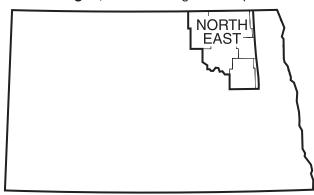


## Projected 2004 Crop Budgets North East North Dakota

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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.

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 = \$438.00

Current cropland rent/acre = \$ 33.35

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

Soil test - recrop:

Nitrogen - 45 lb

Phosphorus - 6 ppm

Potassium -248 ppm

#### Fertilizer prices:

Nitrogen - .24/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.

Soybean RR 25/50 lbs Dry Beans .59/lb Flax 9.00/bu Canola 3.00/lb Oats 3.50/bu Field Peas 5.75/bu .15/lb Millet .28/lb Buckwheat .85/lb Mustard Winter Wheat 4.750/bu Corn silage

Corn silage .80/thou.kern. Alfalfa 2.60/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.

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.

### **Example Sequence of Operations**

Field operations sequence for spring wheat, durum, barley and oats.

OP. NO.	DESCRIPTION	(FEET) WIDTH	(MPH) SPEED	(AC/HR) Fld Cap	(\$/AC) FUEL & LUBE	(\$/AC) EST. REPAIRS
1	Field Cultivate	45	5.0	23.2	\$ 0.64	\$ 0.81
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	Swath	25	5.0	12.1	0.44	0.65
6	Combine	25	4.0	8.5	1.44	2.70
7	Chisel Plow	35	4.5	16.2	0.92	1.04
	Trucks*				0.58	0.70
	Grain auger (pto	o)			0.07	0.01
	Pickup truck allo	cation			0.84	0.45
		Total			6.27	10.25

<sup>\*</sup> Truck costs will vary between crops.

## **Spring Wheat**

Market Yield Market Price	32 \$ 3.37	Profitability Per Acre	Cash Flow Per Acre	Your Figures
MARKET INCOME		107.84	107.84	
DIRECT COSTS -Seed -Herbicides -Fungicides* -Insecticides** -Fertilizer -Crop Insurance -Fuel & Lubricati -Repairs -Drying -Miscellaneous -Operating Intere		10.06 9.90 1.50 0.00 20.28 4.10 6.27 10.25 0.00 1.00 1.90	10.06 9.90 1.50 0.00 20.28 4.10 6.27 10.25 0.00 1.00 1.90	
SUM OF LISTED DIR		65.26	65.26	=========
INDIRECT (FIXED) C -Misc. Overhead -Machinery Depi -Machinery Inve- -Land Taxes -Land Investmen	reciation stment	3.69 12.65 8.02 5.54 27.81	2.80 xxxxxx 19.57 5.54 13.77	
SUM OF LISTED IND	IRECT COSTS	57.71	41.67	
SUM OF ALL LISTED	COSTS	122.97	106.94	
RETURN TO LABOR NET CASH FLOW	& MANAGEMEN	T (15.13) xxxxxx	xxxxxx 0.90	
LISTED COSTS PER -Direct Costs -Indirect Costs -Total Costs	BUDGET UNIT	(bu): 2.04 1.80 3.84	2.04 1.30 3.34	

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

<sup>\*\*</sup>Orange wheat blossom midge insecticide would cost about \$6 per acre plus application.

### **Durum**

Market Yield Market Price	23 \$ 3.78	Profitability Per Acre	Cash Flow Per Acre	Your Figures
MARKET INCOME		86.94	86.94	
DIRECT COSTS -Seed -Herbicides -Fungicides* -Insecticides** -Fertilizer -Crop Insurance -Fuel & Lubricati -Repairs -Drying -Miscellaneous		12.50 9.90 1.50 0.00 11.54 4.70 6.11 10.05 0.00 1.00	12.50 9.90 1.50 0.00 11.54 4.70 6.11 10.05 0.00 1.00	
-Operating Interest		1.72 ====== 59.02	1.72 ====== 59.02	
INDIRECT (FIXED) Con- -Misc. Overhead -Machinery Depri -Machinery Invest- -Land Taxes -Land Investment	reciation stment	3.52 12.28 7.74 5.54 27.81	2.66 xxxxxx 18.85 5.54 13.77	
SUM OF LISTED IND	IRECT COSTS	56.89	40.82	
SUM OF ALL LISTED	COSTS	115.91	99.84	
RETURN TO LABOR NET CASH FLOW	& MANAGEMEN <sup>-</sup>	T (28.97) xxxxxx	xxxxxx (12.90)	
LISTED COSTS PER -Direct Costs -Indirect Costs -Total Costs	BUDGET UNIT (	bu): 2.57 2.47 5.04	2.57 1.77 4.34	

