

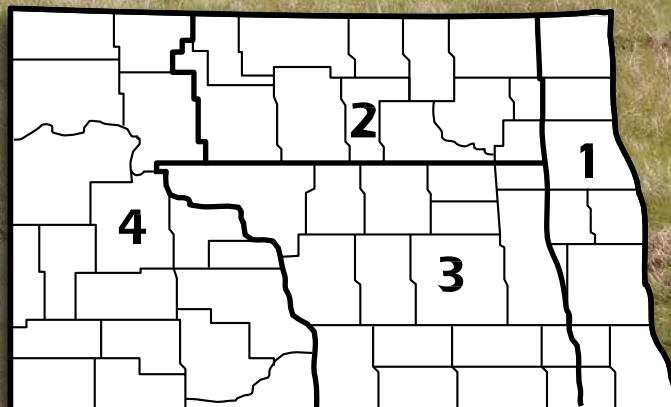
# 2013 ANNUAL REPORT

## Region 2

North Dakota Farm and Ranch  
Business Management Education



### Regional Reporting Areas



[www.ndfarmmanagement.com](http://www.ndfarmmanagement.com)



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# NORTH DAKOTA FARM BUSINESS MANAGEMENT EDUCATION

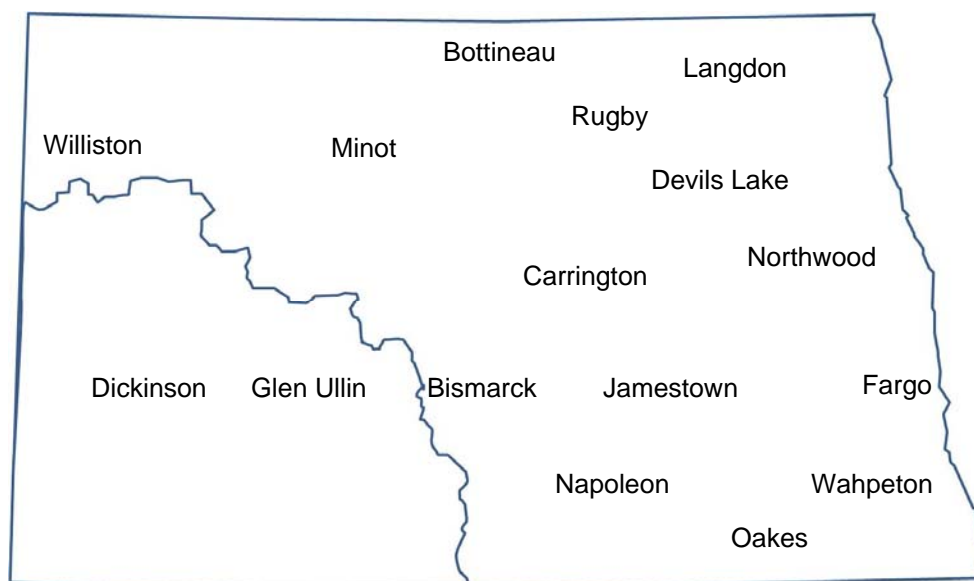
## REGION 2 – NORTH CENTRAL AVERAGES 2013 ANNUAL REPORT

The North Central (Region 2) farm business analyses were submitted by the following instructors represented by their cooperating schools.

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This report was made possible by the farm families who cooperated with their farm management instructors in getting the records for 2013 closed out on a timely basis. The farm management instructors cited above generated the Finpack year-end farm analyses. Andrew Swenson, NDSU Extension Service, databased the Finpack analyses of farms and generated the comparative tables for this report.

Location of all Farm Business Management Education Programs in North Dakota





## 2013 North Central Report

### North Dakota Farm Business Management Education

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## INTRODUCTION

This report summarizes the individual farm records of the specific region or the whole state as identified on the acknowledgement page. The current financial status of farm operators and net returns from each crop and livestock enterprise is reported. In addition to the average of all farms, the averages for the high, middle, and low-income groups are also presented. All participating farm/ranch families are provided a copy of the regional averages report. They can compare their own Finan business analysis to the regional and/or state averages report and study the areas that may need management improvement. A review of the comparative information may reveal how certain aspects of the business or enterprises excel and help answer why they are profitable.

The regional and state averages reports are divided into three major sections; farm operators' reports, crop reports and livestock reports. Explanatory notes precede each section. The first section contains 15 tables with whole farm financial and operator information. The last three tables of this section are financial summaries in which farms are categorized by gross revenue, age of operator and farm type, respectively. The second section provides performance information on crop enterprises. The third section provides performance results on livestock enterprises. Lastly, figures 1 through 10 provide trend information for various measures of finance and/or production.

The 2013 summary reports are based upon data generated by the Finan individual farm analysis completed by farm/ranch families enrolled in the statewide Adult Farm and Ranch Business Management Education program in North Dakota. Instructors pooled the individual business analysis and submitted the combined school data to the FINPACK Center located at North Dakota State University. The FINPACK Center did provide schools with local averages in order to assist instructors with obtaining relevant local management trends.

Farm/ranch families enrolled in the statewide program are encouraged to request assistance from their instructors to determine short-term cash flow and long-term projections. Each instructor has access to FINPACK computer programs, which can be used to generate annual or multi-year (cash flow) farm plans and/or long term alternative projections.

This is the 25th year that the regional averages have been generated in North Dakota based upon the four regions shown in the state map on the cover of this publication. A regional report has been generated and published for Regions 2, 3 and 4 identified on the North Dakota map. Most farms in Region 1 are located within the Red River Valley. Those farms are contained in a combined Minnesota-North Dakota Red River Valley report. The state averages report includes all farms participating in the North Dakota Farm Business Management Education Program that were represented in the regional averages and also those farms which were processed and submitted after the March deadline date. All of these reports may be ordered from Farm Business Management, P.O. Box 6022, Bismarck, ND, 58506-6022 for \$5 per copy. The reports are available online at [www.ndfarmmanagement.com](http://www.ndfarmmanagement.com).

## EXPLANATORY NOTES FOR THE FARM OPERATORS' REPORTS

The tables include the same number of farms, which were all of the farms whose records were judged to be of sufficient quality to be included in the overall report. However, the balance sheets include only sole proprietors. Partnerships and corporations are excluded because some debt is held outside of the business causing potential misinterpretations of the financial statement. The number of farms included in each of the crop tables varies because all farms do not have the same enterprises. Also, some farmers' records were complete enough to be included in the whole-farm tables, but at times, these same farmers' crop records were not complete enough to include in the respective crop and livestock tables.

Rounding of individual items for the report may have caused minor discrepancies with the printed totals which are calculated before rounding.

### Farm Income Statement

This statement is a summary of income, expenses, or resultant profit or loss from farming operations during the calendar year.

The first section of the table lists cash farm income from all sources. There are three possible sources of cash income from crops. The first is income from cash sales. The second is income from crops stored under government loan programs when the loan is treated as income for the year in which the crop was stored. If the crop value has not been entered as income when it was stored, then it would be treated as cash income in the year it was sold. The third is Net Government Sales, which refers to the difference between income credited in the year a crop was stored and the actual cash income received at the time it was sold. There are two categories of cash income from livestock sales. "Raised" steer, hogs, and lambs refer to animals raised from birth to market weight on the farm. "Finished" animals refers to those purchased as feeders and fed to market weight. Government payments are grouped as "Direct, CCP & ACRE pymts;" "LDP payments" which are loan deficiency payments that may be received on production when local prices are below the county loan rate for the crop; "Other government payments" which refers to all other government payments such as disaster payments but not including CRP payments; and CRP payments.

The second section of the income statement lists cash expenses. "Labor" includes only labor hired. "Interest" includes only interest actually paid. No opportunity charges on farm equity capital or unpaid labor are included.

The difference between "Gross Cash Farm Income" and "Total Cash Expense" is the "Net Cash Farm Income." This is net farm income on a cash basis.

The last two sections of the income statement deal with the non-cash changes in the farm business. The "Inventory Changes" and "Depreciation" sections are used to convert the cash income statement (Net Cash Farm Income) derived from the first two sections into an accrual income statement. The final adjustment is for "Gain or loss on capital sales." The bottom line, labeled "Net farm Income," represents the return to the operator's and family's unpaid labor, management, and equity capital (net worth). In other words, it represents the return to all of the resources that are owned by the farm family and hence, not purchased or paid a wage. However, it does not include any debt forgiveness or asset repossessions.

### Inventory Changes

This is the detailed statement of inventory changes that is summarized in the income statement. It includes beginning and ending inventories and the calculated changes.

## Depreciation

This is the detailed statement of depreciation and other capital adjustments that is summarized in the income statement. It includes beginning and ending inventories, and capital sales and purchases.

## Profitability Measures

This table shows profitability when capital assets are valued at cost. Various measures of performance are calculated. In the previous tables no opportunity costs are used. In this table, opportunity costs for labor, capital, and management are used. The measures and their components are described below.

**"Rate of return on assets"** is the "Return on farm assets" divided by "Average farm assets."

**"Rate of return on equity"** is the "Return of farm equity" divided by "Average farm equity."

**"Operating profit margin"** is the "Return on farm assets" divided by "Value of farm production."

**"Asset turnover rate"** is the "Value of farm production" divided by "Average farm assets."

**"Farm interest expense"** is the accrual interest cost, usually it will be different from the cash interest expense.

**"Value of operator's labor and management"** is an opportunity cost for unpaid operator's labor and management that is used in the calculation of several financial performance measures. A value of \$20,000 per full time operator plus 5% of value of farm production is used.

**"Return of farm assets"** is calculated by adding "Farm interest expense" to "Net farm income" and then subtracting the "Value of operator's labor and management."

**"Average farm assets"** is the average of beginning and ending total farm assets.

**"Return on farm equity"** is calculated by subtracting the "Value of operator's labor and management" from "Net farm income."

**"Average farm equity"** is the average of beginning and ending farm net worth.

**"Value of farm production"** is gross cash farm income minus purchased feed and feeder livestock and adjusted for inventory changes in crops, market livestock, accounts receivable and breeding livestock.

## Liquidity & Repayment Capacity Measures

The table shows several measures of liquidity and repayment capacity. Calculation of repayment capacity starts with net farm income from operations and adds back the non-cash expense of depreciation. Personal income is also added. Family living expenses, personal debt payments and income taxes paid are subtracted to determine the capital debt repayment capacity.

## Balance Sheets

The ending balance sheet statements and solvency measures are presented for sole proprietors only. Current assets are valued at market price at the time of the inventory which is December 31. In balance sheet at cost values, intermediate and long-term assets that are depreciable are valued at cost remaining (amount remaining to be depreciated, plus salvage value). Raised breeding livestock is valued at conservative market replacement costs. Land is valued at cost or conservative market value. In balance sheet at market values, the intermediate and long term assets are listed at market value, and deferred income tax liabilities are estimated.

## Statement of Cash Flows

This statement organizes cash inflows and outflows by the following three categories: Operating activities, investing activities, and financing activities.



## Financial Standards Measures

The Farm Financial Standards Task Force recommended the use of these financial measures to evaluate a farm's financial position and financial performance. These measures are grouped by: Liquidity, Solvency, Profitability, Repayment Capacity, and Efficiency.

### Liquidity

Liquidity is the ability of the farm business to meet financial obligations in a timely manner, without disrupting normal business operations.

**Current Ratio:** The current ratio shows the value of current assets relative to current liabilities. It measures the extent current farm assets, if liquidated, would cover liabilities that are due during the next 12 months. The higher the ratio, the safer the short term position.

**Working Capital:** Working capital shows the dollar amount that current assets can or cannot cover current liabilities. It approximates the amount of capital available to purchase crop and livestock inputs and equipment necessary to produce farm products. The amount of working capital considered adequate must be related to the size of the farm business.

**Working Capital to Gross Revenues:** Measures operating capital available against the size of the business.

### Solvency

Solvency is important in evaluating the risk position of the farm and family and in considering future borrowing capacity. Solvency measures the ability of the business to pay off all debts if liquidated.

**Farm Debt To Asset Ratio:** The farm debt to asset ratio measures the financial position or solvency of the farm or ranch by comparing the total liabilities to the total assets. It measures the portion of the farm assets that have debt against them. A higher ratio is considered an indicator of greater financial risk.

**Farm Equity To Asset Ratio:** The farm equity to asset ratio measures the farm equity relative to the value of the farm assets. It measures the proportion of the farm assets financed by the owner's equity whereas the debt to asset ratio measured the proportion of farm assets financed by debt.

**Farm Debt To Equity Ratio:** The farm debt to equity ratio measures the amount of farm debt relative to the amount of farm equity. It measures the amount of debt the farm has for every dollar of equity.

### Profitability

Profitability is the measure of the value of goods produced by the business in relation to the cost of resources used in the production. Profitability calculated on a cost basis does not consider changes in market valuation of capital assets such as machinery and breeding livestock.

**Rate of Return on Assets:** Rate of return on assets is, in effect, the interest rate your farm earned in the past year on all money invested in the business. If assets are valued at market value, the rate of return on investment can be looked at as the "opportunity cost" of investing money in the farm instead of alternative investments. If assets are valued at cost (cost less depreciation), the rate of return represents the actual return on the average dollar invested in the business.

**Rate of Return on Equity:** Rate of return on equity is, in effect, the interest rate your investment in the business earned in the past year. If assets are valued at market value, this return can be compared with returns available if the assets were liquidated and invested in alternative investments. If assets are valued at cost, this represents the actual return to the amount of equity capital you have invested in the farm business.

If your return on assets is higher than your average interest rate, your return on equity will be still higher, reflecting the fact that there are residual returns to equity capital after paying all interest expense. This is positive use of financial leverage. If your return on assets is lower than your average interest rate, your return on equity will be still lower, reflecting the fact that borrowed capital did not earn enough to pay its interest cost. This is negative financial leverage. Profitability becomes a key concern when substantial debt capital is used in the business.

**Operating Profit Margin:** The operating profit margin is a measure of the profit margin from the employment of assets. It measures how effectively you are employing assets relative to the value of output produced. Low prices, high operating expenses, or production problems are all possible causes of a low operating profit margin.

**Net Farm Income:** Net farm income represents the returns to labor, management, and equity capital invested in the business. Without income from other sources, or appreciation of capital asset values, net farm income must cover family living expenses and taxes, or net worth will decrease.

