	_____
-Fertilizer		7.91	7.91	_____
-Crop Insurance		11.00	11.00	_____
-Fuel & Lubrication		5.04	5.04	_____
-Repairs		8.83	8.83	_____
-Drying		2.48	2.48	_____
-Miscellaneous		5.50	5.50	_____
-Operating Interest		2.60	2.60	_____
		=====	=====	=====
SUM OF LISTED DIRECT COSTS		89.11	89.11	_____
INDIRECT (FIXED) COSTS				
-Misc. Overhead		3.57	2.75	_____
-Machinery Depreciation		12.39	xxxxxx	_____
-Machinery Investment		7.43	18.83	_____
-Land Taxes		3.58	3.58	_____
-Land Investment		20.57	9.74	_____
		=====	=====	=====
SUM OF LISTED INDIRECT COSTS		47.54	34.90	_____
SUM OF ALL LISTED COSTS		136.65	124.00	_____
RETURN TO LABOR & MANAGEMENT		40.67	xxxxxx	_____
NET CASH FLOW		xxxxxx	53.32	_____
LISTED COSTS PER BUDGET UNIT (lb) :				
-Direct Costs		0.07	0.07	_____
-Indirect Costs		0.04	0.03	_____
-Total Costs		0.11	0.10	_____

notes:

\*Solid seeded.

\*\*One treatment of insecticide for red seed weevil, lygus bugs and banded moths. Custom application cost of \$4.50 is under "Miscellaneous." A second treatment is often needed. Insecticide for sunflower beetle would cost about \$2 plus application.

# Flax

Market Yield	18	Profitability	Cash Flow	Your
Market Price	5.10	Per Acre	Per Acre	Figures
MARKET INCOME		91.80	91.80	_____
DIRECT COSTS				
-Seed		5.40	5.40	_____
-Herbicides		14.71	14.71	_____
-Fungicides		0.00	0.00	_____
-Insecticides		0.00	0.00	_____
-Fertilizer		5.01	5.01	_____
-Crop Insurance		7.00	7.00	_____
-Fuel & Lubrication		6.10	6.10	_____
-Repairs		10.30	10.30	_____
-Drying		0.00	0.00	_____
-Miscellaneous		1.00	1.00	_____
-Operating Interest		1.49	1.49	_____
SUM OF LISTED DIRECT COSTS		51.00	51.00	_____
INDIRECT (FIXED) COSTS				
-Misc. Overhead		3.52	2.64	_____
-Machinery Depreciation		12.64	xxxxxx	_____
-Machinery Investment		7.87	19.21	_____
-Land Taxes		3.58	3.58	_____
-Land Investment		20.57	9.74	_____
SUM OF LISTED INDIRECT COSTS		48.18	35.18	_____
SUM OF ALL LISTED COSTS		99.18	86.19	_____
RETURN TO LABOR & MANAGEMENT		(7.38)	xxxxxx	_____
NET CASH FLOW		xxxxxx	5.61	_____
LISTED COSTS PER BUDGET UNIT (bu) :				
-Direct Costs		2.83	2.83	_____
-Indirect Costs		2.68	1.95	_____
-Total Costs		5.51	4.79	_____

notes:

# Canola

Market Yield	1250	Profitability	Cash Flow	Your
Market Price	0.094	Per Acre	Per Acre	Figures
MARKET INCOME		117.50	117.50	_____
DIRECT COSTS				
-Seed		16.50	16.50	_____
-Herbicides		15.75	15.75	_____
-Fungicides		0.00	0.00	_____
-Insecticides		7.00	7.00	_____
-Fertilizer*		20.28	20.28	_____
-Crop Insurance		4.10	4.10	_____
-Fuel & Lubrication		5.23	5.23	_____
-Repairs		9.05	9.05	_____
-Drying		0.00	0.00	_____
-Miscellaneous		1.00	1.00	_____
-Operating Interest		2.37	2.37	_____
		=====	=====	=====
SUM OF LISTED DIRECT COSTS		81.27	81.27	_____
INDIRECT (FIXED) COSTS				
-Misc. Overhead		3.33	2.55	_____
-Machinery Depreciation		11.51	xxxxxx	_____
-Machinery Investment		7.03	17.53	_____
-Land Taxes		3.58	3.58	_____
-Land Investment		20.57	9.74	_____
		=====	=====	=====
SUM OF LISTED INDIRECT COSTS		46.01	33.40	_____
SUM OF ALL LISTED COSTS		127.29	114.67	_____
RETURN TO LABOR & MANAGEMENT		(9.79)	xxxxxx	_____
NET CASH FLOW		xxxxxx	2.83	_____
LISTED COSTS PER BUDGET UNIT (lb) :				
-Direct Costs		0.07	0.07	_____
-Indirect Costs		0.04	0.03	_____
-Total Costs		0.10	0.09	_____

notes:

\*Fertilizer cost includes 20 lbs sulfur at \$.26/lb.