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

<sup>\*\*</sup>Orange wheat blossom midge insecticide would cost about \$6 per acre plus application.

## **Malting Barley**

Market Yield Market Price*	53 \$ 2.26	Profitability Per Acre	Cash Flow Per Acre	Your Figures
MARKET INCOME		119.78	119.78	
DIRECT COSTS -Seed -Herbicides -Fungicides -Insecticides -Fertilizer -Crop Insurance -Fuel & Lubricat -Repairs -Drying -Miscellaneous	ion	9.20 8.70 1.25 0.00 21.36 3.00 6.65 10.71 0.00 1.00	9.20 8.70 1.25 0.00 21.36 3.00 6.65 10.71 0.00 1.00	
-Operating Inter		1.86 ======= 63.71	1.86 ====== 63.71	
INDIRECT (FIXED) C -Misc. Overhead -Machinery Dep -Machinery Inve -Land Taxes -Land Investmen	OSTS reciation stment	4.07 13.52 8.67 5.54 27.81	3.10 xxxxxx 21.27 5.54 13.77	
SUM OF LISTED IND	IRECT COSTS	59.61	43.68	
SUM OF ALL LISTED	COSTS	123.32	107.39	
RETURN TO LABOR NET CASH FLOW	& MANAGEMEN	T (3.54) xxxxxx	xxxxxx 12.39	
LISTED COSTS PER -Direct Costs -Indirect Costs -Total Costs	BUDGET UNIT (	bu): 1.20 1.12 2.33	1.20 0.82 2.03	

<sup>\*</sup>On average, about 60% of production is feed quality. Feed barley price projection is \$1.71.

### **Corn Grain**

Market Yield Market Price	86 \$ 1.94	Profitability Per Acre	Cash Flow Per Acre	Your Figures
MARKET INCOME		166.84	166.84	
DIRECT COSTS -Seed* -Herbicides -Fungicides -Insecticides -Fertilizer -Crop Insurance* -Fuel & Lubrication -Repairs -Drying -Miscellaneous -Operating Interes	on	30.82 11.50 0.00 0.00 32.12 7.60 8.92 14.64 7.70 1.00 3.43	30.82 11.50 0.00 0.00 32.12 7.60 8.92 14.64 7.70 1.00 3.43	
SUM OF LISTED DIR	ECT COSTS	117.73	117.73	
INDIRECT (FIXED) Consider - Misc. Overhead - Machinery Depring - Machinery Investment - Land Investment	eciation stment	5.66 21.28 13.16 5.54 27.81	4.20 xxxxxx 33.70 5.54 13.77	
SUM OF LISTED IND	IRECT COSTS	73.45	57.21	
SUM OF ALL LISTED	COSTS	191.17	174.94	
RETURN TO LABOR NET CASH FLOW	& MANAGEMEN	T (24.33) xxxxxx	xxxxxx (8.10)	
LISTED COSTS PER -Direct Costs -Indirect Costs -Total Costs	BUDGET UNIT	(bu): 1.37 0.85 2.22	1.37 0.67 2.03	

<sup>\*</sup>Roundup (glyphosate) resistant corn.
\*\*Crop insurance is only available by written agreement in some counties.