**EBITDA:** This factor stands for: Earnings Before Interest, Taxes, Depreciation and Amortization. This represents a measure of earnings available for debt repayment.

#### **Repayment Capacity**

Repayment capacity shows the borrower's ability to repay term debts (longer than one year) on time. This includes non-farm income, and is therefore not a measure of business performance alone.

**Capital Debt Repayment Capacity:** Measures the amount generated from farm and non-farm sources, to cover debt repayment and capital replacement.

**Capital Debt Repayment Margin:** The amount of money remaining after all operating expenses, taxes, family living costs, and scheduled debt payments have been made. It is the money left, after paying all expenses, which is available for purchasing/financing new machinery, equipment, land or livestock.

**Replacement Margin:** The replacement margin is the amount of income remaining after paying principal and interest on term loans and unfunded (cash) capital purchases.

**Term Debt Coverage Ratio:** The term debt coverage ratio measures the ability of the business to cover all term debt payments. A number less than 100 percent indicates that the business, plus non-farm income, is not generating sufficient cash to meet all of the debt payments, after family living expenses and taxes have been paid. A number greater than 100 indicates the business is generating sufficient cash to pay all term debt obligations with some surplus margin remaining.

**Replacement Margin Coverage Ratio:** This represents the ability to term debt and unfunded capital purchases. A ratio under 1.0 indicated that you did not generate enough income to cover term debt payments and unfunded capital purchases.

#### **Efficiency**

These measures reflect the relationships between expense and income items to revenue and the efficiency of the farm business with regard to the use of cash and capital assets.

**Asset Turnover:** Asset turnover is a measure of how efficiently assets are used in the business. A farm with good operating profit margin and asset turnover will show a strong rate of return on farm assets. If operating profit margin is low, the asset turnover rate must be strong, or vice versa, to maintain the rate of return on assets.

**Operating Expense Ratio:** This ratio indicates the percent of the gross farm income, which is used to pay the operating expenses. Operating expenses do not include interest or depreciation expense.

**Depreciation Expense Ratio:** This ratio indicates the percent of the gross farm income, which is used to cover the depreciation expense.

**Interest Expense Ratio:** This ratio indicates the percent of the gross farm income, which is used to pay farm interest expenses.

**Net Farm Income Ratio:** The ratio indicates the percent of the gross farm income, which remains after all expenses.

## **Crop Production and Marketing Summary**

This table contains three sections. The first section reports averages for total acres owned, crop land by tenure and total pasture acres. The next two sections show average price received and average yields for major crops. These tables are sorted on the basis of "Net farm income."

## **Household and Personal Expenses**

For those farms that keep records, the household and personal expenses are summarized. The farms are grouped in the same ranking as in the Income Statement. Since not all farms keep these records, the number of farms in the low profit and high profit groups may be different. Averages are determined by the number of farms keeping these records. The Statement of Cash Flows presents calculated family living and includes all farms. Income tax paid is also shown in the Statement of Cash Flows and includes all farms.

## **Operator and Labor Information**

This table reports the average for the number of operators per farm, the operator's age, and the number of years farming.

## **Nonfarm Summary**

This table also reports nonfarm income. The figure reported is the average over all farms not just those reporting nonfarm income.

**Farm Income Statement**  
**North Dakota Farm Business Management Education**  
**Region 2 - North Central North Dakota, 2013**  
**(Farms Sorted By Net Farm Income)**

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	162	32	33	33
<b>Cash Farm Income</b>				
Barley	61,405	20,112	34,256	168,160
Beans, Black Turtle	2,140	812	-	1,963
Beans, Garbonzo	146	-	-	-
Beans, Navy	437	-	-	2,145
Beans, Pinto	31,527	8,707	17,099	68,667
Canola	71,670	18,814	78,025	171,391
Corn	49,075	25,208	28,856	96,928
Flax	3,205	383	750	8,116
Hay, Grass	674	57	145	2,344
Hay, Mixed	843	83	1,149	-
Lentils	893	-	-	-
Oats	174	128	619	-
Peas, Field	4,657	161	4,865	7,494
Potatoes	6,110	-	-	-
Soybeans	117,922	79,399	106,740	200,332
Straw	83	-	170	-
Sunflowers	9,707	1,184	912	20,936
Sunflowers, Confectionary	2,277	1,914	1,712	5,108
Wheat, Durum	7,851	687	2,259	8,248
Wheat, Spring	125,427	52,573	114,693	237,310
Wheat, Winter	9,744	4,976	2,616	20,174
Soybeans, Food	656	-	-	-
Wheat, Spring, Organic	93	472	-	-
Miscellaneous crop income	250	24	-	-
Beef Bulls	57	-	182	-
Beef Cow-Calf, Beef Calves	22,337	28,126	29,892	13,870
Beef Replacement Heifers	812	1,010	146	-
Beef Backgrounding	14,937	11,090	29,137	10,512
Beef Finish Yearlings	123	-	-	-
Beef Grazing	1,764	3,039	5,712	-
Sheep, Market Lamb Prod, Mkt Lamb	235	1,188	-	-
Sheep, Market Lamb Prod, Wool	32	162	-	-
Cull breeding livestock	6,562	5,995	7,774	3,986
Misc. livestock income	694	1,934	-	-
Direct, CCP & ACRE pymts	16,722	9,353	15,089	32,143
CRP payments	1,332	1,910	489	1,967
Other government payments	20,956	11,664	11,456	43,663
Custom work income	5,682	3,635	6,141	11,667
Patronage dividends, cash	13,552	5,499	12,608	28,204
Crop insurance income	124,193	72,091	99,248	261,040
Property insurance income	2,330	2,085	1,022	4,121
Sale of resale items	283	-	-	-
Other farm income	12,521	8,696	7,593	21,865
Gross Cash Farm Income	752,096	383,170	621,355	1,452,354

**Farm Income Statement (Continued)**  
**North Dakota Farm Business Management Education**  
**Region 2 - North Central North Dakota, 2013**  
**(Farms Sorted By Net Farm Income)**

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	162	32	33	33
<b>Cash Farm Expense</b>				
Seed	55,567	34,285	49,724	96,995
Fertilizer	81,142	41,400	70,828	149,871
Crop chemicals	55,367	29,038	35,591	109,973
Crop insurance	35,526	15,847	28,841	68,777
Drying expense	679	158	303	1,865
Storage	282	38	154	786
Irrigation energy	108	-	-	-
Crop marketing	281	90	225	561
Crop miscellaneous	740	147	408	1,101
Consultants	73	-	-	359
Feeder livestock purchase	4,446	8,108	9,638	844
Purchased feed	6,846	9,444	9,717	2,108
Breeding fees	69	41	170	-
Veterinary	1,569	2,335	1,760	726
Supplies	1,524	1,665	1,620	1,121
Livestock leases	84	-	191	-
Livestock marketing	295	355	485	230
Interest	23,937	16,225	23,069	43,237
CCC buyback	2,461	-	4,410	3,263
Fuel & oil	38,309	22,936	39,105	64,062
Repairs	49,191	35,442	41,412	79,493
Custom hire	12,203	6,691	9,327	18,235
Hired labor	14,202	7,808	8,672	29,303
Land rent	60,280	32,201	64,771	104,143
Machinery leases	6,308	1,925	7,987	12,292
Building leases	326	-	569	948
Real estate taxes	4,282	2,554	2,592	8,199
Farm insurance	8,099	7,238	5,941	14,240
Utilities	6,468	5,556	5,176	10,197
Dues & professional fees	2,127	1,600	1,442	3,753
Miscellaneous	4,813	4,682	2,975	6,449
Total cash expense	477,606	287,809	427,103	833,132
Net cash farm income	274,490	95,361	194,252	619,222
<b>Inventory Changes</b>				
Prepays and supplies	-4,261	-11,800	2,672	-23,887
Accounts receivable	-9,803	-24,350	2,242	4,603
Hedging accounts	471	-149	-90	1,853
Other current assets	4,268	5,107	1,523	5,684
Crops and feed	-64,097	-32,841	-58,137	-114,115
Market livestock	3,039	7,347	-661	2,497
Breeding livestock	748	-441	2,878	1,892
Other assets	1,913	954	962	5,454
Accounts payable	-1,028	-1,032	-3,133	353
Accrued interest	21	-2,893	1,263	4,810
Total inventory change	-68,728	-60,097	-50,480	-110,856
Net operating profit	205,762	35,264	143,772	508,366
<b>Depreciation</b>				
Machinery and equipment	-30,632	-18,784	-17,711	-61,742
Titled vehicles	-3,792	-3,623	-1,837	-6,665
Buildings and improvements	-3,507	-1,486	-1,146	-8,017
Total depreciation	-37,931	-23,893	-20,694	-76,424
Net farm income from operations	167,831	11,371	123,078	431,942
Gain or loss on capital sales	1,940	249	-179	3,664
Net farm income	169,771	11,620	122,900	435,606

**Inventory Changes**  
**North Dakota Farm Business Management Education**  
**Region 2 - North Central North Dakota, 2013**  
**(Farms Sorted By Net Farm Income)**

	<u>Avg. Of All Farms</u>	<u>Low20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	162	32	33	33
Net cash farm income	274,490	95,361	194,252	619,222
<b>Crops and Feed</b>				
Ending inventory	359,271	133,323	226,672	875,518
Beginning inventory	423,368	166,163	284,809	989,632
Inventory change	-64,097	-32,841	-58,137	-114,115
<b>Market Livestock</b>				
Ending inventory	32,698	36,585	42,909	25,021
Beginning inventory	29,659	29,239	43,570	22,524
Inventory change	3,039	7,347	-661	2,497
<b>Accts Receivable</b>				
Ending inventory	14,277	16,990	13,100	16,633
Beginning inventory	24,080	41,340	10,858	12,029
Inventory change	-9,803	-24,350	2,242	4,603
<b>Prepaid Expenses and Supplies</b>				
Ending inventory	57,019	14,657	35,841	134,010
Beginning inventory	61,280	26,458	33,169	157,897
Inventory change	-4,261	-11,800	2,672	-23,887
<b>Hedging Activities</b>				
Ending inventory	2,698	89	98	5,810
Withdrawals	582	-	738	-
Beginning inventory	2,407	83	320	3,385
Deposits	401	156	606	573
Gain or loss	471	-149	-90	1,853
<b>Other Current Assets</b>				
Ending inventory	5,214	5,763	2,105	7,117
Beginning inventory	946	656	582	1,433
Inventory change	4,268	5,107	1,523	5,684
<b>Breeding Livestock</b>				
Ending inventory	57,457	74,988	70,986	35,580
Capital sales	2,485	3,398	5,219	89
Beginning inventory	51,111	65,657	62,628	30,940
Capital purchases	8,083	13,170	10,699	2,837
Depreciation, capital adjust	748	-441	2,878	1,892
<b>Other Capital Assets</b>				
Ending inventory	58,192	14,525	38,432	133,860
Capital sales	2,415	364	4,121	5,352
Beginning inventory	52,306	13,442	33,309	121,918
Capital purchases	6,388	492	8,281	11,839
Depreciation, capital adjust	1,913	954	962	5,454
<b>Accounts Payable</b>				
Beginning inventory	10,122	7,270	13,585	16,176
Ending inventory	11,150	8,302	16,718	15,823
Inventory change	-1,028	-1,032	-3,133	353
<b>Accrued Interest</b>				
Beginning inventory	11,906	8,061	11,598	22,223
Ending inventory	11,885	10,954	10,335	17,413
Inventory change	21	-2,893	1,263	4,810
Total inventory change	-68,728	-60,097	-50,480	-110,856
Net operating profit	205,762	35,264	143,772	508,366



**Depreciation**  
**North Dakota Farm Business Management Education**  
**Region 2 - North Central North Dakota, 2013**  
**(Farms Sorted By Net Farm Income)**

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	162	32	33	33
Net operating profit	205,762	35,264	143,772	508,366
<b>Machinery and Equipment</b>				
Ending inventory	661,301	317,116	416,197	1,474,384
Capital sales	19,626	3,529	5,170	53,565
Beginning inventory	553,684	261,502	341,253	1,244,567
Capital purchases	157,875	77,926	97,825	345,124
Depreciation, capital adjust.	-30,632	-18,784	-17,711	-61,742
<b>Titled Vehicles</b>				
Ending inventory	48,283	38,187	38,500	70,140
Capital sales	690	178	638	15
Beginning inventory	44,005	36,138	34,108	71,398
Capital purchases	8,760	5,850	6,868	5,423
Depreciation, capital adjust.	-3,792	-3,623	-1,837	-6,665
<b>Buildings and Improvements</b>				
Ending inventory	111,796	52,945	43,813	261,703
Capital sales	913	-	-	4,482
Beginning inventory	97,238	39,776	42,381	242,319
Capital purchases	18,978	14,655	2,578	31,884
Depreciation, capital adjust.	-3,507	-1,486	-1,146	-8,017
Total depreciation, capital adj.	-37,931	-23,893	-20,694	-76,424
Net farm income from operations	167,831	11,371	123,078	431,942
Gain or loss on capital sales	1,940	249	-179	3,664
Net farm income	169,771	11,620	122,900	435,606

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**Profitability Measures**  
**North Dakota Farm Business Management Education**  
**Region 2 - North Central North Dakota, 2013**  
**(Farms Sorted By Net Farm Income)**

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	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	162	32	33	33
<b>Profitability (assets valued at cost)</b>				
Net farm income from operations	167,831	11,371	123,078	431,942
Rate of return on assets	7.5 %	-0.2 %	8.1 %	9.7 %
Rate of return on equity	9.4 %	-3.9 %	11.4 %	12.1 %
Operating profit margin	20.5 %	-0.5 %	17.7 %	28.0 %
Asset turnover rate	36.7 %	33.2 %	46.0 %	34.8 %
Farm interest expense	23,916	19,117	21,806	38,427
Value of operator lbr and mgmt.	53,614	31,934	47,747	92,319
Return on farm assets	138,133	-1,445	97,137	378,050
Average farm assets	1,832,730	951,541	1,193,112	3,886,345
Return on farm equity	114,216	-20,562	75,331	339,623
Average farm equity	1,216,074	525,616	662,230	2,799,328
Value of farm production	673,010	315,807	549,196	1,351,586

**Liquidity & Repayment Capacity Measures**  
**North Dakota Farm Business Management Education**  
**Region 2 - North Central North Dakota, 2013**  
**(Farms Sorted By Net Farm Income)**