# Oats

Market Yield	53	Profitability	Cash Flow	Your
Market Price	1.27	Per Acre	Per Acre	Figures
MARKET INCOME		67.31	67.31	_____
DIRECT COSTS				
-Seed		7.00	7.00	_____
-Herbicides		1.88	1.88	_____
-Fungicides		0.00	0.00	_____
-Insecticides		0.00	0.00	_____
-Fertilizer		10.26	10.26	_____
-Crop Insurance		3.80	3.80	_____
-Fuel & Lubrication		6.30	6.30	_____
-Repairs		10.69	10.69	_____
-Drying		0.00	0.00	_____
-Miscellaneous		1.00	1.00	_____
-Operating Interest		1.23	1.23	_____
SUM OF LISTED DIRECT COSTS		42.16	42.16	_____
INDIRECT (FIXED) COSTS				
-Misc. Overhead		4.11	3.13	_____
-Machinery Depreciation		13.74	xxxxxx	_____
-Machinery Investment		8.82	21.66	_____
-Land Taxes		3.58	3.58	_____
-Land Investment		20.57	9.74	_____
SUM OF LISTED INDIRECT COSTS		50.82	38.11	_____
SUM OF ALL LISTED COSTS		92.98	80.27	_____
RETURN TO LABOR & MANAGEMENT		(25.67)	xxxxxx	_____
NET CASH FLOW		xxxxxx	(12.96)	_____
LISTED COSTS PER BUDGET UNIT (bu) :				
-Direct Costs		0.80	0.80	_____
-Indirect Costs		0.96	0.72	_____
-Total Costs		1.75	1.51	_____

notes:

# Field Peas

Market Yield	30	Profitability	Cash Flow	Your
Market Price*	3.84	Per Acre	Per Acre	Figures
MARKET INCOME		115.20	115.20	_____
<b>DIRECT COSTS</b>				
-Seed**		17.25	17.25	_____
-Herbicides		14.64	14.64	_____
-Fungicides		0.00	0.00	_____
-Insecticides		0.00	0.00	_____
-Fertilizer		2.01	2.01	_____
-Crop Insurance		4.40	4.40	_____
-Fuel & Lubrication		5.52	5.52	_____
-Repairs		9.90	9.90	_____
-Drying		0.00	0.00	_____
-Miscellaneous		2.00	2.00	_____
-Operating Interest		1.67	1.67	_____
		=====	=====	=====
SUM OF LISTED DIRECT COSTS		57.38	57.38	_____
<b>INDIRECT (FIXED) COSTS</b>				
-Misc. Overhead		3.48	2.66	_____
-Machinery Depreciation		12.63	xxxxxx	_____
-Machinery Investment		7.39	18.26	_____
-Land Taxes		3.58	3.58	_____
-Land Investment		20.57	9.74	_____
		=====	=====	=====
SUM OF LISTED INDIRECT COSTS		47.65	34.24	_____
SUM OF ALL LISTED COSTS		105.03	91.62	_____
RETURN TO LABOR & MANAGEMENT		10.17	xxxxxx	_____
NET CASH FLOW		xxxxxx	23.58	_____
<b>LISTED COSTS PER BUDGET UNIT (bu) :</b>				
-Direct Costs		1.91	1.91	_____
-Indirect Costs		1.59	1.14	_____
-Total Costs		3.50	3.50	_____

notes:

\*Food quality price estimate. Feed price of about \$2.75 is below loan rate.

\*\*Producer's own seed is used. Seed cost for new grower would be about \$27.