### **Oil Sunflower**

Market Yield Market Price	1410 \$ 0.11	Profitability Per Acre	Cash Flow Per Acre	Your Figures
MARKET INCOME		155.10	155.10	
DIRECT COSTS -Seed -Herbicides -Fungicides -Insecticides* -Fertilizer -Crop Insurance -Fuel & Lubricat -Repairs -Drying -Miscellaneous		14.08 11.90 0.00 0.00 16.88 8.20 7.06 11.19 3.14 1.00	14.08 11.90 0.00 0.00 16.88 8.20 7.06 11.19 3.14 1.00	
-Operating Inter		2.20 ====== 75.66	2.20 ====== 75.66	========
INDIRECT (FIXED) C -Misc. Overhead -Machinery Dep -Machinery InveLand Taxes -Land Investme	COSTS I reciation estment	4.34 14.92 9.81 5.54 27.81	3.24 xxxxxx 24.55 5.54 13.77	
SUM OF LISTED INC	DIRECT COSTS	62.42	47.10	
SUM OF ALL LISTED	COSTS	138.08	122.76	
RETURN TO LABOR NET CASH FLOW	& MANAGEMEN	T 17.02 xxxxxx	xxxxxx 32.34	
LISTED COSTS PER -Direct Costs -Indirect Costs -Total Costs	BUDGET UNIT (	0.05 0.04 0.10	0.05 0.03 0.09	

<sup>\*</sup>Sunflower beetle insecticide would cost about \$2 plus application. Red seed weevil insecticide would cost about \$6 plus application.

## **Confectionery Sunflower**

Market Yield Market Price	1280 \$ 0.148	Profitability Per Acre	Cash Flow Per Acre	Your Figures
MARKET INCOME		189.44	189.44	
DIRECT COSTS -Seed -Herbicides -Fungicides -Insecticides* -Fertilizer -Crop Insuranc -Fuel & Lubrica -Repairs -Drying -Miscellaneous	ation	19.95 11.90 0.00 6.00 14.33 10.80 7.26 11.33 2.56 5.50	19.95 11.90 0.00 6.00 14.33 10.80 7.26 11.33 2.56 5.50	
-Operating Inte		2.69 ======= 92.32	2.69 ====== 92.32	
INDIRECT (FIXED)  -Misc. Overhea  -Machinery De  -Machinery Inv  -Land Taxes  -Land Investm	COSTS ad epreciation vestment	4.35 15.06 9.99 5.54 27.81	3.24 xxxxxx 24.88 5.54 13.77	
SUM OF LISTED IN	IDIRECT COSTS	62.76	47.43	
SUM OF ALL LISTE	ED COSTS	155.08	139.75	
RETURN TO LABOR NET CASH FLOW	R & MANAGEMEN	Г 34.36 хххххх	xxxxxx 49.69	
LISTED COSTS PE -Direct Costs -Indirect Costs -Total Costs	`	0.07 0.05 0.12	0.07 0.04 0.11	

#### notes:

\*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.

## **S**oybeans

Market Yield Market Price	25.0 \$ 5.12	Profitability Per Acre	Cash Flow Per Acre	Your Figures
MARKET INCOME		128.00	128.00	
DIRECT COSTS -Seed* -Herbicides* -Fungicides -Insecticides -Fertilizer -Crop Insurance -Fuel & Lubricati -Repairs -Drying -Miscellaneous		29.10 9.75 0.00 0.00 6.28 5.40 5.87 10.06 0.00 1.50	29.10 9.75 0.00 0.00 6.28 5.40 5.87 10.06 0.00 1.50	
-Operating Inter	est	2.04	2.04	
SUM OF LISTED DIR	ECT COSTS	69.99	69.99	
INDIRECT (FIXED) C -Misc. Overhead -Machinery Depi -Machinery Inve -Land Taxes -Land Investmen	reciation stment	3.58 12.57 7.85 5.54 27.81	2.70 xxxxxx 19.39 5.54 13.77	
SUM OF LISTED IND	IRECT COSTS	57.34	41.40	
SUM OF ALL LISTED	COSTS	127.33	111.38	
RETURN TO LABOR NET CASH FLOW	& MANAGEMEN	T 0.67	xxxxxx 16.62	
LISTED COSTS PER -Direct Costs -Indirect Costs -Total Costs	BUDGET UNIT (	(bu): 2.80 2.29 5.09	2.80 1.66 4.46	

<sup>\*</sup>Roundup (glyphosate) resistant soybeans. Per acre cost of conventional soybean seed be about \$11.50 for public varieties and \$18 for private varieties, and herbicide costs would be about \$18.