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	162	32	33	33
<b>Liquidity</b>				
Current ratio	2.18	1.33	1.59	2.71
Working capital	299,318	62,051	131,456	798,278
Working capital to gross inc	44.9 %	18.6 %	24.5 %	59.8 %
Current assets	553,102	248,408	355,184	1,266,403
Current liabilities	253,785	186,357	223,728	468,125
Gross revenues (accrual)	665,998	333,359	535,610	1,334,724
<b>Repayment capacity</b>				
Net farm income from operations	167,831	11,371	123,078	431,942
Depreciation	37,931	23,893	20,694	76,424
Personal income	32,255	29,024	36,208	10,292
Family living/owner withdrawals	-74,658	-43,764	-81,662	-103,155
Payments on personal debt	-5,226	-2,950	-7,410	-5,824
Income taxes paid	-29,977	-8,729	-15,457	-70,030
Interest on term debt	16,342	9,792	15,873	30,057
Capital debt repayment capacity	144,497	18,636	91,325	369,706
Scheduled term debt payments	-78,616	-47,765	-66,759	-150,065
Capital debt repayment margin	65,881	-29,128	24,566	219,641
Cash replacement allowance	-20,488	-8,739	-4,433	-52,294
Replacement margin	45,393	-37,867	20,133	167,347
Term debt coverage ratio	1.84	0.39	1.37	2.46
Replacement coverage ratio	1.46	0.33	1.28	1.83

**Balance Sheet at Cost Values**  
**North Dakota Farm Business Management Education**  
**Region 2 - North Central North Dakota, 2013**  
**(Farms Sorted By Net Farm Income)**

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	156	32	30	32
<b>Assets</b>				
Current Farm Assets				
Cash and checking balance	88,482	41,001	59,262	205,136
Prepaid expenses & supplies	55,164	14,657	26,590	132,250
Growing crops	4,489	5,750	1,847	6,269
Accounts receivable	13,161	16,990	14,410	12,784
Hedging accounts	1,858	89	107	5,355
Crops held for sale or feed	353,782	133,323	206,768	867,101
Crops under government loan	2,401	-	-	11,704
Market livestock held for sale	33,763	36,585	46,199	25,803
Other current assets	3	13	-	-
Total current farm assets	553,102	248,408	355,184	1,266,403
Intermediate Farm Assets				
Breeding livestock	59,394	74,988	76,664	36,692
Machinery and equipment	658,425	317,116	408,201	1,478,836
Titled vehicles	47,791	38,187	42,350	64,813
Other intermediate assets	32,127	2,941	30,539	75,927
Total intermediate farm assets	797,736	433,232	557,754	1,656,268
Long Term Farm Assets				
Farm land	392,749	236,463	261,179	741,022
Buildings and improvements	111,772	52,945	45,928	265,259
Other long-term assets	25,124	11,583	7,778	53,095
Total long-term farm assets	529,646	300,992	314,886	1,059,377
Total Farm Assets	1,880,484	982,632	1,227,825	3,982,047
Total Nonfarm Assets	262,883	195,315	179,422	486,684
Total Assets	2,143,367	1,177,947	1,407,247	4,468,731
<b>Liabilities</b>				
Current Farm Liabilities				
Accrued interest	11,722	10,954	11,095	16,750
Accounts payable	8,175	8,302	4,166	15,722
Current notes	159,149	122,068	148,234	289,865
Government crop loans	955	-	-	4,654
Principal due on term debt	73,783	45,034	60,233	141,134
Total current farm liabilities	253,785	186,357	223,728	468,125
Total intermediate farm liabs	182,912	133,560	168,497	303,799
Total long term farm liabilities	205,105	148,499	169,251	325,824
Total farm liabilities	641,802	468,417	561,476	1,097,747
Total nonfarm liabilities	62,188	46,407	67,838	108,492
Total liabilities	703,989	514,824	629,314	1,206,239
Net worth (farm and nonfarm)	1,439,378	663,123	777,933	3,262,491
Net worth change	111,142	-4,679	63,620	322,243
Percent net worth change	8 %	-1 %	9 %	11 %
<b>Ratio Analysis</b>				
Current farm liabilities / assets	46 %	75 %	63 %	37 %
Intermediate farm liab. / assets	23 %	31 %	30 %	18 %
Long term farm liab. / assets	39 %	49 %	54 %	31 %
Total debt to asset ratio	33 %	44 %	45 %	27 %

**Statement Of Cash Flows**  
**North Dakota Farm Business Management Education**  
**Region 2 - North Central North Dakota, 2013**  
**(Farms Sorted By Net Farm Income)**

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	162	32	33	33
Beginning cash (farm & nonfarm)	90,677	48,468	48,902	191,556
<b>Cash Provided By Operating Activities</b>				
Gross cash farm income	752,096	383,170	621,355	1,452,354
Total cash farm expense	-477,606	-287,809	-427,103	-833,132
Net cash from hedging transactions	181	-156	132	-573
Cash provided by operating	274,671	95,205	194,384	618,649
<b>Cash Provided By Investing Activities</b>				
Sale of breeding livestock	2,507	3,400	5,216	166
Sale of machinery & equipment	19,449	3,698	4,987	54,126
Sale of titled vehicles	711	234	645	15
Sale of farm land	8,841	-	-	27,322
Sale of farm buildings	913	-	-	4,482
Sale of other farm assets	2,419	385	4,121	5,352
Sale of nonfarm assets	4,637	1,261	3,251	2,420
Purchase of breeding livestock	-8,083	-13,170	-10,699	-2,837
Purchase of machinery & equip.	-157,875	-77,926	-97,825	-345,124
Purchase of titled vehicles	-8,760	-5,850	-6,868	-5,423
Purchase of farm land	-55,236	-25,621	-27,187	-120,750
Purchase of farm buildings	-18,978	-14,655	-2,578	-31,884
Purchase of other farm assets	-6,388	-492	-8,281	-11,839
Purchase of nonfarm assets	-45,778	-41,466	-27,681	-97,350
Cash provided by investing	-261,621	-170,200	-162,900	-521,325
<b>Cash Provided By Financing Activities</b>				
Money borrowed	556,542	378,921	458,253	994,814
Principal payments	-493,750	-272,017	-422,840	-924,835
Personal income	32,255	29,024	36,208	10,292
Family living/owner withdrawals	-74,658	-43,764	-81,662	-103,155
Income and social security tax	-28,657	-8,407	-14,729	-68,818
Capital contributions	-	-	-	-
Capital distributions	-	-	-	-
Dividends paid	-	-	-	-
Cash gifts and inheritances	4,112	212	570	12,583
Gifts given	-738	-100	-209	-3,015
Other cash flows	-	-	-	-
Cash provided by financing	-4,895	83,870	-24,409	-82,135
Net change in cash balance	8,156	8,875	7,076	15,190
Ending cash (farm & nonfarm)	98,833	57,343	55,978	206,747

**Financial Standards Measures**  
**North Dakota Farm Business Management Education**  
**Region 2 - North Central North Dakota, 2013**  
**(Farms Sorted By Net Farm Income)**

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	162	32	33	33
<b>Liquidity</b>				
Current ratio	2.18	1.33	1.59	2.71
Working capital	299,318	62,051	131,456	798,278
Working capital to gross inc	44.9 %	18.6 %	24.5 %	59.8 %
<b>Solvency (cost)</b>				
Farm debt to asset ratio	34 %	48 %	46 %	28 %
Farm equity to asset ratio	66 %	52 %	54 %	72 %
Farm debt to equity ratio	0.52	0.91	0.84	0.38
<b>Profitability (cost)</b>				
Rate of return on farm assets	7.5 %	-0.2 %	8.1 %	9.7 %
Rate of return on farm equity	9.4 %	-3.9 %	11.4 %	12.1 %
Operating profit margin	20.5 %	-0.5 %	17.7 %	28.0 %
Net farm income	169,771	11,620	122,900	435,606
EBITDA	229,678	54,381	165,579	546,793
<b>Repayment Capacity</b>				
Capital debt repayment capacity	144,497	18,636	91,325	369,706
Capital debt repayment margin	65,881	-29,128	24,566	219,641
Replacement margin	45,393	-37,867	20,133	167,347
Term debt coverage ratio	1.84	0.39	1.37	2.46
Replacement coverage ratio	1.46	0.33	1.28	1.83
<b>Efficiency</b>				
Asset turnover rate (cost)	36.7 %	33.2 %	46.0 %	34.8 %
Operating expense ratio	66.4 %	83.7 %	70.9 %	59.6 %
Depreciation expense ratio	5.5 %	7.2 %	3.6 %	5.6 %
Interest expense ratio	3.5 %	5.7 %	3.8 %	2.8 %
Net farm income ratio	24.8 %	3.5 %	21.6 %	32.2 %



**Crop Production and Marketing Summary**  
**North Dakota Farm Business Management Education**  
**Region 2 - North Central North Dakota, 2013**  
**(Farms Sorted By Net Farm Income)**

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	162	32	33	33
<b>Acreage Summary</b>				
Total acres owned	887	803	557	1,392
Total crop acres	2,010	1,155	1,762	3,663
Crop acres owned	575	335	303	1,198
Crop acres cash rented	1,217	713	1,376	2,060
Crop acres share rented	218	108	82	405
Total pasture acres	368	443	520	280
Percent crop acres owned	29 %	29 %	17 %	33 %
<b>Average Price Received (Cash Sales Only)</b>				
Wheat, Spring per bushel	7.26	7.34	7.07	7.45
Soybeans per bushel	13.09	12.99	13.11	13.02
Barley per bushel	6.35	6.25	6.15	6.58
Canola per cwt	25.77	26.04	25.78	25.64
Corn per bushel	5.78	6.00	6.05	5.63
Beans, Pinto per cwt	34.64	-	-	34.95
Wheat, Winter per bushel	7.31	-	-	7.03
Sunflowers per cwt	25.87	-	-	24.80
Wheat, Durum per bushel	7.30	-	-	7.72
Flax per bushel	14.23	-	-	-
Hay, Mixed per ton	67.39	-	-	-
Sunflowers, Confectionary per cwt	31.36	-	-	-
Oats per bushel	3.42	-	-	-
<b>Average Yield Per Acre</b>				
Wheat, Spring (bushel)	59.27	47.52	57.59	62.42
Soybeans (bushel)	34.15	31.83	28.10	36.22
Pasture (aum)	1.02	1.06	0.921	0.921
Canola (cwt)	19.89	13.55	18.95	21.72
Barley (bushel)	72.90	66.30	57.42	76.27
Corn (bushel)	120.13	112.15	109.43	118.92
Hay, Grass (ton)	1.14	1.23	1.11	1.07
Hay, Alfalfa (ton)	1.85	1.60	-	2.34
Beans, Pinto (cwt)	17.79	-	-	19.58
Hay, Mixed Alfalfa/Grass (ton)	1.54	1.50	1.69	-
Wheat, Durum (bushel)	44.41	-	-	-
Sunflowers (cwt)	18.77	-	-	19.07
Peas, Field (bushel)	35.22	-	-	53.66
Corn Silage (ton)	16.76	-	15.64	-
Hay, Small Grain (ton)	2.39	-	-	-
Oats (bushel)	79.57	-	-	-

**Household and Personal Expenses**  
**North Dakota Farm Business Management Education**  
**Region 2 - North Central North Dakota, 2013**  
**(Farms Sorted By Net Farm Income)**

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	112	18	21	26
Average family size	3.0	3.0	3.1	3.2
Family Living Expenses				
Food and meals expense	9,536	8,102	8,389	11,759
Medical care	5,407	4,936	6,235	5,857
Health insurance	8,195	3,256	8,672	10,489
Cash donations	2,299	1,713	628	4,284
Household supplies	7,824	5,976	9,582	9,641
Clothing	2,810	1,739	2,288	4,635
Personal care	8,074	5,658	10,512	9,621
Child / Dependent care	704	298	1,559	241
Alimony and child support	161	1,000	-	-
Gifts	2,260	1,444	1,055	4,077
Education	2,582	1,322	1,547	3,233
Recreation	8,324	5,891	10,330	9,473
Utilities (household share)	4,221	3,730	3,876	5,115
Personal vehicle operating exp	4,839	3,170	4,711	4,671
Household real estate taxes	190	-	54	465
Dwelling rent	245	254	261	-
Household repairs	3,056	1,203	1,536	3,822
Personal interest	1,491	1,040	1,918	1,634
Disability / Long term care ins	149	244	-	228
Life insurance payments	2,609	2,055	1,622	5,132
Personal property insurance	157	73	56	233
Miscellaneous	3,880	1,388	2,963	4,511
Total cash family living expense	79,013	54,494	77,797	99,121
Family living from the farm	814	2,867	95	193
Total family living	79,827	57,361	77,892	99,314
Other Nonfarm Expenditures				
Income taxes	31,934	10,897	14,407	67,879
Furnishing & appliance purchases	631	147	606	1,642
Nonfarm vehicle purchases	6,383	10,777	10,834	4,945
Nonfarm real estate purchases	28,805	27,307	5,744	75,369
Other nonfarm capital purchases	8,289	2,692	4,721	27,083
Nonfarm savings & investments	7,234	-3,126	4,022	14,592
Total other nonfarm expenditures	83,277	48,694	40,333	191,510
Total cash family living investment & nonfarm capital purch	162,289	103,188	118,130	290,631

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**Operator and Labor Information**  
**North Dakota Farm Business Management Education**  
**Region 2 - North Central North Dakota, 2013**  
**(Farms Sorted By Net Farm Income)**