# Millet

Market Yield	1400	Profitability	Cash Flow	Your
Market Price	0.06	Per Acre	Per Acre	Figures
MARKET INCOME		84.00	84.00	_____
DIRECT COSTS				
-Seed		3.75	3.75	_____
-Herbicides		1.50	1.50	_____
-Fungicides		0.00	0.00	_____
-Insecticides		0.00	0.00	_____
-Fertilizer		3.56	3.56	_____
-Crop Insurance		0.00	0.00	_____
-Fuel & Lubrication		5.49	5.49	_____
-Repairs		9.56	9.56	_____
-Drying		0.00	0.00	_____
-Miscellaneous		1.00	1.00	_____
-Operating Interest		0.75	0.75	_____
		=====	=====	=====
SUM OF LISTED DIRECT COSTS		25.61	25.61	_____
INDIRECT (FIXED) COSTS				
-Misc. Overhead		3.53	2.68	_____
-Machinery Depreciation		12.04	xxxxxx	_____
-Machinery Investment		7.61	18.83	_____
-Land Taxes		3.58	3.58	_____
-Land Investment		20.57	9.74	_____
		=====	=====	=====
SUM OF LISTED INDIRECT COSTS		47.33	34.83	_____
SUM OF ALL LISTED COSTS		72.95	60.45	_____
RETURN TO LABOR & MANAGEMENT		11.05	xxxxxx	_____
NET CASH FLOW		xxxxxx	23.55	_____
LISTED COSTS PER BUDGET UNIT (lb) :				
-Direct Costs		0.02	0.02	_____
-Indirect Costs		0.03	0.02	_____
-Total Costs		0.05	0.04	_____

notes:



# Buckwheat

Market Yield	800	Profitability	Cash Flow	Your
Market Price	0.105	Per Acre	Per Acre	Figures
MARKET INCOME		84.00	84.00	_____
DIRECT COSTS				
-Seed		14.00	14.00	_____
-Herbicides		0.00	0.00	_____
-Fungicides		0.00	0.00	_____
-Insecticides		0.00	0.00	_____
-Fertilizer		1.54	1.54	_____
-Crop Insurance		0.00	0.00	_____
-Fuel & Lubrication		5.58	5.58	_____
-Repairs		9.30	9.30	_____
-Drying		0.00	0.00	_____
-Miscellaneous		1.00	1.00	_____
-Operating Interest		0.94	0.94	_____
		=====	=====	=====
SUM OF LISTED DIRECT COSTS		32.36	32.36	_____
INDIRECT (FIXED) COSTS				
-Misc. Overhead		3.29	2.50	_____
-Machinery Depreciation		11.55	xxxxxx	_____
-Machinery Investment		7.10	17.59	_____
-Land Taxes		3.58	3.58	_____
-Land Investment		20.57	9.74	_____
		=====	=====	=====
SUM OF LISTED INDIRECT COSTS		46.09	33.41	_____
SUM OF ALL LISTED COSTS		78.45	65.77	_____
RETURN TO LABOR & MANAGEMENT		5.55	xxxxxx	_____
NET CASH FLOW		xxxxxx	18.23	_____
LISTED COSTS PER BUDGET UNIT (lb) :				
-Direct Costs		0.04	0.04	_____
-Indirect Costs		0.06	0.04	_____
-Total Costs		0.10	0.08	_____

notes:

# Safflower

Market Yield	900	Profitability	Cash Flow	Your
Market Price	0.13	Per Acre	Per Acre	Figures
MARKET INCOME		117.00	117.00	_____
DIRECT COSTS				
-Seed		12.50	12.50	_____
-Herbicides		9.39	9.39	_____
-Fungicides		0.10	0.10	_____
-Insecticides		0.00	0.00	_____
-Fertilizer		2.50	2.50	_____
-Crop Insurance		3.40	3.40	_____
-Fuel & Lubrication		4.60	4.60	_____
-Repairs		8.02	8.02	_____
-Drying		0.00	0.00	_____
-Miscellaneous		1.00	1.00	_____
-Operating Interest		1.25	1.25	_____
		=====	=====	=====
SUM OF LISTED DIRECT COSTS		42.76	42.76	_____
INDIRECT (FIXED) COSTS				
-Misc. Overhead		2.99	2.33	_____
-Machinery Depreciation		10.24	xxxxxx	_____
-Machinery Investment		5.95	14.66	_____
-Land Taxes		3.58	3.58	_____
-Land Investment		20.57	9.74	_____
		=====	=====	=====
SUM OF LISTED INDIRECT COSTS		43.33	30.32	_____
SUM OF ALL LISTED COSTS		86.09	73.08	_____
RETURN TO LABOR & MANAGEMENT		30.91	xxxxxx	_____
NET CASH FLOW		xxxxxx	43.92	_____
LISTED COSTS PER BUDGET UNIT (lb) :				
-Direct Costs		0.05	0.05	_____
-Indirect Costs		0.05	0.03	_____
-Total Costs		0.10	0.08	_____

notes:

# Lentils

Market Yield	1150	Profitability	Cash Flow	Your
Market Price	0.134	Per Acre	Per Acre	Figures
MARKET INCOME		154.10	154.10	_____
DIRECT COSTS				
-Seed		16.10	16.10	_____
-Herbicides		16.14	16.14	_____
-Fungicides		0.00	0.00	_____
-Insecticides		0.00	0.00	_____
-Fertilizer		1.28	1.28	_____
-Crop Insurance		6.80	6.80	_____
-Fuel & Lubrication		6.36	6.36	_____
-Repairs		10.80	10.80	_____
-Drying		0.00	0.00	_____
-Miscellaneous		4.00	4.00	_____
-Operating Interest		1.84	1.84	_____
		=====	=====	=====
SUM OF LISTED DIRECT COSTS		63.33	63.33	_____
INDIRECT (FIXED) COSTS				
-Misc. Overhead		3.60	2.70	_____
-Machinery Depreciation		12.78	xxxxxx	_____
-Machinery Investment		8.12	20.03	_____
-Land Taxes		3.58	3.58	_____
-Land Investment		20.57	9.74	_____
		=====	=====	=====
SUM OF LISTED INDIRECT COSTS		48.65	36.06	_____
SUM OF ALL LISTED COSTS		111.98	99.39	_____
RETURN TO LABOR & MANAGEMENT		42.12	xxxxxx	_____
NET CASH FLOW		xxxxxx	54.71	_____
LISTED COSTS PER BUDGET UNIT (lb) :				
-Direct Costs		0.06	0.06	_____
-Indirect Costs		0.04	0.03	_____
-Total Costs		0.10	0.09	_____

notes:

# Yellow Mustard

Market Yield	850	Profitability	Cash Flow	Your
Market Price	0.144	Per Acre	Per Acre	Figures
MARKET INCOME		122.40	122.40	_____
DIRECT COSTS				
-Seed		8.50	8.50	_____
-Herbicides		5.95	5.95	_____
-Fungicides		0.00	0.00	_____
-Insecticides		0.00	0.00	_____
-Fertilizer		6.20	6.20	_____
-Crop Insurance		0.00	0.00	_____
-Fuel & Lubrication		5.53	5.53	_____
-Repairs		9.24	9.24	_____
-Drying		0.00	0.00	_____
-Miscellaneous		1.00	1.00	_____
-Operating Interest		1.09	1.09	_____
		=====	=====	=====
SUM OF LISTED DIRECT COSTS		37.52	37.52	_____
INDIRECT (FIXED) COSTS				
-Misc. Overhead		3.24	2.46	_____
-Machinery Depreciation		11.45	xxxxxx	_____
-Machinery Investment		7.02	17.38	_____
-Land Taxes		3.58	3.58	_____
-Land Investment		20.57	9.74	_____
		=====	=====	=====
SUM OF LISTED INDIRECT COSTS		45.85	33.16	_____
SUM OF ALL LISTED COSTS		83.37	70.68	_____
RETURN TO LABOR & MANAGEMENT		39.03	xxxxxx	_____
NET CASH FLOW		xxxxxx	51.72	_____
LISTED COSTS PER BUDGET UNIT (lb) :				
-Direct Costs		0.04	0.04	_____
-Indirect Costs		0.05	0.04	_____
-Total Costs		0.10	0.08	_____

notes:

# Large Chickpeas

Market Yield	1000	Profitability	Cash Flow	Your
Market Price	0.17	Per Acre	Per Acre	Figures
MARKET INCOME		170.00	170.00	_____
<b>DIRECT COSTS</b>				
-Seed		60.00	60.00	_____
-Herbicides		16.14	16.14	_____
-Fungicides*		29.00	29.00	_____
-Insecticides		0.00	0.00	_____
-Fertilizer		1.80	1.80	_____
-Crop Insurance		0.00	0.00	_____
-Fuel & Lubrication		5.63	5.63	_____
-Repairs		9.96	9.96	_____
-Drying		0.00	0.00	_____
-Miscellaneous		15.00	15.00	_____
-Operating Interest		4.13	4.13	_____
SUM OF LISTED DIRECT COSTS		141.66	141.66	_____
<b>INDIRECT (FIXED) COSTS</b>				
-Misc. Overhead		3.30	2.50	_____
-Machinery Depreciation		12.40	xxxxxx	_____
-Machinery Investment		7.17	17.68	_____
-Land Taxes		3.58	3.58	_____
-Land Investment 20.57		9.74		_____
SUM OF LISTED INDIRECT COSTS		47.02	33.50	_____
SUM OF ALL LISTED COSTS		188.67	175.16	_____
RETURN TO LABOR & MANAGEMENT		(18.67)	xxxxxx	_____
NET CASH FLOW		xxxxxx	(5.16)	_____
<b>LISTED COSTS PER BUDGET UNIT (lb) :</b>				
-Direct Costs		0.14	0.14	_____
-Indirect Costs		0.05	0.03	_____
-Total Costs		0.19	0.18	_____

notes:

\*Two separate treatments of fungicide for ascochyta. Custom application cost, seed inoculant and roller rental are under "Miscellaneous."

# Rye

Market Yield	35	Profitability	Cash Flow	Your
Market Price	1.94	Per Acre	Per Acre	Figures
MARKET INCOME		67.90	67.90	_____
DIRECT COSTS				
-Seed		4.80	4.80	_____
-Herbicides		0.00	0.00	_____
-Fungicides		0.00	0.00	_____
-Insecticides		0.00	0.00	_____
-Fertilizer		16.19	16.19	_____
-Crop Insurance		3.00	3.00	_____
-Fuel & Lubrication		5.72	5.72	_____
-Repairs		9.31	9.31	_____
-Drying		0.00	0.00	_____
-Miscellaneous		1.00	1.00	_____
-Operating Interest		1.20	1.20	_____
		=====	=====	=====
SUM OF LISTED DIRECT COSTS		41.22	41.22	_____
INDIRECT (FIXED) COSTS				
-Misc. Overhead		3.48	2.67	_____
-Machinery Depreciation		11.77	xxxxxx	_____
-Machinery Investment		7.24	17.68	_____
-Land Taxes		3.58	3.58	_____
-Land Investment		20.57	9.74	_____
		=====	=====	=====
SUM OF LISTED INDIRECT COSTS		46.64	33.67	_____
SUM OF ALL LISTED COSTS		87.86	74.89	_____
RETURN TO LABOR & MANAGEMENT	(19.96)		xxxxxx	_____
NET CASH FLOW		xxxxxx	(6.99)	_____
LISTED COSTS PER BUDGET UNIT (bu) :				
-Direct Costs		1.18	1.18	_____
-Indirect Costs		1.33	0.96	_____
-Total Costs		2.51	2.14	_____

notes:

# Winter Wheat

Market Yield*	32	Profitability	Cash Flow	Your
Market Price	2.86	Per Acre	Per Acre	Figures
MARKET INCOME		91.52	91.52	_____
DIRECT COSTS				
-Seed		4.75	4.75	_____
-Herbicides		1.50	1.50	_____
-Fungicides		0.00	0.00	_____
-Insecticides		0.00	0.00	_____
-Fertilizer		13.71	13.71	_____
-Crop Insurance		3.00	3.00	_____
-Fuel & Lubrication		5.13	5.13	_____
-Repairs		9.05	9.05	_____
-Drying		0.00	0.00	_____
-Miscellaneous		1.00	1.00	_____
-Operating Interest		1.14	1.14	_____
SUM OF LISTED DIRECT COSTS		39.29	39.29	_____
INDIRECT (FIXED) COSTS				
-Misc. Overhead		3.39	2.61	_____
-Machinery Depreciation		11.40	xxxxxx	_____
-Machinery Investment		7.03	17.18	_____
-Land Taxes		3.58	3.58	_____
-Land Investment		20.57	9.74	_____
SUM OF LISTED INDIRECT COSTS		45.98	33.11	_____
SUM OF ALL LISTED COSTS		85.27	72.40	_____
RETURN TO LABOR & MANAGEMENT		6.25	xxxxxx	_____
NET CASH FLOW		xxxxxx	19.12	_____
LISTED COSTS PER BUDGET UNIT (bu) :				
-Direct Costs		1.23	1.23	_____
-Indirect Costs		1.44	1.03	_____
-Total Costs		2.66	2.26	_____

notes:

\*Yield is per harvested acre, 1996-2002 acreage abandonment averaged 20%.