## **Drybeans**

Market Yield Market Price	1380 \$ 0.17	Profitability Per Acre	Cash Flow Per Acre	Your Figures
MARKET INCOME		234.60	234.60	
DIRECT COSTS -Seed -Herbicides -Fungicides* -Insecticides -Fertilizer -Crop Insurance -Fuel & Lubricate -Repairs -Drying -Miscellaneous	ation	29.50 20.42 0.00 0.00 16.60 11.80 7.58 12.40 0.00 1.00	29.50 20.42 0.00 0.00 16.60 11.80 7.58 12.40 0.00 1.00	
-Operating Inte	erest	2.98 ======	2.98	
SUM OF LISTED DI	RECT COSTS	102.28	102.28	
INDIRECT (FIXED) -Misc. Overhea -Machinery De -Machinery Inv -Land Taxes -Land Investme	nd preciation estment	4.45 16.16 10.82 5.54 27.81	3.25 xxxxxx 27.02 5.54 13.77	
SUM OF LISTED IN	DIRECT COSTS	64.77	49.57	
SUM OF ALL LISTE	D COSTS	167.05	151.85	
RETURN TO LABOR NET CASH FLOW	R & MANAGEMEN	T 67.55 xxxxxx	xxxxxx 82.75	
LISTED COSTS PER -Direct Costs -Indirect Costs -Total Costs	R BUDGET UNIT (	0.07 0.05 0.12	0.07 0.04 0.11	

<sup>\*</sup>Fungicide for white mold would cost about \$16 plus application.

### Flax

Market Yield Market Price	22 \$ 5.30	Profitability Per Acre	Cash Flow Per Acre	Your Figures
MARKET INCOME		116.60	116.60	
DIRECT COSTS -Seed -Herbicides -Fungicides -Insecticides -Fertilizer -Crop Insurance -Fuel & Lubricat -Repairs -Drying		7.20 14.71 0.00 0.00 14.40 5.10 6.73 10.84 0.00	7.20 14.71 0.00 0.00 14.40 5.10 6.73 10.84 0.00	
-Miscellaneous -Operating Inter	est	1.00 1.80	1.00 1.80	
SUM OF LISTED DIR		61.78	61.78	
INDIRECT (FIXED) C -Misc. Overhead -Machinery Dep -Machinery Inve -Land Taxes -Land Investment	l reciation stment	3.70 12.99 8.34 5.54 27.81	2.77 xxxxxx 20.20 5.54 13.77	
SUM OF LISTED IND	IRECT COSTS	58.37	42.28	
SUM OF ALL LISTED	COSTS	120.15	104.06	
RETURN TO LABOR NET CASH FLOW	& MANAGEMEN	T (3.55) xxxxxx	xxxxxx 12.54	
LISTED COSTS PER -Direct Costs -Indirect Costs -Total Costs	BUDGET UNIT (	bu): 2.81 2.65 5.46	2.81 1.92 4.73	

### Canola

Market Yield Market Price	1430 \$ 0.094	Profitability Per Acre	Cash Flow Per Acre	Your Figures
MARKET INCOME		134.42	134.42	
DIRECT COSTS -Seed -Herbicides -Fungicides* -Insecticides -Fertilizer** -Crop Insuranc -Fuel & Lubrica -Repairs -Drying	ation	16.50 15.75 0.00 7.00 32.73 4.60 6.21 10.17 0.00	16.50 15.75 0.00 7.00 32.73 4.60 6.21 10.17 0.00	
<ul><li>-Miscellaneous</li><li>-Operating Inte</li></ul>		1.00 2.82	1.00 2.82	
SUM OF LISTED DI		96.78	96.78	
INDIRECT (FIXED) -Misc. Overhea -Machinery De -Machinery Inv -Land Taxes -Land Investme	d preciation estment	3.63 12.51 7.91 5.54 27.81	2.75 xxxxxx 19.30 5.54 13.77	
SUM OF LISTED IN	DIRECT COSTS	57.40	41.35	
SUM OF ALL LISTE	D COSTS	154.17	138.13	
RETURN TO LABOR NET CASH FLOW	R & MANAGEMEN	Γ (19.75) xxxxxx	xxxxxx (3.71)	
LISTED COSTS PER -Direct Costs -Indirect Costs -Total Costs	R BUDGET UNIT (I	0.07 0.04 0.11	0.07 0.03 0.10	

<sup>\*</sup>Fungicide for white mold would cost about \$16 plus application. \*\*Fertilizer cost includes 20 lbs sulfer at \$.26/lb.