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	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	162	32	33	33
<b>Operator Information</b>				
Average number of operators	1.0	1.0	1.1	1.1
Average age of operators	43.8	41.7	36.7	51.8
Average number of years farming	20.3	18.0	13.5	28.8
<b>Results Per Operator</b>				
Working capital	290,596	62,051	134,076	731,275
Total assets (cost)	2,065,535	1,177,947	1,280,228	4,114,831
Total liabilities	673,344	514,824	562,350	1,114,419
Net worth (cost)	1,392,191	663,123	717,878	3,000,411
Gross farm income	652,100	333,359	521,171	1,241,661
Total farm expense	492,167	321,988	408,349	845,714
Net farm income from operations	159,933	11,371	112,822	395,947
Net nonfarm income	30,737	29,024	33,190	9,434
Family living & tax withdrawals	99,712	52,493	89,025	158,753
Total acres owned	845.3	802.7	510.5	1,276.2
Total crop acres	1,915.2	1,155.2	1,615.0	3,357.9
Crop acres owned	548.3	334.6	277.7	1,097.8
Crop acres cash rented	1,159.4	712.6	1,261.8	1,888.6
Crop acres share rented	207.5	108.1	75.6	371.6
Total pasture acres	350.3	442.9	477.0	256.6
<b>Labor Analysis</b>				
Number of farms	162	32	33	33
Total unpaid labor hours	2,150	1,657	2,247	2,559
Total hired labor hours	801	395	545	1,685
Total labor hours per farm	2,951	2,052	2,792	4,244
Unpaid hours per operator	2,049	1,657	2,060	2,346

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**Nonfarm Summary**  
**North Dakota Farm Business Management Education**  
**Region 2 - North Central North Dakota, 2013**  
**(Farms Sorted By Net Farm Income)**

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	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	162	32	33	33
<b>Nonfarm Income</b>				
Personal wages & salary	21,221	22,000	29,210	13,273
Net nonfarm business income	65	1,309	2,562	-17,936
Personal rental income	1,713	981	233	2,761
Personal interest income	458	195	82	1,557
Personal cash dividends	1,310	8	-	6,154
Tax refunds	1,421	790	2,445	549
Other nonfarm income	6,067	3,741	1,675	3,933
Total nonfarm income	32,255	29,024	36,208	10,292
Gifts and inheritances	4,112	212	570	12,583

**Financial Summary**  
**North Dakota Farm Business Management Education**  
**Region 2 - North Central North Dakota, 2013**  
**(Farms Sorted By Gross Farm Income)**

	<u>Avg. Of All Farms</u>	<u>Less than 100,000</u>	<u>100,001 - 250,000</u>	<u>250,001 - 500,000</u>	<u>500,001 - 1,000,000</u>	<u>1,000,001- 2,000,000</u>	<u>Over 2,000,000</u>
Number of farms	162	13	16	33	57	37	6
<b>Income Statement</b>							
Gross cash farm income	752,096	56,621	204,744	409,429	708,976	1,343,820	2,363,911
Total cash farm expense	477,606	47,853	137,231	278,730	455,524	851,536	1,314,113
Net cash farm income	274,490	8,768	67,513	130,699	253,452	492,284	1,049,799
Inventory change	-68,728	11,221	16,151	-20,641	-81,629	-126,769	-252,303
Depreciation	-37,931	-4,154	-9,908	-15,806	-34,648	-77,789	-92,924
Net farm income from operations	167,831	15,835	73,757	94,252	137,175	287,726	704,572
Gain or loss on capital sales	1,940	17,840	192	-201	66	-364	15,952
Average net farm income	169,771	33,675	73,949	94,052	137,240	287,361	720,524
Median net farm income	122,260	20,693	68,406	94,303	137,323	270,835	586,537
<b>Profitability (cost)</b>							
Rate of return on assets	7.5 %	2.4 %	8.7 %	8.8 %	6.4 %	7.6 %	10.0 %
Rate of return on equity	9.4 %	1.3 %	12.1 %	11.7 %	7.7 %	9.4 %	12.3 %
Operating profit margin	20.5 %	13.4 %	27.3 %	20.0 %	17.8 %	20.4 %	27.4 %
Asset turnover rate	36.7 %	17.7 %	31.7 %	43.9 %	35.9 %	37.0 %	36.4 %
<b>Liquidity &amp; Repayment (end of year)</b>							
Current assets	553,102	59,876	187,057	259,525	555,783	933,258	2,329,896
Current liabilities	253,785	31,322	73,825	118,258	263,158	481,780	649,065
Current ratio	2.18	1.91	2.53	2.19	2.11	1.94	3.59
Working capital	299,318	28,553	113,232	141,268	292,625	451,478	1,680,831
Working capital to gross inc	44.9 %	41.0 %	50.4 %	37.1 %	46.4 %	37.6 %	74.3 %
Term debt coverage ratio	1.84	1.75	2.07	2.20	1.50	1.76	2.88
Replacement coverage ratio	1.46	1.44	1.80	1.79	1.21	1.40	2.03
<b>Solvency (end of year at cost)</b>							
Number of sole proprietors	156	13	16	33	55	34	5
Total farm assets	1,880,484	385,378	707,774	855,633	1,802,654	3,462,423	6,383,406
Total farm liabilities	641,802	186,536	290,523	332,555	650,928	1,143,478	1,478,824
Total assets	2,143,367	525,638	898,922	1,044,680	2,026,360	3,886,269	7,018,358
Total liabilities	703,989	206,444	331,728	371,892	711,913	1,250,453	1,577,577
Net worth	1,439,378	319,194	567,194	672,789	1,314,447	2,635,816	5,440,782
Net worth change	111,142	42,600	83,769	64,766	75,530	175,915	634,314
Farm debt to asset ratio	34 %	48 %	41 %	39 %	36 %	33 %	23 %
Total debt to asset ratio	33 %	39 %	37 %	36 %	35 %	32 %	22 %
<b>Nonfarm Information</b>							
Net nonfarm income	32,255	43,539	30,000	41,533	35,730	18,357	15,476
Farms reporting living expenses	112	5	13	19	41	30	4
Total family living expense	79,827	54,915	43,359	62,932	82,255	101,130	-
<b>Crop Acres</b>							
Total acres owned	887	419	1,073	525	823	1,285	1,549
Total crop acres	2,010	256	802	1,263	1,956	3,297	5,708
Total crop acres owned	575	143	316	253	580	946	1,649
Total crop acres cash rented	1,217	87	323	731	1,203	2,010	3,957
Total crop acres share rented	218	25	163	280	173	341	102

**Financial Summary**  
**North Dakota Farm Business Management Education**  
**Region 2 - North Central North Dakota, 2013**  
**(Farms Sorted By Age Of Operator)**

	<u>Avg. Of All Farms</u>	<u>Less Than 31</u>	<u>31 - 40</u>	<u>41 - 50</u>	<u>51 - 60</u>	<u>Over 60</u>
Number of farms	162	32	29	38	45	18
<b>Income Statement</b>						
Gross cash farm income	752,096	405,028	806,768	854,290	908,917	673,231
Total cash farm expense	477,606	298,540	503,532	560,100	565,309	360,769
Net cash farm income	274,490	106,487	303,236	294,190	343,608	312,462
Inventory change	-68,728	9,956	-86,069	-88,397	-74,523	-124,664
Depreciation	-37,931	-14,865	-42,086	-43,316	-49,141	-32,849
Net farm income from operations	167,831	101,578	175,081	162,477	219,944	154,949
Gain or loss on capital sales	1,940	-1,535	3,727	17	5,580	202
Average net farm income	169,771	100,043	178,808	162,494	225,524	155,151
Median net farm income	122,260	74,382	124,639	138,502	177,960	160,228
<b>Profitability (cost)</b>						
Rate of return on assets	7.5 %	11.1 %	9.0 %	6.7 %	7.3 %	6.0 %
Rate of return on equity	9.4 %	19.3 %	12.6 %	8.2 %	8.7 %	6.6 %
Operating profit margin	20.5 %	20.1 %	20.1 %	18.0 %	22.6 %	21.6 %
Asset turnover rate	36.7 %	54.9 %	44.8 %	37.0 %	32.2 %	27.9 %
<b>Liquidity &amp; Repayment (end of year)</b>						
Current assets	553,102	250,029	489,342	571,952	810,820	489,780
Current liabilities	253,785	157,277	250,919	322,725	332,291	84,744
Current ratio	2.18	1.59	1.95	1.77	2.44	5.78
Working capital	299,318	92,752	238,424	249,227	478,529	405,036
Working capital to gross inc	44.9 %	22.8 %	33.7 %	33.6 %	57.3 %	86.8 %
Term debt coverage ratio	1.84	1.93	2.30	1.55	1.76	2.33
Replacement coverage ratio	1.46	1.79	1.82	1.36	1.32	1.32
<b>Solvency (end of year at cost)</b>						
Number of sole proprietors	156	31	28	35	45	17
Total farm assets	1,880,484	832,945	1,724,700	2,084,025	2,608,801	1,700,335
Total farm liabilities	641,802	456,894	709,512	835,315	736,023	219,644
Total assets	2,143,367	956,970	1,981,136	2,346,108	2,946,902	2,029,586
Total liabilities	703,989	522,979	786,862	896,158	796,581	256,832
Net worth	1,439,378	433,991	1,194,274	1,449,950	2,150,321	1,772,755
Net worth change	111,142	63,155	128,322	104,243	149,629	82,680
Farm debt to asset ratio	34 %	55 %	41 %	40 %	28 %	13 %
Total debt to asset ratio	33 %	55 %	40 %	38 %	27 %	13 %
<b>Nonfarm Information</b>						
Net nonfarm income	32,255	23,596	30,236	56,217	21,763	26,541
Farms reporting living expenses	112	16	23	24	33	16
Total family living expense	79,827	55,809	75,330	89,287	97,522	59,624
<b>Crop Acres</b>						
Total acres owned	887	215	554	865	1,187	1,916
Total crop acres	2,010	1,102	2,050	2,316	2,473	1,755
Total crop acres owned	575	159	356	538	924	875
Total crop acres cash rented	1,217	729	1,363	1,656	1,280	760
Total crop acres share rented	218	213	331	122	269	120



**Financial Summary**  
**North Dakota Farm Business Management Education**  
**Region 2 - North Central North Dakota, 2013**  
**(Farms Sorted By Farm Type)**

	<u>Avg. Of All Farms</u>	<u>Crop</u>	<u>Beef</u>	<u>Crop and Beef</u>	<u>Other</u>
Number of farms	162	84	15	16	47
<b>Income Statement</b>					
Gross cash farm income	752,096	877,491	205,944	587,816	758,216
Total cash farm expense	477,606	560,804	148,985	409,471	456,987
Net cash farm income	274,490	316,687	56,959	178,346	301,229
Inventory change	-68,728	-85,479	18,617	-28,503	-80,360
Depreciation	-37,931	-46,824	-9,070	-27,469	-34,809
Net farm income from operations	167,831	184,383	66,506	122,374	186,059
Gain or loss on capital sales	1,940	751	126	-726	5,553
Average net farm income	169,771	185,134	66,632	121,648	191,612
Median net farm income	122,260	155,013	68,636	111,005	124,639
<b>Profitability (cost)</b>					
Rate of return on assets	7.5 %	7.1 %	7.9 %	7.4 %	8.4 %
Rate of return on equity	9.4 %	8.9 %	12.5 %	8.6 %	10.2 %
Operating profit margin	20.5 %	19.0 %	32.3 %	19.4 %	23.1 %
Asset turnover rate	36.7 %	37.6 %	24.4 %	38.0 %	36.1 %
<b>Liquidity &amp; Repayment (end of year)</b>					
Current assets	553,102	665,963	185,761	387,251	536,749
Current liabilities	253,785	321,292	83,975	164,444	224,296
Current ratio	2.18	2.07	2.21	2.35	2.39
Working capital	299,318	344,671	101,786	222,807	312,453
Working capital to gross inc	44.9 %	44.6 %	45.6 %	40.6 %	46.8 %
Term debt coverage ratio	1.84	1.82	2.24	2.06	1.76
Replacement coverage ratio	1.46	1.42	2.08	1.73	1.39
<b>Solvency (end of year at cost)</b>					
Number of sole proprietors	156	79	15	16	46
Total farm assets	1,880,484	2,156,219	793,149	1,406,647	1,926,319
Total farm liabilities	641,802	763,820	424,282	462,216	565,644
Total assets	2,143,367	2,441,968	890,258	1,612,434	2,223,846
Total liabilities	703,989	838,570	454,096	499,522	625,468
Net worth	1,439,378	1,603,399	436,162	1,112,911	1,598,378
Net worth change	111,142	113,321	71,562	104,800	122,513
Farm debt to asset ratio	34 %	35 %	53 %	33 %	29 %
Total debt to asset ratio	33 %	34 %	51 %	31 %	28 %
<b>Nonfarm Information</b>					
Net nonfarm income	32,255	34,790	34,907	43,582	23,021
Farms reporting living expenses	112	57	7	10	38
Total family living expense	79,827	87,380	40,666	72,688	77,591
<b>Crop Acres</b>					
Total acres owned	887	770	969	1,199	964
Total crop acres	2,010	2,182	702	1,752	2,207
Total crop acres owned	575	612	254	639	591
Total crop acres cash rented	1,217	1,329	373	925	1,384
Total crop acres share rented	218	241	76	189	232

## EXPLANATORY NOTES FOR CROPS TABLES

The "Crop Enterprise Analysis" tables show the average physical production, gross return, direct costs, overhead costs, and net returns per acre. The "Net Return per Acre" is the "Gross Return per Acre" minus the direct and overhead costs. "Net Return" represents the return to the operator's and family's unpaid labor, management, and equity. It represents the return to all of the resources which are owned by the farm family and hence, not purchased or paid a wage. Net returns are also calculated after a charge for unpaid operator labor and management and after an allocation of direct government payments. The last section of each crop table contains breakeven yield measures which provide useful standards or goals for the individual managers.

There are potentially three tables for each crop depending on the farmer's tenure on the land. The crop tables may be for (1) owned land, (2) cash rented land, and (3) share rented land. Individual farms may have data in all three tables if all three land tenure categories are represented in that farm business. When there are less than five farms with a particular crop and tenure, that table is not included in the report. Farms may be classified into the low 20%, the mid 20%, or the high 20% on the basis of net return per acre. The classification is done separately for each table, i.e., an individual farm may be in the low 20% for one crop, the high 20% for a second, and the middle 20% for a third crop. When there are less than 25 total farms with any particular crop and farmer's tenure, only overall averages are presented.

Several cost items, such as "utilities," "hired labor," and "interest paid," are listed under both "direct" and "overhead" costs because some of these costs are specific to that crop whereas others are general overhead costs of the farm. For example, "Machinery leases" as direct expense refers to machinery leased and used only in that crop enterprise; the most common example is the lease of equipment that is crop specific. However, cost of leasing machinery that is used for the entire farm operation is listed as an overhead cost. Interest payments are likewise divided into those incurred directly for a specific crop and those that are not. "Land Rent" is listed as a direct cost for each crop enterprise on cash rented land. In the case of double cropping, one-half of the rent is charged to each crop.