# Corn Silage

		Profitability	Cash Flow	Your
Market Yield	7.2	Per Acre	Per Acre	Figures
Market Price	18.00			
<b>MARKET INCOME</b>		129.60	129.60	
<b>DIRECT COSTS</b>				
-Seed		14.40	14.40	
-Herbicides		15.00	15.00	
-Fungicides		0.00	0.00	
-Insecticides		0.00	0.00	
-Fertilizer		12.66	12.66	
-Crop Insurance		5.00	5.00	
-Fuel & Lubrication		5.33	5.33	
-Repairs		8.60	8.60	
-Drying		0.00	0.00	
-Miscellaneous*		28.50	28.50	
-Operating Interest		2.68	2.68	
		=====	=====	
<b>SUM OF LISTED DIRECT COSTS</b>		92.18	92.18	
<b>INDIRECT (FIXED) COSTS</b>				
-Misc. Overhead		2.85	2.16	
-Machinery Depreciation		7.94	xxxxxx	
-Machinery Investment		6.16	14.74	
-Land Taxes		3.58	3.58	
-Land Investment		20.57	9.74	
		=====	=====	
<b>SUM OF LISTED INDIRECT COSTS</b>		41.10	30.23	
<b>SUM OF ALL LISTED COSTS</b>		133.28	122.41	
<b>RETURN TO LABOR &amp; MANAGEMENT</b>		(3.68)	xxxxxx	
<b>NET CASH FLOW</b>		xxxxxx	7.19	
<b>LISTED COSTS PER BUDGET UNIT (ton) :</b>				
-Direct Costs		12.80	12.80	
-Indirect Costs		5.71	4.20	
-Total Costs		18.51	17.00	

notes:

\*includes custom harvest and hauling



# Oats Hay Crop and Alfalfa Seeding

Market Yield	1.7	Profitability	Cash Flow	Your
Market Price	36.00	Per Acre	Per Acre	Figures
MARKET INCOME		61.20	61.20	_____
DIRECT COSTS				
-Seed		28.00	28.00	_____
-Herbicides		0.00	0.00	_____
-Fungicides		0.00	0.00	_____
-Insecticides		0.00	0.00	_____
-Fertilizer		11.57	11.57	_____
-Crop Insurance		0.00	0.00	_____
-Fuel & Lubrication		6.53	6.53	_____
-Repairs		11.01	11.01	_____
-Drying		0.00	0.00	_____
-Miscellaneous		1.80	1.80	_____
-Operating Interest		1.77	1.77	_____
SUM OF LISTED DIRECT COSTS		60.68	60.68	_____
INDIRECT (FIXED) COSTS				
-Misc. Overhead		4.23	3.28	_____
-Machinery Depreciation		11.17	xxxxxx	_____
-Machinery Investment		8.52	20.98	_____
-Land Taxes		3.58	3.58	_____
-Land Investment		20.57	9.74	_____
SUM OF LISTED INDIRECT COSTS		48.06	37.58	_____
SUM OF ALL LISTED COSTS		108.74	98.26	_____
RETURN TO LABOR & MANAGEMENT		(47.54)	xxxxxx	_____
NET CASH FLOW		xxxxxx	(37.06)	_____
LISTED COSTS PER BUDGET UNIT (ton) :				
-Direct Costs		35.69	35.69	_____
-Indirect Costs		28.27	22.11	_____
-Total Costs		63.96	57.80	_____

notes:

# Alfalfa (established)

	1.7	Profitability	Cash Flow	Your
Market Yield	55.00	Per Acre	Per Acre	Figures
Market Price				
MARKET INCOME		93.50	93.50	_____
<b>DIRECT COSTS</b>				
-Seed		0.00	0.00	_____
-Herbicides		0.00	0.00	_____
-Fungicides		0.00	0.00	_____
-Insecticides		0.00	0.00	_____
-Fertilizer		2.26	2.26	_____
-Crop Insurance		0.00	0.00	_____
-Fuel & Lubrication		4.55	4.55	_____
-Repairs		8.28	8.28	_____
-Drying		0.00	0.00	_____
-Miscellaneous		2.50	2.50	_____
-Operating Interest		0.53	0.53	_____
		=====	=====	=====
SUM OF LISTED DIRECT COSTS		18.12	18.12	_____
<b>INDIRECT (FIXED) COSTS</b>				
-Misc. Overhead		3.80	3.02	_____
-Machinery Depreciation		9.37	xxxxxx	_____
-Machinery Investment		7.08	17.98	_____
-Land Taxes		3.58	3.58	_____
-Land Investment		20.57	9.74	_____
		=====	=====	=====
SUM OF LISTED INDIRECT COSTS		44.40	34.32	_____
SUM OF ALL LISTED COSTS		62.52	52.43	_____
RETURN TO LABOR & MANAGEMENT		30.98	xxxxxx	_____
NET CASH FLOW		xxxxxx	41.07	_____
<b>LISTED COSTS PER BUDGET UNIT (ton) :</b>				
-Direct Costs		10.66	10.66	_____
-Indirect Costs		26.12	20.19	_____
-Total Costs		36.78	30.84	_____

notes:

# Machinery List

Machine	Purch. Price	Annual Use	Years to trade	Trade in	Deprec.	Invest.	Repairs	Ac/hr
2WD 100HP Tractor	49800	400 hr	20	16068	4.22/hr	3.71/hr	5.07/hr	
2WD 160HP Tractor	82100	500 hr	15	24287	7.71/hr	4.79/hr	8.36/hr	
4WD 280HP Tractor	113000	500 hr	15	33440	10.61/hr	6.59/hr	6.58/hr	
SP Combine (base unit)	130900	250 hr	12	32549	32.78/hr	14.71/hr	21.24/hr	
Tandem Truck (2)	50300	150 hr	20	12750	12.52/hr	9.46/hr	6.60/hr	
Pick-up Truck	18600	300 hr	10	3800	4.93/hr	1.68/hr	2.47/hr	
Swather 25 ft	13500	1000 ac	20	3183	0.52/ac	0.38/ac	0.23/ac	12.1
Sprayer 70 ft	15600	2200 ac	15	6203	0.28/ac	0.22/ac	0.26/ac	33.1
Chisel Plow 35 ft	23800	1600 ac	15	13906	0.41/ac	0.53/ac	0.64/ac	16.2
Field Cultivator 45 ft	29800	3000 ac	15	16489	0.30/ac	0.35/ac	0.53/ac	23.2
Tandem Disk 28 ft	22800	800 ac	20	6553	1.02/ac	0.83/ac	0.65/ac	12.2
Harrow (springtooth) 60 ft	9700	1200 ac	20	5589	0.17/ac	0.29/ac	0.13/ac	34.0
Heavy Harrow 70 ft	20700	2000 ac	20	12102	0.22/ac	0.37/ac	0.23/ac	39.7
Row-crop cultivator 12-30	9900	800 ac	15	5463	0.37/ac	0.43/ac	0.37/ac	11.6
Air Seeder 35 ft	67400	1800 ac	12	31533	1.66/ac	1.24/ac	2.65/ac	14.8
Planter 12-30	36500	800 ac	20	12143	1.52/ac	1.37/ac	2.02/ac	10.6
Corn head 6-30	23400	400 ac	20	2192	2.65/ac	1.44/ac	0.83/ac	4.5
Grain head w/pu	10200	600 ac	20	1024	0.76/ac	0.42/ac	0.19/ac	8.5
Grain str. cut 25 ft	13800	1000 ac	12	3898	0.82/ac	0.40/ac	0.25/ac	8.5
Head w/sunf pans 25 ft	17200	400 ac	20	1813	1.92/ac	1.07/ac	0.32/ac	8.5
Mower-conditioner 14 ft	18700	400 ac	20	4412	1.79/ac	1.30/ac	1.19/ac	5.7
Baler (large round)	19000	400 ac	20	6058	1.62/ac	1.41/ac	2.66/ac	5.0
Rock picker	14300	50 hr	20	4530	0.33/ac	0.28/ac	0.21/ac	29.1
Loader for tractor	4900	150 hr	15	1922	1.35/hr	1.04/hr	2.28/hr	
Grain auger	5000	50 hr	20	700	4.30/hr	2.57/hr	0.62/hr	