### **Oats**

Market Yield Market Price	57 \$ 1.29	Profitability Per Acre	Cash Flow Per Acre	Your Figures
MARKET INCOME		73.53	73.53	
DIRECT COSTS -Seed -Herbicides -Fungicides -Insecticides -Fertilizer -Crop Insurance -Fuel & Lubricat -Repairs -Drying -Miscellaneous		7.00 1.88 0.00 0.00 18.81 3.90 6.72 10.79 0.00 1.00	7.00 1.88 0.00 0.00 18.81 3.90 6.72 10.79 0.00 1.00	
-Operating Inter	est	1.50	1.50	
SUM OF LISTED DIR	RECT COSTS	51.60	51.60	
INDIRECT (FIXED) C -Misc. Overhead -Machinery Dep -Machinery Inve -Land Taxes -Land Investment	l reciation stment	4.14 13.68 8.80 5.54 27.81	3.16 xxxxxx 21.59 5.54 13.77	
SUM OF LISTED IND	DIRECT COSTS	59.97	44.06	
SUM OF ALL LISTED	COSTS	111.57	95.66	
RETURN TO LABOR NET CASH FLOW	& MANAGEMEN	T (38.04) xxxxxx	xxxxxx (22.13)	
LISTED COSTS PER -Direct Costs -Indirect Costs -Total Costs	BUDGET UNIT (	bu): 0.91 1.05 1.96	0.91 0.77 1.68	

### **Field Peas**

Market Yield Market Price*	36 \$ 3.84	Profitability Per Acre	Cash Flow Per Acre	Your Figures
MARKET INCOME		138.24	138.24	
DIRECT COSTS -Seed** -Herbicides -Fungicides -Insecticides -Fertilizer -Crop Insurance -Fuel & Lubricati -Repairs -Drying -Miscellaneous		17.25 14.64 0.00 0.00 6.49 6.80 6.54 11.07 0.00 2.00 1.94	17.25 14.64 0.00 0.00 6.49 6.80 6.54 11.07 0.00 2.00	
-Operating Interests SUM OF LISTED DIR		1.94 ====== 66.73	1.94 ====== 66.73	
INDIRECT (FIXED) C -Misc. Overhead -Machinery Deprilements -Machinery Investments -Land Taxes -Land Investments	reciation stment	3.87 13.94 8.51 5.54 27.81	2.92 xxxxxx 20.84 5.54 13.77	
SUM OF LISTED IND	IRECT COSTS	59.67	43.07	
SUM OF ALL LISTED	COSTS	126.41	109.80	
RETURN TO LABOR NET CASH FLOW	& MANAGEMEN	IT 11.83 xxxxxx	xxxxxx 28.44	
LISTED COSTS PER -Direct Costs -Indirect Costs -Total Costs	BUDGET UNIT	(bu): 1.85 1.66 3.51	1.85 1.20 3.05	

<sup>\*</sup>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 Market Price	1600 \$ 0.06	Profitability Per Acre	Cash Flow Per Acre	Your Figures
MARKET INCOME		96.00	96.00	
DIRECT COSTS -Seed -Herbicides -Fungicides -Insecticides -Fertilizer -Crop Insurance -Fuel & Lubricate -Repairs -Drying -Miscellaneous	ation	3.75 1.50 0.00 0.00 11.48 0.00 6.27 10.25 0.00 1.00	3.75 1.50 0.00 0.00 11.48 0.00 6.27 10.25 0.00 1.00	
-Operating Inte		1.03 ======= 35.27	1.03 ======= 35.27	
INDIRECT (FIXED) -Misc. Overhea -Machinery De -Machinery Inv -Land Taxes -Land Investme	COSTS ad preciation estment	3.69 12.65 8.02 5.54 27.81	2.80 xxxxxx 19.57 5.54 13.77	
SUM OF LISTED IN	DIRECT COSTS	57.71	41.67	
SUM OF ALL LISTE	D COSTS	92.98	76.95	
RETURN TO LABOR NET CASH FLOW	R & MANAGEMEN	T 3.02 xxxxxx	xxxxxx 19.05	
LISTED COSTS PER -Direct Costs -Indirect Costs -Total Costs	R BUDGET UNIT (	0.02 0.04 0.06	0.02 0.03 0.05	