"Total direct expense per unit" and "Total dir & ovhd exp per unit" are calculated by dividing "Total direct expense per acre" and "Total dir & ovhd expenses per acre," respectively, by "Yield per acre." "With labor & management" is the breakeven yield after direct, overhead and a labor and management charge are considered. "Total exp less govt & oth income" is the breakeven yield after all costs (including a labor and management charge) are reduced by government payments and miscellaneous income.

In the last section of the crop table, "machinery cost per acre" is the sum of fuel, repairs, all custom hire and machinery leases, machinery depreciation and interest on intermediate debt.

Rounding of individual items for the report may have caused minor discrepancies with the calculated totals.

**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education**  
**Region 2 - North Central North Dakota, 2013**  
**(Farms Sorted By Net Return)**

**Barley on Owned Land**

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of fields	43	5	16	6
Number of farms	28	5	5	6
Acres	117.65	109.88	79.39	150.60
Yield per acre (bu.)	74.55	57.41	79.62	99.22
Operators share of yield %	100.00	100.00	100.00	100.00
Value per bu.	5.57	4.21	5.66	5.92
Other product return per acre	0.17	-	-	-
Total product return per acre	415.55	241.66	450.67	587.61
Crop insurance per acre	20.54	32.76	5.76	-
Gross return per acre	436.09	274.42	456.42	587.61
<b>Direct Expenses</b>				
Seed	19.49	17.01	22.35	19.23
Fertilizer	63.12	50.23	67.28	74.86
Crop chemicals	35.61	30.83	42.68	40.96
Crop insurance	21.46	16.87	24.04	21.30
Drying expense	0.40	0.58	1.09	-
Fuel & oil	18.86	20.63	20.48	23.45
Repairs	22.63	22.84	23.16	29.45
Custom hire	2.51	2.40	4.56	6.20
Machinery leases	1.37	-	0.40	-
Operating interest	3.07	3.39	3.60	1.90
Miscellaneous	0.13	-	0.48	0.04
Total direct expenses per acre	188.65	164.78	210.12	217.40
Return over direct exp per acre	247.44	109.64	246.30	370.21
<b>Overhead Expenses</b>				
Custom hire	2.31	1.25	-	0.27
Hired labor	8.46	10.76	13.05	4.26
Machinery leases	1.03	0.98	0.92	2.02
RE & pers. property taxes	5.79	7.33	4.74	5.51
Farm insurance	3.16	1.69	3.78	3.87
Utilities	2.56	1.53	2.76	3.38
Dues & professional fees	1.35	1.24	1.66	0.86
Interest	18.71	14.29	22.01	7.05
Mach & bldg depreciation	21.03	16.98	25.90	23.72
Miscellaneous	3.64	1.49	6.12	3.11
Total overhead expenses per acre	68.05	57.53	80.93	54.05
Total dir & ovhd expenses per acre	256.70	222.31	291.06	271.45
Net return per acre	179.39	52.11	165.36	316.16
Government payments	9.67	11.45	7.04	11.08
Net return with govt pmts	189.06	63.56	172.40	327.24
Labor & management charge	29.93	31.59	30.19	32.32
Net return over lbr & mgt	159.13	31.98	142.21	294.92
<b>Cost of Production</b>				
Total direct expense per bu.	2.53	2.87	2.64	2.19
Total dir & ovhd exp per bu.	3.44	3.87	3.66	2.74
Less govt & other income	3.04	3.10	3.49	2.62
With labor & management	3.44	3.65	3.87	2.95
Net value per unit	5.57	4.21	5.66	5.92
Machinery cost per acre	72.46	66.84	76.10	84.91
Est. labor hours per acre	1.54	1.72	1.44	1.29

**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education**  
**Region 2 - North Central North Dakota, 2013**  
**(Farms Sorted By Net Return)**

**Barley on Cash Rent**

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of fields	73	9	14	10
Number of farms	39	7	8	8
Acres	151.37	133.23	143.20	214.82
Yield per acre (bu.)	71.82	56.50	62.82	90.97
Operators share of yield %	100.00	100.00	100.00	100.00
Value per bu.	6.00	5.32	5.76	6.23
Other product return per acre	0.22	-	-	-
Total product return per acre	430.99	300.69	361.75	566.45
Crop insurance per acre	24.57	48.57	25.11	3.63
Other crop income per acre	1.27	-	0.88	5.70
Gross return per acre	456.83	349.26	387.74	575.78
<b>Direct Expenses</b>				
Seed	20.88	20.77	20.76	20.13
Fertilizer	66.72	74.74	51.31	72.21
Crop chemicals	36.16	41.15	32.33	41.94
Crop insurance	19.96	30.68	18.86	19.78
Fuel & oil	21.71	24.94	18.55	21.34
Repairs	27.51	39.55	22.49	28.11
Custom hire	2.81	-	-	3.84
Land rent	47.04	46.22	45.91	49.30
Machinery leases	1.87	-	8.88	-
Operating interest	3.99	4.44	5.24	5.37
Miscellaneous	0.20	0.47	-	-
Total direct expenses per acre	248.86	282.95	224.33	262.02
Return over direct exp per acre	207.97	66.31	163.42	313.76
<b>Overhead Expenses</b>				
Custom hire	1.85	0.90	5.84	0.49
Hired labor	10.04	8.10	3.10	10.62
Machinery leases	3.93	5.01	1.41	4.80
Farm insurance	3.95	4.61	3.60	3.72
Utilities	2.69	3.52	2.29	3.64
Dues & professional fees	1.30	0.69	2.00	0.96
Interest	4.89	9.05	2.22	5.08
Mach & bldg depreciation	23.83	25.76	11.17	22.99
Miscellaneous	2.11	2.01	1.63	2.45
Total overhead expenses per acre	54.58	59.65	33.25	54.76
Total dir & ovhd expenses per acre	303.44	342.61	257.58	316.78
Net return per acre	153.40	6.66	130.16	259.00
Government payments	9.79	12.25	9.01	9.74
Net return with govt pmts	163.19	18.91	139.18	268.74
Labor & management charge	31.27	31.87	34.65	28.83
Net return over lbr & mgt	131.91	-12.97	104.53	239.90
<b>Cost of Production</b>				
Total direct expense per bu.	3.47	5.01	3.57	2.88
Total dir & ovhd exp per bu.	4.23	6.06	4.10	3.48
Less govt & other income	3.73	4.99	3.54	3.27
With labor & management	4.16	5.55	4.09	3.59
Net value per unit	6.00	5.32	5.76	6.23
Machinery cost per acre	86.45	103.24	69.87	84.44
Est. labor hours per acre	1.49	1.46	1.40	1.60

**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education**  
**Region 2 - North Central North Dakota, 2013**  
**(Farms Sorted By Net Return)**

**Beans, Pinto on Owned Land**

	<u><b>Avg. Of All Farms</b></u>
Number of fields	15
Number of farms	8
Acres	125.34
Yield per acre (cwt.)	17.87
Operators share of yield %	100.00
Value per cwt.	35.71
Total product return per acre	638.12
Gross return per acre	638.12
<b>Direct Expenses</b>	
Seed	39.37
Fertilizer	46.68
Crop chemicals	70.42
Crop insurance	37.93
Fuel & oil	28.05
Repairs	46.11
Custom hire	0.78
Machinery leases	0.69
Operating interest	5.24
Total direct expenses per acre	275.26
Return over direct exp per acre	362.86
<b>Overhead Expenses</b>	
Hired labor	13.95
Machinery leases	3.15
RE & pers. property taxes	4.15
Farm insurance	6.24
Utilities	3.80
Dues & professional fees	1.92
Interest	23.61
Mach & bldg depreciation	32.66
Miscellaneous	3.36
Total overhead expenses per acre	92.84
Total dir & ovhd expenses per acre	368.10
Net return per acre	270.02
Government payments	7.07
Net return with govt pmts	277.09
Labor & management charge	33.60
Net return over lbr & mgt	243.49
<b>Cost of Production</b>	
Total direct expense per cwt.	15.40
Total dir & ovhd exp per cwt.	20.60
Less govt & other income	20.20
With labor & management	22.08
Net value per unit	35.71
Machinery cost per acre	113.54
Est. labor hours per acre	1.70

**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education**  
**Region 2 - North Central North Dakota, 2013**  
**(Farms Sorted By Net Return)**

**Beans, Pinto on Cash Rent**

	<u>Avg. Of All Farms</u>
Number of fields	17
Number of farms	9
Acres	199.86
Yield per acre (cwt.)	17.19
Operators share of yield %	100.00
Value per cwt.	35.11
Total product return per acre	603.42
Crop insurance per acre	14.54
Gross return per acre	617.97
<b>Direct Expenses</b>	
Seed	65.47
Fertilizer	41.43
Crop chemicals	90.37
Crop insurance	37.96
Fuel & oil	29.97
Repairs	39.29
Custom hire	0.88
Land rent	50.95
Operating interest	3.91
Total direct expenses per acre	360.22
Return over direct exp per acre	257.75
<b>Overhead Expenses</b>	
Hired labor	15.31
Machinery leases	2.91
Building leases	0.30
Farm insurance	5.32
Utilities	3.31
Dues & professional fees	0.27
Interest	8.69
Mach & bldg depreciation	31.10
Miscellaneous	3.16
Total overhead expenses per acre	70.37
Total dir & ovhd expenses per acre	430.60
Net return per acre	187.37
Government payments	7.77
Net return with govt pmts	195.14
Labor & management charge	34.13
Net return over lbr & mgt	161.01
<b>Cost of Production</b>	
Total direct expense per cwt.	20.96
Total dir & ovhd exp per cwt.	25.05
Less govt & other income	23.76
With labor & management	25.74
Net value per unit	35.11
Machinery cost per acre	110.10
Est. labor hours per acre	1.73



**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education**  
**Region 2 - North Central North Dakota, 2013**  
**(Farms Sorted By Net Return)**

**Canola on Owned Land**

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of fields	36	7	6	10
Number of farms	30	6	6	6
Acres	140.20	67.93	177.60	108.60
Yield per acre (cwt.)	19.44	13.66	19.07	22.29
Operators share of yield %	100.00	100.00	100.00	100.00
Value per cwt.	19.86	19.07	20.60	21.15
Total product return per acre	386.15	260.41	392.79	471.31
Crop insurance per acre	14.24	15.12	28.15	31.66
Other crop income per acre	3.18	-	-	-
Gross return per acre	403.56	275.53	420.94	502.97
<b>Direct Expenses</b>				
Seed	55.73	66.91	58.28	57.94
Fertilizer	73.37	83.03	75.89	70.03
Crop chemicals	28.68	20.53	41.65	20.72
Crop insurance	18.88	24.06	25.17	16.79
Fuel & oil	20.64	28.31	23.47	16.79
Repairs	26.29	46.53	30.03	18.71
Custom hire	4.31	2.32	3.06	14.26
Operating interest	3.69	5.93	4.31	2.52
Miscellaneous	0.02	-	-	-
Total direct expenses per acre	231.61	277.61	261.87	217.76
Return over direct exp per acre	171.95	-2.08	159.07	285.21
<b>Overhead Expenses</b>				
Custom hire	1.00	2.25	0.21	0.00
Hired labor	7.87	3.18	14.06	4.96
Machinery leases	2.60	0.42	1.44	2.55
RE & pers. property taxes	6.64	5.21	8.40	5.77
Farm insurance	3.77	3.79	4.19	3.96
Utilities	2.80	2.32	3.07	2.30
Dues & professional fees	0.76	1.00	0.77	1.14
Interest	17.12	24.14	10.84	8.45
Mach & bldg depreciation	20.57	19.41	20.07	16.47
Miscellaneous	2.81	4.26	2.79	1.66
Total overhead expenses per acre	65.94	65.99	65.85	47.25
Total dir & ovhd expenses per acre	297.55	343.60	327.72	265.00
Net return per acre	106.01	-68.07	93.22	237.97
Government payments	10.09	8.12	11.18	9.59
Net return with govt pmts	116.09	-59.95	104.40	247.56
Labor & management charge	30.59	34.25	30.55	28.88
Net return over lbr & mgt	85.50	-94.20	73.85	218.68
<b>Cost of Production</b>				
Total direct expense per cwt.	11.91	20.33	13.73	9.77
Total dir & ovhd exp per cwt.	15.31	25.16	17.19	11.89
Less govt & other income	13.89	23.46	15.12	10.04
With labor & management	15.47	25.97	16.72	11.34
Net value per unit	19.86	19.07	20.60	21.15
Machinery cost per acre	77.46	103.08	79.75	70.56
Est. labor hours per acre	1.62	1.79	1.79	1.27

**Crop Enterprise Analysis**  
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**(Farms Sorted By Net Return)**

**Canola on Cash Rent**

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of fields	86	12	15	24
Number of farms	50	10	10	10
Acres	142.34	95.30	172.19	113.09
Yield per acre (cwt.)	20.16	13.40	22.00	18.87
Operators share of yield %	100.00	100.00	100.00	100.00
Value per cwt.	20.93	19.05	19.16	27.00
Total product return per acre	421.98	255.33	421.55	509.58
Crop insurance per acre	12.79	18.94	-	24.47
Other crop income per acre	1.46	0.72	-	-
Gross return per acre	436.23	275.00	421.55	534.05
<b>Direct Expenses</b>				
Seed	59.06	48.37	60.28	63.52
Fertilizer	78.92	92.08	81.51	73.90
Crop chemicals	29.29	28.04	42.70	22.58
Crop insurance	17.89	22.66	14.27	21.09
Fuel & oil	21.79	26.32	23.47	16.95
Repairs	28.09	32.12	33.43	19.45
Custom hire	6.23	3.20	8.80	9.13
Land rent	46.45	37.44	43.06	48.03
Operating interest	3.38	7.70	3.00	2.23
Miscellaneous	0.11	0.07	0.00	0.48
Total direct expenses per acre	291.22	297.99	310.52	277.36
Return over direct exp per acre	145.02	-22.99	111.03	256.68
<b>Overhead Expenses</b>				
Custom hire	0.81	1.74	0.69	0.86
Hired labor	5.02	4.26	5.07	3.22
Machinery leases	8.05	1.15	1.28	1.48
Farm insurance	3.63	3.36	3.90	3.19
Utilities	2.58	2.29	2.87	1.89
Dues & professional fees	0.91	0.54	1.13	1.65
Interest	3.01	6.96	2.62	1.46
Mach & bldg depreciation	18.67	14.93	18.51	17.59
Miscellaneous	2.81	0.97	2.89	1.87
Total overhead expenses per acre	45.50	36.21	38.95	33.20
Total dir & ovhd expenses per acre	336.72	334.20	349.47	310.56
Net return per acre	99.52	-59.20	72.08	223.48
Government payments	10.55	9.41	9.46	11.16
Net return with govt pmts	110.06	-49.79	81.53	234.64
Labor & management charge	34.33	29.65	40.78	35.72
Net return over lbr & mgt	75.74	-79.44	40.76	198.92
<b>Cost of Production</b>				
Total direct expense per cwt.	14.44	22.24	14.11	14.70
Total dir & ovhd exp per cwt.	16.70	24.94	15.88	16.45
Less govt & other income	15.47	22.77	15.45	14.57
With labor & management	17.17	24.98	17.31	16.46
Net value per unit	20.93	19.05	19.16	27.00
Machinery cost per acre	85.59	85.19	87.57	66.38
Est. labor hours per acre	1.56	1.37	1.68	1.48

**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education**  
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**(Farms Sorted By Net Return)**

**Corn on Owned Land**

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of fields	50	10	8	13
Number of farms	33	6	6	7
Acres	96.58	81.72	55.75	79.24
Yield per acre (bu.)	116.37	114.04	115.07	128.68
Operators share of yield %	100.00	100.00	100.00	100.00
Value per bu.	3.64	3.50	3.53	4.21
Other product return per acre	1.10	-	-	-
Total product return per acre	424.99	398.75	406.33	541.15
Crop insurance per acre	3.55	-	-	-
Other crop income per acre	2.84	15.39	-	1.11
Gross return per acre	431.38	414.15	406.33	542.26
<b>Direct Expenses</b>				
Seed	84.74	96.05	83.45	71.95
Fertilizer	112.64	146.82	118.96	99.52
Crop chemicals	38.34	39.96	43.57	54.15
Crop insurance	24.45	28.55	22.89	26.97
Drying expense	1.72	-	-	0.71
Fuel & oil	29.52	26.77	31.87	25.69
Repairs	50.41	73.65	40.24	39.48
Custom hire	3.16	0.39	0.05	3.00
Hired labor	0.22	1.30	-	-
Machinery leases	0.43	-	4.02	0.26
Operating interest	5.52	12.16	2.84	2.99
Miscellaneous	0.34	1.02	0.04	0.19
Total direct expenses per acre	351.48	426.67	347.95	324.91
Return over direct exp per acre	79.90	-12.53	58.37	217.34
<b>Overhead Expenses</b>				
Custom hire	1.94	2.93	0.16	0.03
Hired labor	12.89	3.47	12.92	21.49
Machinery leases	1.98	0.43	4.02	2.27
RE & pers. property taxes	4.68	4.73	3.50	2.99
Farm insurance	5.28	8.75	5.05	7.77
Utilities	4.39	10.41	2.90	4.84
Dues & professional fees	1.81	1.57	0.75	2.39
Interest	20.94	27.28	20.80	11.71
Mach & bldg depreciation	34.88	46.97	33.99	39.14
Miscellaneous	4.79	14.80	7.83	1.39
Total overhead expenses per acre	93.57	121.35	91.92	94.02
Total dir & ovhd expenses per acre	445.05	548.03	439.88	418.94
Net return per acre	-13.68	-133.88	-33.55	123.32
Government payments	8.24	8.30	6.74	7.61
Net return with govt pmts	-5.44	-125.58	-26.81	130.94
Labor & management charge	41.99	50.74	42.61	40.03
Net return over lbr & mgt	-47.43	-176.32	-69.43	90.90
<b>Cost of Production</b>				
Total direct expense per bu.	3.02	3.74	3.02	2.52
Total dir & ovhd exp per bu.	3.82	4.81	3.82	3.26
Less govt & other income	3.69	4.60	3.76	3.19
With labor & management	4.05	5.04	4.13	3.50
Net value per unit	3.64	3.50	3.53	4.21
Machinery cost per acre	122.96	150.82	117.08	109.90
Est. labor hours per acre	2.31	2.58	2.25	2.01

**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education**  
**Region 2 - North Central North Dakota, 2013**  
**(Farms Sorted By Net Return)**

**Corn on Cash Rent**

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of fields	58	11	12	14
Number of farms	35	7	7	7
Acres	126.55	89.68	169.82	118.39
Yield per acre (bu.)	122.68	90.21	125.34	127.68
Operators share of yield %	100.00	100.00	100.00	100.00
Value per bu.	3.50	3.51	3.47	3.59
Total product return per acre	428.99	316.86	435.51	457.98
Crop insurance per acre	2.26	7.98	-	-
Other crop income per acre	0.25	-	-	-
Gross return per acre	431.49	324.83	435.51	457.98
<b>Direct Expenses</b>				
Seed	84.68	87.42	95.21	67.04
Fertilizer	115.25	128.59	131.05	93.04
Crop chemicals	29.10	32.49	28.49	33.57
Crop insurance	24.90	25.99	18.07	16.86
Drying expense	2.26	0.66	3.68	0.55
Fuel & oil	37.51	41.20	34.04	34.29
Repairs	50.67	67.69	37.15	45.44
Custom hire	5.19	2.61	6.85	11.29
Hired labor	0.23	1.68	-	-
Land rent	47.04	43.62	51.64	40.88
Operating interest	7.00	8.62	6.11	5.27
Miscellaneous	0.54	0.56	0.09	0.13
Total direct expenses per acre	404.36	441.14	412.38	348.36
Return over direct exp per acre	27.13	-116.31	23.13	109.62
<b>Overhead Expenses</b>				
Custom hire	1.06	6.85	0.20	0.13
Hired labor	15.36	4.53	12.15	22.02
Machinery leases	7.85	5.43	5.60	7.87
Building leases	0.23	-	0.77	-
Farm insurance	5.83	7.51	5.42	5.59
Utilities	4.72	7.22	3.22	5.29
Dues & professional fees	0.87	1.20	0.42	0.63
Interest	7.01	7.80	5.14	5.73
Mach & bldg depreciation	41.49	40.27	47.61	29.35
Miscellaneous	4.44	13.77	4.20	0.97
Total overhead expenses per acre	88.85	94.59	84.72	77.57
Total dir & ovhd expenses per acre	493.21	535.73	497.10	425.93
Net return per acre	-61.72	-210.89	-61.59	32.05
Government payments	8.23	8.51	7.60	8.05
Net return with govt pmts	-53.49	-202.39	-53.98	40.10
Labor & management charge	42.30	44.37	43.00	37.32
Net return over lbr & mgt	-95.79	-246.75	-96.99	2.78
<b>Cost of Production</b>				
Total direct expense per bu.	3.30	4.89	3.29	2.73
Total dir & ovhd exp per bu.	4.02	5.94	3.97	3.34
Less govt & other income	3.93	5.76	3.91	3.27
With labor & management	4.28	6.25	4.25	3.57
Net value per unit	3.50	3.51	3.47	3.59
Machinery cost per acre	147.66	169.09	133.60	130.44
Est. labor hours per acre	2.25	2.57	2.01	1.89

**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education**  
**Region 2 - North Central North Dakota, 2013**  
**(Farms Sorted By Net Return)**

**Corn Silage on Owned Land**

	<u>Avg. Of All Farms</u>
Number of fields	10
Number of farms	9
Acres	58.79
Yield per acre (ton)	16.99
Operators share of yield %	100.00
Value per ton	25.90
Other product return per acre	1.45
Total product return per acre	441.63
Gross return per acre	441.63
<b>Direct Expenses</b>	
Seed	75.75
Fertilizer	66.97
Crop chemicals	16.88
Crop insurance	12.05
Fuel & oil	31.86
Repairs	33.54
Custom hire	35.92
Operating interest	5.59
Total direct expenses per acre	278.57
Return over direct exp per acre	163.06
<b>Overhead Expenses</b>	
Custom hire	0.84
Hired labor	11.99
Machinery leases	0.96
RE & pers. property taxes	5.86
Farm insurance	3.79
Utilities	2.02
Dues & professional fees	1.35
Interest	15.97
Mach & bldg depreciation	24.42
Miscellaneous	0.86
Total overhead expenses per acre	68.06
Total dir & ovhd expenses per acre	346.63
Net return per acre	95.00
Government payments	9.31
Net return with govt pmts	104.30
Labor & management charge	37.20
Net return over lbr & mgt	67.10
<b>Cost of Production</b>	
Total direct expense per ton	16.39
Total dir & ovhd exp per ton	20.40
Less govt & other income	19.76
With labor & management	21.95
Net value per unit	25.90
Machinery cost per acre	129.60
Est. labor hours per acre	2.44

**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education**  
**Region 2 - North Central North Dakota, 2013**  
**(Farms Sorted By Net Return)**

**CRP on Owned Land**

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of fields	64	5	28	10
Number of farms	29	5	6	6
Acres	49.40	51.53	32.26	45.88
Yield per acre (\$)	32.87	32.04	30.09	42.95
Operators share of yield %	100.00	100.00	100.00	100.00
Value per \$	1.00	1.00	1.00	1.00
Total product return per acre	32.87	32.04	30.09	42.95
Gross return per acre	32.87	32.04	30.09	42.95
<b>Direct Expenses</b>				
Crop chemicals	1.15	0.42	2.78	-
Crop insurance	0.40	4.86	-	-
Fuel & oil	0.67	0.83	0.57	0.16
Repairs	0.72	1.23	0.54	0.20
Total direct expenses per acre	3.00	7.49	3.96	0.37
Return over direct exp per acre	29.87	24.55	26.14	42.58
<b>Overhead Expenses</b>				
RE & pers. property taxes	5.51	6.70	6.73	4.90
Interest	6.53	23.45	2.53	3.63
Mach & bldg depreciation	0.70	0.64	0.98	0.21
Miscellaneous	1.04	1.03	0.80	0.21
Total overhead expenses per acre	13.79	31.82	11.04	8.95
Total dir & ovhd expenses per acre	16.80	39.31	14.99	9.32
Net return per acre	16.07	-7.27	15.10	33.63

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**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education**  
**Region 2 - North Central North Dakota, 2013**  
**(Farms Sorted By Net Return)**

**Fallow on Cash Rent**

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	<u><b>Avg. Of All Farms</b></u>
Number of fields	23
Number of farms	20
Acres	96.29
Yield per acre	0.00
Operators share of yield %	100.00
Value	-
Total product return per acre	-
Gross return per acre	-
<b>Direct Expenses</b>	
Seed	0.76
Fertilizer	0.57
Crop chemicals	6.48
Fuel & oil	8.28
Repairs	11.40
Custom hire	0.19
Land rent	36.99
Operating interest	1.12
Total direct expenses per acre	65.78
Return over direct exp per acre	-65.78
<b>Overhead Expenses</b>	
Custom hire	1.95
Hired labor	3.15
Machinery leases	0.96
Farm insurance	1.98
Utilities	1.36
Interest	2.29
Mach & bldg depreciation	7.74
Miscellaneous	0.86
Total overhead expenses per acre	20.30
Total dir & ovhd expenses per acre	86.08
Net return per acre	-86.08
Government payments	9.56
Net return with govt pmts	-76.52
Labor & management charge	10.08
Net return over lbr & mgt	-86.60

**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education**  
**Region 2 - North Central North Dakota, 2013**  
**(Farms Sorted By Net Return)**

**Hay, Alfalfa on Owned Land**

	<u>Avg. Of All Farms</u>
Number of fields	35
Number of farms	17
Acres	59.37
Yield per acre (ton)	1.76
Operators share of yield %	100.00
Value per ton	66.29
Total product return per acre	116.84
Other crop income per acre	1.91
Gross return per acre	118.75
<b>Direct Expenses</b>	
Seed	0.89
Fertilizer	0.50
Crop insurance	0.19
Fuel & oil	12.67
Repairs	14.95
Custom hire	2.25
Operating interest	1.82
Total direct expenses per acre	33.40
Return over direct exp per acre	85.35
<b>Overhead Expenses</b>	3.56
Hired labor	0.77
Machinery leases	5.16
RE & pers. property taxes	3.14
Farm insurance	1.88
Utilities	0.84
Dues & professional fees	10.31
Interest	8.96
Mach & bldg depreciation	0.72
Miscellaneous	35.33
Total overhead expenses per acre	68.73
Total dir & ovhd expenses per acre	50.02
Net return per acre	2.28
Government payments	52.30
Net return with govt pmts	13.54
Labor & management charge	38.77
Net return over lbr & mgt	
<b>Cost of Production</b>	18.95
Total direct expense per ton	38.99
Total dir & ovhd exp per ton	36.62
Less govt & other income	44.29
With labor & management	66.29
Net value per unit	42.14
Machinery cost per acre	1.08
Est. labor hours per acre	



**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education**  
**Region 2 - North Central North Dakota, 2013**  
**(Farms Sorted By Net Return)**

**Hay, Alfalfa on Cash Rent**

	<u>Avg. Of All Farms</u>
Number of fields	20
Number of farms	14
Acres	50.68
Yield per acre (ton)	2.10
Operators share of yield %	100.00
Value per ton	68.66
Total product return per acre	144.27
Gross return per acre	144.27
<b>Direct Expenses</b>	
Crop insurance	0.18
Fuel & oil	12.45
Repairs	14.19
Custom hire	0.62
Land rent	26.95
Operating interest	1.96
Miscellaneous	0.13
Total direct expenses per acre	56.49
Return over direct exp per acre	87.79
<b>Overhead Expenses</b>	
Custom hire	1.59
Hired labor	2.38
Farm insurance	2.87
Utilities	1.96
Dues & professional fees	1.21
Interest	5.87
Mach & bldg depreciation	7.25
Miscellaneous	0.62
Total overhead expenses per acre	23.75
Total dir & ovhd expenses per acre	80.24
Net return per acre	64.04
Government payments	2.53
Net return with govt pmts	66.57
Labor & management charge	13.62
Net return over lbr & mgt	52.94
<b>Cost of Production</b>	
Total direct expense per ton	26.88
Total dir & ovhd exp per ton	38.19
Less govt & other income	36.98
With labor & management	43.47
Net value per unit	68.66
Machinery cost per acre	41.13
Est. labor hours per acre	1.09