### **Buckwheat**

Market Yield Market Price	950 \$ 0.109	Profitability Per Acre	Cash Flow Per Acre	Your Figures
MARKET INCOME		103.55	103.55	
DIRECT COSTS				
-Seed		14.00	14.00	
-Herbicides		0.00	0.00	
-Fungicides		0.00	0.00	
-Insecticides		0.00	0.00	
-Fertilizer		7.44	7.44	
-Crop Insurance	ce	0.00	0.00	
-Fuel & Lubric	ation	6.55	6.55	
-Repairs		10.41	10.41	
-Drying		0.00	0.00	
-Miscellaneous	3	1.00	1.00	
-Operating Inte		1.18	1.18	
1 0		======	======	
SUM OF LISTED D	IRECT COSTS	40.59	40.59	
INDIRECT (FIXED)	COSTS			
-Misc. Overhéa		3.58	2.69	
-Machinery De	preciation	12.54	XXXXXX	
-Machinery Inv	•	7.98	19.34	
-Land Taxes		5.54	5.54	
-Land Investm	ent	27.81	13.77	
		=======	=======	
SUM OF LISTED IN	IDIRECT COSTS	57.45	41.34	
SUM OF ALL LISTE	ED COSTS	98.03	81.92	
RETURN TO LABOR	R & MANAGEMEN	T 5.52	XXXXXX	
NET CASH FLOW		XXXXXX	21.63	
LISTED COSTS PE	R BUDGET UNIT (	lb) :		
-Direct Costs		0.04	0.04	
-Indirect Costs		0.06	0.04	
-Total Costs		0.10	0.09	

### Yellow Mustard

Market Yield Market Price	950 \$ 0.142	Profitability Per Acre	Cash Flow Per Acre	Your Figures
MARKET INCOME		134.90	134.90	
-Seed -Herbicides -Fungicides -Insecticides -Fertilizer -Crop Insurance -Fuel & Lubrica -Repairs -Drying -Miscellaneous -Operating Inte	tion	10.20 5.95 0.00 0.00 14.66 0.00 5.56 9.28 0.00 1.00 1.40	10.20 5.95 0.00 0.00 14.66 0.00 5.56 9.28 0.00 1.00 1.40	
SUM OF LISTED DII		48.05	48.05	
INDIRECT (FIXED) ( -Misc. Overhea -Machinery Dep -Machinery InvoLand Taxes -Land Investme	d preciation estment	3.22 11.30 6.91 5.54 27.81	2.45 xxxxxx 16.90 5.54 13.77	
SUM OF LISTED IN	DIRECT COSTS	54.79	38.66	
SUM OF ALL LISTE	D COSTS	102.84	86.72	
RETURN TO LABOR NET CASH FLOW	& MANAGEMEN	T 32.06 xxxxxx	xxxxxx 48.18	
LISTED COSTS PER -Direct Costs -Indirect Costs -Total Costs	R BUDGET UNIT (	0.05 0.06 0.11	0.05 0.04 0.09	