**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education**  
**Region 2 - North Central North Dakota, 2013**  
**(Farms Sorted By Net Return)**

**Hay, Grass on Owned Land**

	<u><b>Avg. Of All Farms</b></u>
Number of fields	29
Number of farms	20
Acres	90.54
Yield per acre (ton)	1.20
Operators share of yield %	100.00
Value per ton	40.86
Total product return per acre	49.02
Gross return per acre	49.02
<b>Direct Expenses</b>	
Crop chemicals	0.22
Fuel & oil	9.26
Repairs	13.01
Operating interest	1.64
Miscellaneous	3.48
Total direct expenses per acre	27.61
Return over direct exp per acre	21.41
<b>Overhead Expenses</b>	
Custom hire	1.28
Hired labor	4.12
RE & pers. property taxes	2.75
Farm insurance	0.89
Utilities	0.90
Interest	5.30
Mach & bldg depreciation	7.57
Miscellaneous	0.71
Total overhead expenses per acre	23.52
Total dir & ovhd expenses per acre	51.12
Net return per acre	-2.11
Government payments	0.11
Net return with govt pmts	-2.00
Labor & management charge	12.48
Net return over lbr & mgt	-14.48
<b>Cost of Production</b>	
Total direct expense per ton	23.01
Total dir & ovhd exp per ton	42.62
Less govt & other income	42.53
With labor & management	52.94
Net value per unit	40.86
Machinery cost per acre	31.74
Est. labor hours per acre	1.12

**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education**  
**Region 2 - North Central North Dakota, 2013**  
**(Farms Sorted By Net Return)**

**Hay, Grass on Cash Rent**

	<u><b>Avg. Of All Farms</b></u>
Number of fields	40
Number of farms	23
Acres	144.97
Yield per acre (ton)	1.11
Operators share of yield %	100.00
Value per ton	41.70
Total product return per acre	46.24
Gross return per acre	46.24
<b>Direct Expenses</b>	
Fuel & oil	9.51
Repairs	12.61
Land rent	13.78
Operating interest	1.44
Miscellaneous	1.05
Total direct expenses per acre	38.40
Return over direct exp per acre	7.85
<b>Overhead Expenses</b>	
Custom hire	1.45
Hired labor	3.91
Machinery leases	0.35
Farm insurance	0.80
Utilities	1.14
Interest	1.23
Mach & bldg depreciation	7.36
Miscellaneous	0.66
Total overhead expenses per acre	16.91
Total dir & ovhd expenses per acre	55.30
Net return per acre	-9.06
Government payments	0.01
Net return with govt pmts	-9.05
Labor & management charge	11.44
Net return over lbr & mgt	-20.48
<b>Cost of Production</b>	
Total direct expense per ton	34.63
Total dir & ovhd exp per ton	49.87
Less govt & other income	49.86
With labor & management	60.18
Net value per unit	41.70
Machinery cost per acre	31.89
Est. labor hours per acre	0.99

**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education**  
**Region 2 - North Central North Dakota, 2013**  
**(Farms Sorted By Net Return)**

**Hay, Mixed Alfalfa/Grass on Owned Land**

	<u><b>Avg. Of All Farms</b></u>
Number of fields	22
Number of farms	13
Acres	47.49
Yield per acre (ton)	1.62
Operators share of yield %	100.00
Value per ton	59.14
Total product return per acre	95.69
Gross return per acre	95.69
<b>Direct Expenses</b>	
Seed	2.85
Fertilizer	2.04
Fuel & oil	12.77
Repairs	14.00
Operating interest	2.36
Total direct expenses per acre	34.23
Return over direct exp per acre	61.46
<b>Overhead Expenses</b>	
Custom hire	4.80
Hired labor	3.23
Machinery leases	0.90
Building leases	0.08
RE & pers. property taxes	4.85
Farm insurance	3.51
Utilities	1.74
Dues & professional fees	1.17
Interest	17.32
Mach & bldg depreciation	11.30
Miscellaneous	0.40
Total overhead expenses per acre	49.32
Total dir & ovhd expenses per acre	83.55
Net return per acre	12.14
Government payments	2.25
Net return with govt pmts	14.39
Labor & management charge	13.14
Net return over lbr & mgt	1.25
<b>Cost of Production</b>	
Total direct expense per ton	21.16
Total dir & ovhd exp per ton	51.63
Less govt & other income	50.25
With labor & management	58.37
Net value per unit	59.14
Machinery cost per acre	45.98
Est. labor hours per acre	0.83

**Crop Enterprise Analysis**  
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**Hay, Mixed Alfalfa/Grass on Cash Rent**

	<u>Avg. Of All Farms</u>
Number of fields	13
Number of farms	11
Acres	82.40
Yield per acre (ton)	1.40
Operators share of yield %	100.00
Value per ton	47.80
Total product return per acre	67.00
Gross return per acre	67.00
<b>Direct Expenses</b>	
Crop insurance	0.13
Fuel & oil	14.95
Repairs	12.71
Land rent	28.23
Operating interest	4.45
Miscellaneous	0.15
Total direct expenses per acre	60.62
Return over direct exp per acre	6.38
<b>Overhead Expenses</b>	
Custom hire	1.44
Hired labor	0.53
Machinery leases	0.50
Farm insurance	3.15
Utilities	2.14
Dues & professional fees	2.72
Interest	3.32
Mach & bldg depreciation	10.80
Miscellaneous	0.02
Total overhead expenses per acre	24.61
Total dir & ovhd expenses per acre	85.24
Net return per acre	-18.23
Government payments	6.49
Net return with govt pmts	-11.75
Labor & management charge	18.66
Net return over lbr & mgt	-30.41
<b>Cost of Production</b>	
Total direct expense per ton	43.25
Total dir & ovhd exp per ton	60.81
Less govt & other income	56.18
With labor & management	69.49
Net value per unit	47.80
Machinery cost per acre	43.26
Est. labor hours per acre	1.26

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**Pasture on Owned Land**

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of fields	58	7	10	18
Number of farms	35	7	7	7
Acres	305.35	155.91	249.62	258.16
Yield per acre (aum)	1.08	0.62	0.87	1.27
Operators share of yield %	100.00	100.00	100.00	100.00
Value per aum	15.71	13.90	15.40	15.92
Other product return per acre	0.17	-	-	0.63
Total product return per acre	17.13	8.63	13.46	20.91
Other crop income per acre	3.57	-	-	12.86
Gross return per acre	20.70	8.63	13.46	33.77
<b>Direct Expenses</b>				
Fuel & oil	0.57	1.30	0.46	0.63
Repairs	0.77	2.12	0.50	0.86
Total direct expenses per acre	1.67	3.52	1.55	1.88
Return over direct exp per acre	19.03	5.11	11.91	31.89
<b>Overhead Expenses</b>				
RE & pers. property taxes	2.67	4.39	2.60	2.73
Interest	4.31	8.36	4.11	3.23
Mach & bldg depreciation	0.47	1.87	0.36	0.36
Miscellaneous	0.61	1.28	0.42	0.38
Total overhead expenses per acre	8.06	15.90	7.48	6.69
Total dir & ovhd expenses per acre	9.73	19.42	9.03	8.58
Net return per acre	10.97	-10.79	4.43	25.19

**Crop Enterprise Analysis**  
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**Pasture on Cash Rent**

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of fields	88	14	31	12
Number of farms	42	8	9	9
Acres	321.90	163.02	362.27	376.88
Yield per acre (aum)	0.97	0.71	0.91	1.26
Operators share of yield %	100.00	100.00	100.00	100.00
Value per aum	15.58	15.29	15.68	15.85
Other product return per acre	0.35	-	0.53	0.04
Total product return per acre	15.43	10.91	14.87	20.03
Other crop income per acre	0.87	-	-	4.90
Gross return per acre	16.30	10.91	14.87	24.93
<b>Direct Expenses</b>				
Fuel & oil	0.66	0.92	0.66	0.59
Repairs	0.74	1.35	0.63	0.85
Land rent	13.20	19.36	12.38	10.95
Total direct expenses per acre	14.84	21.72	14.02	12.68
Return over direct exp per acre	1.47	-10.80	0.85	12.25
<b>Overhead Expenses</b>				
Mach & bldg depreciation	0.43	0.82	0.33	0.49
Miscellaneous	0.79	1.24	0.63	0.56
Total overhead expenses per acre	1.22	2.05	0.96	1.04
Total dir & ovhd expenses per acre	16.06	23.77	14.98	13.73
Net return per acre	0.25	-12.86	-0.11	11.20

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**Peas, Field on Cash Rent**

	<u><b>Avg. Of All Farms</b></u>
Number of fields	11
Number of farms	6
Acres	76.92
Yield per acre (bu.)	39.39
Operators share of yield %	100.00
Value per bu.	9.29
Total product return per acre	365.88
Crop insurance per acre	22.04
Other crop income per acre	3.42
Gross return per acre	391.35
<b>Direct Expenses</b>	
Seed	46.61
Fertilizer	14.49
Crop chemicals	62.60
Crop insurance	17.66
Fuel & oil	22.78
Repairs	29.40
Custom hire	11.01
Land rent	43.72
Operating interest	5.78
Total direct expenses per acre	254.67
Return over direct exp per acre	136.68
<b>Overhead Expenses</b>	
Hired labor	8.84
Machinery leases	0.67
Farm insurance	3.95
Utilities	3.15
Dues & professional fees	1.30
Interest	5.08
Mach & bldg depreciation	31.20
Miscellaneous	7.86
Total overhead expenses per acre	62.05
Total dir & ovhd expenses per acre	316.72
Net return per acre	74.63
Government payments	7.53
Net return with govt pmts	82.16
Labor & management charge	33.32
Net return over lbr & mgt	48.84
<b>Cost of Production</b>	
Total direct expense per bu.	6.47
Total dir & ovhd exp per bu.	8.04
Less govt & other income	7.20
With labor & management	8.05
Net value per unit	9.29
Machinery cost per acre	98.01
Est. labor hours per acre	1.94



**Crop Enterprise Analysis**  
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**Prevented planting on Owned Land**

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of fields	135	28	33	27
Number of farms	74	14	15	15
Acres	157.15	84.82	172.30	172.90
Yield per acre (bu.)	0.00	0.00	0.00	0.00
Operators share of yield %	100.00	100.00	100.00	100.00
Value per bu.	1.00	1.00	1.00	1.00
Total product return per acre	0.00	0.00	0.00	0.00
Crop insurance per acre	196.88	139.71	183.29	261.77
Gross return per acre	196.88	139.71	183.29	261.77
<b>Direct Expenses</b>				
Seed	1.48	-	1.09	2.09
Fertilizer	5.67	21.30	3.09	5.38
Crop chemicals	11.87	14.94	14.05	12.25
Crop insurance	19.97	18.32	23.28	18.21
Fuel & oil	9.60	8.44	9.42	9.28
Repairs	14.13	16.85	11.14	17.84
Custom hire	0.65	2.76	0.14	0.61
Operating interest	1.56	1.81	1.51	1.69
Miscellaneous	0.02	-	0.00	0.09
Total direct expenses per acre	64.95	84.43	63.73	67.44
Return over direct exp per acre	131.93	55.28	119.56	194.33
<b>Overhead Expenses</b>				
Hired labor	4.00	1.61	3.56	4.82
Machinery leases	1.66	1.01	2.84	0.74
RE & pers. property taxes	6.24	5.77	5.64	7.61
Farm insurance	3.54	3.22	3.11	4.57
Utilities	2.77	2.71	3.30	2.88
Dues & professional fees	0.86	0.95	0.51	0.61
Interest	14.36	24.97	11.11	10.15
Mach & bldg depreciation	10.01	6.58	8.71	11.66
Miscellaneous	2.88	1.29	4.01	2.49
Total overhead expenses per acre	46.32	48.11	42.78	45.54
Total dir & ovhd expenses per acre	111.27	132.53	106.51	112.98
Net return per acre	85.60	7.17	76.78	148.79
Government payments	9.65	9.38	9.89	9.85
Net return with govt pmts	95.25	16.55	86.67	158.64
Labor & management charge	14.47	11.23	14.99	16.23
Net return over lbr & mgt	80.78	5.33	71.68	142.41

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**Prevented planting on Cash Rent**

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of fields	321	69	72	69
Number of farms	101	20	20	21
Acres	172.63	134.03	139.75	184.80
Yield per acre (bu.)	0.00	0.00	0.00	0.00
Operators share of yield %	100.00	100.00	100.00	100.00
Value per bu.	1.00	1.00	1.00	1.00
Total product return per acre	0.00	0.00	0.00	0.00
Crop insurance per acre	193.32	147.22	165.04	260.57
Gross return per acre	193.32	147.22	165.04	260.57
<b>Direct Expenses</b>				
Seed	0.92	-	0.40	1.71
Fertilizer	2.60	5.64	3.09	1.77
Crop chemicals	11.63	15.43	12.77	8.42
Crop insurance	18.15	16.50	16.33	20.04
Fuel & oil	10.53	8.57	8.82	10.94
Repairs	13.22	14.13	9.85	14.02
Custom hire	0.70	1.33	0.35	0.79
Land rent	44.85	46.71	40.14	46.86
Operating interest	2.06	2.37	1.98	1.20
Miscellaneous	0.18	-	0.22	0.56
Total direct expenses per acre	104.84	110.68	93.95	106.31
Return over direct exp per acre	88.48	36.54	71.09	154.26
<b>Overhead Expenses</b>				
Custom hire	0.24	0.24	0.64	0.21
Hired labor	4.15	3.41	1.89	6.48
Machinery leases	2.91	2.25	1.61	1.18
Farm insurance	3.49	3.70	3.65	3.16
Utilities	2.49	3.00	2.49	2.39
Dues & professional fees	0.99	1.31	0.94	1.15
Interest	2.84	5.06	2.01	3.37
Mach & bldg depreciation	9.55	9.90	8.31	11.63
Miscellaneous	2.26	1.14	2.49	2.22
Total overhead expenses per acre	28.93	30.00	24.02	31.78
Total dir & ovhd expenses per acre	133.77	140.68	117.96	138.09
Net return per acre	59.55	6.54	47.07	122.47
Government payments	9.94	10.33	10.66	9.53
Net return with govt pmts	69.49	16.86	57.73	132.00
Labor & management charge	14.53	13.27	12.90	15.02
Net return over lbr & mgt	54.96	3.60	44.83	116.98