### Winter Wheat

Market Yield* Market Price	38 \$ 2.97	Profitability Per Acre	Cash Flow Per Acre	Your Figures
MARKET INCOME		112.86	112.86	
DIRECT COSTS -Seed -Herbicides -Fungicides -Insecticides -Fertilizer -Crop Insurance -Fuel & Lubricat -Repairs -Drying -Miscellaneous	ion	5.70 1.50 0.00 0.00 26.11 4.10 6.38 10.38 0.00 1.00	5.70 1.50 0.00 0.00 26.11 4.10 6.38 10.38 0.00 1.00	
-Operating Inter		1.65	1.65	
SUM OF LISTED DIF	RECT COSTS	56.82	56.82	
INDIRECT (FIXED) C -Misc. Overhead -Machinery Dep -Machinery InveLand Taxes -Land Investment	l reciation estment	3.80 12.90 8.21 5.54 27.81	2.88 xxxxxx 20.06 5.54 13.77	
SUM OF LISTED IND	DIRECT COSTS	58.25	42.25	
SUM OF ALL LISTED	COSTS	115.07	99.07	
RETURN TO LABOR NET CASH FLOW	& MANAGEMEN	T (2.21) xxxxxx	xxxxxx 13.79	
LISTED COSTS PER -Direct Costs -Indirect Costs -Total Costs	BUDGET UNIT (	bu): 1.50 1.53 3.03	1.50 1.11 2.61	

<sup>\*</sup>Yield is per harvested acre, 1996-2002 acreage abandonment averaged 14%.

## **Corn Silage**

Market Yield Market Price	8.4 \$ 18.00	Profitability Per Acre	Cash Flow Per Acre	Your Figures
MARKET INCOME		151.20	151.20	
DIRECT COSTS -Seed -Herbicides -Fungicides -Insecticides -Fertilizer -Crop Insuranc -Fuel & Lubrica -Repairs -Drying -Miscellaneous -Operating Inte	ation *	17.60 15.00 0.00 0.00 24.91 6.20 5.33 8.60 0.00 28.50 3.18	17.60 15.00 0.00 0.00 24.91 6.20 5.33 8.60 0.00 28.50 3.18	
SUM OF LISTED D		109.33	109.33	
INDIRECT (FIXED) -Misc. Overhea -Machinery De -Machinery Inv -Land Taxes -Land Investme	ad preciation estment	2.85 7.94 6.16 5.54 27.81	2.16 xxxxxx 14.74 5.54 13.77	
SUM OF LISTED IN	DIRECT COSTS	50.30	36.21	
SUM OF ALL LISTE	D COSTS	159.63	145.54	
RETURN TO LABOR NET CASH FLOW	R & MANAGEMEN	T (8.43) xxxxxx	xxxxxx 5.66	
LISTED COSTS PE -Direct Costs -Indirect Costs -Total Costs	R BUDGET UNIT (	ton): 13.02 5.99 19.00	13.02 4.31 17.33	

<sup>\*</sup>includes custom harvest and hauling

## Oats Hay Crop and Alfalfa Seeding

Market Yield Market Price	2.0 \$ 36.00	Profitability Per Acre	Cash Flow Per Acre	Your Figures
MARKET INCOME		72.00	72.00	
DIRECT COSTS -Seed -Herbicides -Fungicides -Insecticides -Fertilizer -Crop Insuran -Fuel & Lubric -Repairs -Drying	ation	33.00 0.00 0.00 0.00 17.00 0.00 6.26 11.83 0.00	33.00 0.00 0.00 0.00 17.00 0.00 6.26 11.83 0.00	
<ul><li>-Miscellaneou</li><li>-Operating Int</li></ul>		3.10 2.14	3.10 2.14	
SUM OF LISTED D	DIRECT COSTS	73.32	73.32	
INDIRECT (FIXED) -Misc. Overhe -Machinery De -Machinery In -Land Taxes -Land Investm	ad epreciation vestment	4.63 12.29 9.45 4.23 27.66	3.58 xxxxxx 23.10 4.23 12.67	
SUM OF LISTED II	NDIRECT COSTS	58.26	43.59	
SUM OF ALL LIST	ED COSTS	131.59	116.91	
RETURN TO LABO NET CASH FLOW	R & MANAGEMEN	Г (59.59) xxxxxx	xxxxxx (44.91)	
LISTED COSTS PE -Direct Costs -Indirect Costs -Total Costs	ER BUDGET UNIT (	ton) : 36.66 29.13 65.79	36.66 21.79 58.45	

## Alfalfa (established)

MARKET INCOME       121.00       121.00         DIRECT COSTS       -Seed       0.00       0.00         -Herbicides       0.00       0.00          -Fungicides       0.00       0.00          -Insecticides       0.00       0.00          -Fertilizer       7.31       7.31          -Crop Insurance       0.00       0.00          -Fuel & Lubrication       7.13       7.13	Market Yield Market Price	2.2 \$ 55.00	Profitability Per Acre	Cash Flow Per Acre	Your Figures
DIRECT COSTS         -Seed       0.00       0.00          -Herbicides       0.00       0.00          -Fungicides       0.00       0.00          -Insecticides       0.00       0.00          -Fertilizer       7.31       7.31          -Crop Insurance       0.00       0.00          -Fuel & Lubrication       7.13       7.13	Warket I fiee	ψ 33.00	1 01 71010	1 01 7010	i iguics
-Seed 0.00 0.00	MARKET INCOME		121.00	121.00	
-Seed 0.00 0.00	DIRECT COSTS				
-Fungicides       0.00       0.00         -Insecticides       0.00       0.00         -Fertilizer       7.31       7.31         -Crop Insurance       0.00       0.00         -Fuel & Lubrication       7.13       7.13			0.00	0.00	
-Insecticides       0.00       0.00         -Fertilizer       7.31       7.31         -Crop Insurance       0.00       0.00         -Fuel & Lubrication       7.13       7.13	-Herbicides		0.00	0.00	
-Fertilizer       7.31       7.31         -Crop Insurance       0.00       0.00         -Fuel & Lubrication       7.13       7.13	-Fungicides		0.00	0.00	
-Crop Insurance 0.00 0.00	-Insecticides		0.00	0.00	
-Fuel & Lubrication 7.13 7.13	-Fertilizer		7.31	7.31	
-Fuel & Lubrication 7.13 7.13	-Crop Insurance	ce	0.00	0.00	
Dana's 44.70			7.13	7.13	
-Kepairs 14./8 14./8	-Repairs		14.78	14.78	
-Drying 0.00 0.00	•		0.00	0.00	
-Miscellaneous 3.00 3.00		3	3.00	3.00	
-Operating Interest 0.97 0.97	-Operating Into	erest	0.97	0.97	
	1 0		======	=======	
SUM OF LISTED DIRECT COSTS 33.18 33.18	SUM OF LISTED D	IRECT COSTS	33.18	33.18	
INDIRECT (FIXED) COSTS	INDIRECT (FIXED)	COSTS			
-Misc. Overhead 5.49 4.16			5.49	4.16	
-Machinery Depreciation 15.48 xxxxxx	-Machinery De	preciation	15.48	XXXXXX	
-Machinery Investment 12.05 30.48				30.48	
-Land Taxes 5.54 5.54			5.54		
-Land Investment 27.81 13.77		ent	27.81	13.77	
			======	=======	
SUM OF LISTED INDIRECT COSTS 66.37 53.94	SUM OF LISTED IN	IDIRECT COSTS	66.37	53.94	
SUM OF ALL LISTED COSTS         99.55         87.12	SUM OF ALL LISTE	ED COSTS	99.55	87.12	
RETURN TO LABOR & MANAGEMENT 21.45 xxxxxx	RETURN TO LABO	R & MANAGEMEN	Т 21.45	XXXXXX	
NET CASH FLOW XXXXXXX 33.88	NET CASH FLOW		XXXXXX	33.88	
LISTED COSTS PER BUDGET UNIT (ton):	LISTED COSTS PE	R BUDGET UNIT (	ton) :		
-Direct Costs 15.08 15.08			15.08	15.08	
-Indirect Costs 30.17 24.52	-Indirect Costs	;	30.17	24.52	
-Total Costs 45.25 39.60	-Total Costs		45.25	39.60	

# **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 f	t 9700	1200 ac	20	5589	0.17/ac	0.29/ac	0.13/ac	34.0
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
Bean cutter 6-30	7800	400 ac	20	2233	0.70/ac	0.56/ac	0.43/ac	6.5
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	1200 ac	10	3606	0.55/ac	0.26/ac	0.19/ac	8.5
Grain str. cut 25 ft	13800	400 ac	20	1436	1.55/ac	0.86/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
Soybeans str. cut 25 ft	21300	800 ac	20	1978	1.21/ac	0.65/ac	0.40/ac	8.5
Head w/drybean pickups	21300	400 ac	20	2253	2.38/ac	1.32/ac	0.40/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	