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**Soybeans on Owned Land**

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of fields	55	12	8	11
Number of farms	43	8	8	9
Acres	124.66	128.22	104.62	103.35
Yield per acre (bu.)	35.17	29.33	33.97	45.40
Operators share of yield %	100.00	100.00	100.00	100.00
Value per bu.	12.19	12.18	12.14	12.34
Total product return per acre	428.61	357.18	412.48	559.98
Crop insurance per acre	5.76	16.87	-	-
Other crop income per acre	1.39	4.72	-	0.93
Gross return per acre	435.76	378.77	412.48	560.91
<b>Direct Expenses</b>				
Seed	75.34	84.31	64.44	66.44
Fertilizer	21.98	25.73	28.04	36.21
Crop chemicals	19.53	20.89	22.85	20.70
Crop insurance	23.93	38.83	15.97	21.95
Fuel & oil	18.48	19.61	17.61	17.71
Repairs	30.49	45.74	29.39	17.30
Custom hire	1.55	0.30	7.13	0.75
Machinery leases	0.15	-	-	0.88
Operating interest	3.90	3.33	1.91	0.97
Miscellaneous	0.14	-	0.71	0.21
Total direct expenses per acre	195.48	238.74	188.03	183.12
Return over direct exp per acre	240.28	140.03	224.45	377.79
<b>Overhead Expenses</b>				
Custom hire	1.22	1.25	1.02	2.53
Hired labor	8.29	9.24	9.20	13.12
Machinery leases	2.49	3.39	0.87	2.06
RE & pers. property taxes	6.25	7.04	7.16	4.47
Farm insurance	4.41	6.29	4.32	3.48
Utilities	3.74	4.66	3.24	2.71
Dues & professional fees	0.82	0.18	0.73	0.78
Interest	18.43	17.70	22.02	11.25
Mach & bldg depreciation	23.56	25.37	16.91	18.00
Miscellaneous	3.06	4.15	3.25	2.37
Total overhead expenses per acre	72.26	79.26	68.71	60.78
Total dir & ovhd expenses per acre	267.74	318.00	256.74	243.90
Net return per acre	168.02	60.77	155.74	317.02
Government payments	9.17	8.67	9.81	10.14
Net return with govt pmts	177.19	69.44	165.54	327.16
Labor & management charge	28.26	29.69	26.96	27.51
Net return over lbr & mgt	148.93	39.75	138.58	299.65
<b>Cost of Production</b>				
Total direct expense per bu.	5.56	8.14	5.53	4.03
Total dir & ovhd exp per bu.	7.61	10.84	7.56	5.37
Less govt & other income	7.15	9.81	7.27	5.13
With labor & management	7.95	10.82	8.06	5.73
Net value per unit	12.19	12.18	12.14	12.34
Machinery cost per acre	79.58	98.68	76.08	60.91
Est. labor hours per acre	1.48	1.66	1.78	1.58

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**Soybeans on Cash Rent**

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of fields	125	24	31	18
Number of farms	66	13	13	14
Acres	188.44	135.82	239.43	152.70
Yield per acre (bu.)	33.29	27.24	32.91	42.72
Operators share of yield %	100.00	100.00	100.00	100.00
Value per bu.	12.26	12.21	12.24	12.49
Total product return per acre	408.34	332.57	402.81	533.49
Crop insurance per acre	16.69	24.29	33.03	-
Other crop income per acre	0.88	-	0.99	-
Gross return per acre	425.91	356.86	436.83	533.49
<b>Direct Expenses</b>				
Seed	78.36	72.58	87.07	74.55
Fertilizer	27.63	36.48	26.93	27.48
Crop chemicals	27.12	33.83	31.33	25.02
Crop insurance	20.96	19.80	23.42	19.60
Fuel & oil	20.79	24.94	18.66	17.88
Repairs	30.05	39.18	35.26	23.21
Custom hire	2.31	9.15	0.42	1.07
Hired labor	0.18	1.29	-	-
Land rent	50.65	66.79	47.94	45.92
Machinery leases	0.08	-	-	0.71
Operating interest	5.54	10.76	7.59	2.74
Miscellaneous	0.34	0.44	-	0.62
Total direct expenses per acre	264.00	315.25	278.61	238.80
Return over direct exp per acre	161.91	41.62	158.21	294.69
<b>Overhead Expenses</b>				
Custom hire	1.28	0.99	0.17	2.95
Hired labor	6.43	5.42	4.96	4.87
Machinery leases	5.95	12.05	8.23	4.51
Farm insurance	3.91	3.19	4.34	2.93
Utilities	3.58	4.84	4.17	3.13
Dues & professional fees	0.78	2.33	0.22	1.09
Interest	4.49	4.20	5.34	3.09
Mach & bldg depreciation	22.74	23.03	27.26	20.47
Miscellaneous	3.13	4.58	3.01	4.52
Total overhead expenses per acre	52.30	60.62	57.71	47.56
Total dir & ovhd expenses per acre	316.30	375.87	336.32	286.36
Net return per acre	109.61	-19.00	100.50	247.13
Government payments	10.22	10.08	11.51	9.02
Net return with govt pmts	119.82	-8.93	112.01	256.15
Labor & management charge	29.71	35.06	28.29	36.33
Net return over lbr & mgt	90.11	-43.99	83.72	219.82
<b>Cost of Production</b>				
Total direct expense per bu.	7.93	11.57	8.47	5.59
Total dir & ovhd exp per bu.	9.50	13.80	10.22	6.70
Less govt & other income	8.67	12.54	8.84	6.49
With labor & management	9.56	13.83	9.69	7.34
Net value per unit	12.26	12.21	12.24	12.49
Machinery cost per acre	85.48	112.92	91.66	72.49
Est. labor hours per acre	1.44	1.93	1.12	1.72

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**Soybeans on Share Rent**

	<u>Avg. Of All Farms</u>
Number of fields	42
Number of farms	21
Acres	102.48
Yield per acre (bu.)	36.72
Operators share of yield %	58.32
Value per bu.	12.34
Total product return per acre	264.13
Other crop income per acre	1.30
Gross return per acre	265.43
<b>Direct Expenses</b>	
Seed	49.33
Fertilizer	13.64
Crop chemicals	14.51
Crop insurance	11.54
Fuel & oil	14.94
Repairs	26.32
Custom hire	3.40
Machinery leases	1.00
Operating interest	3.57
Miscellaneous	6.67
Total direct expenses per acre	144.92
Return over direct exp per acre	120.51
<b>Overhead Expenses</b>	
Custom hire	1.22
Hired labor	6.75
Machinery leases	2.07
Farm insurance	3.93
Utilities	3.06
Dues & professional fees	0.94
Interest	2.56
Mach & bldg depreciation	21.14
Miscellaneous	1.40
Total overhead expenses per acre	43.07
Total dir & ovhd expenses per acre	187.99
Net return per acre	77.44
Government payments	5.32
Net return with govt pmts	82.76
Labor & management charge	25.95
Net return over lbr & mgt	56.81
<b>Cost of Production</b>	
Total direct expense per bu.	6.77
Total dir & ovhd exp per bu.	8.78
Less govt & other income	8.47
With labor & management	9.68
Net value per unit	12.34
Machinery cost per acre	70.17
Est. labor hours per acre	1.32

**Crop Enterprise Analysis**  
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**Sunflowers on Cash Rent**

	<u>Avg. Of All Farms</u>
Number of fields	17
Number of farms	6
Acres	87.10
Yield per acre (cwt.)	18.91
Operators share of yield %	100.00
Value per cwt.	20.28
Total product return per acre	383.33
Crop insurance per acre	0.42
Gross return per acre	383.75
<b>Direct Expenses</b>	
Seed	41.73
Fertilizer	43.44
Crop chemicals	52.51
Crop insurance	25.51
Drying expense	0.69
Fuel & oil	17.86
Repairs	31.41
Custom hire	11.38
Land rent	42.44
Operating interest	6.95
Total direct expenses per acre	274.28
Return over direct exp per acre	109.47
<b>Overhead Expenses</b>	
Custom hire	0.92
Hired labor	11.96
Machinery leases	0.98
Building leases	1.25
Farm insurance	4.18
Utilities	1.72
Dues & professional fees	3.80
Interest	2.75
Mach & bldg depreciation	20.27
Miscellaneous	1.12
Total overhead expenses per acre	48.94
Total dir & ovhd expenses per acre	323.22
Net return per acre	60.53
Government payments	8.45
Net return with govt pmts	68.99
Labor & management charge	38.51
Net return over lbr & mgt	30.48
<b>Cost of Production</b>	
Total direct expense per cwt.	14.51
Total dir & ovhd exp per cwt.	17.10
Less govt & other income	16.63
With labor & management	18.66
Net value per unit	20.28
Machinery cost per acre	83.65
Est. labor hours per acre	1.52

**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education**  
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**Wheat, Spring on Owned Land**

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of fields	108	25	17	25
Number of farms	63	12	12	13
Acres	145.66	124.47	135.54	198.55
Yield per acre (bu.)	58.41	36.52	63.23	69.85
Operators share of yield %	100.00	100.00	100.00	100.00
Value per bu.	6.15	6.33	5.96	6.40
Other product return per acre	0.10	0.33	0.23	-
Total product return per acre	359.59	231.45	377.25	446.94
Crop insurance per acre	10.64	38.45	12.79	-
Other crop income per acre	1.94	4.29	2.76	1.77
Gross return per acre	372.18	274.19	392.81	448.72
<b>Direct Expenses</b>				
Seed	20.05	23.32	21.76	18.80
Fertilizer	69.20	65.87	84.03	70.22
Crop chemicals	37.53	40.84	43.92	31.74
Crop insurance	21.11	18.24	31.98	19.34
Fuel & oil	19.30	19.84	19.79	19.13
Repairs	28.70	30.32	30.32	28.04
Custom hire	4.62	3.39	2.34	3.63
Operating interest	3.80	5.33	5.64	1.74
Miscellaneous	0.42	0.35	0.09	0.37
Total direct expenses per acre	204.72	207.50	239.88	193.00
Return over direct exp per acre	167.46	66.69	152.93	255.72
<b>Overhead Expenses</b>				
Custom hire	1.11	0.61	1.53	0.00
Hired labor	6.76	9.38	5.66	4.56
Machinery leases	1.94	1.50	4.74	1.59
Building leases	0.23	0.73	-	0.22
RE & pers. property taxes	6.06	6.15	7.27	4.88
Farm insurance	4.62	4.75	4.77	5.07
Utilities	3.30	3.38	3.14	3.38
Dues & professional fees	1.30	1.51	1.23	1.41
Interest	15.36	18.83	18.11	12.75
Mach & bldg depreciation	22.90	18.66	25.96	24.59
Miscellaneous	2.41	3.92	1.42	1.85
Total overhead expenses per acre	65.98	69.42	73.83	60.30
Total dir & ovhd expenses per acre	270.70	276.92	313.71	253.30
Net return per acre	101.48	-2.73	79.10	195.41
Government payments	9.77	8.99	10.72	9.40
Net return with govt pmts	111.25	6.25	89.82	204.81
Labor & management charge	28.50	29.42	26.44	27.96
Net return over lbr & mgt	82.75	-23.17	63.38	176.85
<b>Cost of Production</b>				
Total direct expense per bu.	3.50	5.68	3.79	2.76
Total dir & ovhd exp per bu.	4.63	7.58	4.96	3.63
Less govt & other income	4.25	6.16	4.54	3.47
With labor & management	4.74	6.96	4.96	3.87
Net value per unit	6.15	6.33	5.96	6.40
Machinery cost per acre	79.81	77.53	86.26	77.43
Est. labor hours per acre	1.41	1.49	1.30	1.26

**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education**  
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**(Farms Sorted By Net Return)**

**Wheat, Spring on Cash Rent**

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of fields	185	32	31	35
Number of farms	88	17	17	18
Acres	165.52	178.73	249.30	142.53
Yield per acre (bu.)	60.16	48.88	60.12	72.35
Operators share of yield %	100.00	100.00	100.00	100.00
Value per bu.	6.18	5.97	6.01	6.53
Total product return per acre	371.82	291.92	361.41	472.58
Crop insurance per acre	5.10	6.52	13.85	-
Other crop income per acre	0.62	-	0.72	0.83
Gross return per acre	377.54	298.44	375.98	473.41
<b>Direct Expenses</b>				
Seed	21.07	22.16	19.32	20.31
Fertilizer	73.62	77.31	69.47	71.39
Crop chemicals	39.47	36.75	41.89	34.46
Crop insurance	22.38	16.94	27.36	21.98
Drying expense	0.37	0.45	-	0.60
Fuel & oil	20.61	20.89	21.93	20.56
Repairs	29.00	29.32	32.71	26.45
Custom hire	4.40	5.17	1.13	5.38
Land rent	46.80	46.02	44.58	51.68
Operating interest	5.05	4.68	7.00	4.16
Miscellaneous	0.17	0.04	0.03	0.31
Total direct expenses per acre	262.95	259.72	265.42	257.27
Return over direct exp per acre	114.59	38.72	110.56	216.14
<b>Overhead Expenses</b>				
Custom hire	0.88	1.47	0.46	0.38
Hired labor	7.03	7.30	7.89	3.34
Machinery leases	7.25	23.88	5.49	3.39
Building leases	0.23	0.32	0.08	0.61
Farm insurance	3.83	4.01	3.10	4.36
Utilities	2.90	2.99	3.34	2.70
Dues & professional fees	0.99	1.13	0.51	1.01
Interest	3.59	2.68	6.20	2.34
Mach & bldg depreciation	18.89	15.14	19.36	22.49
Miscellaneous	2.41	2.41	1.93	3.40
Total overhead expenses per acre	48.02	61.34	48.36	44.04
Total dir & ovhd expenses per acre	310.97	321.05	313.78	301.31
Net return per acre	66.57	-22.62	62.20	172.10
Government payments	9.98	10.07	10.07	11.24
Net return with govt pmts	76.55	-12.55	72.27	183.35
Labor & management charge	30.69	31.46	26.60	34.49
Net return over lbr & mgt	45.86	-44.01	45.67	148.85
<b>Cost of Production</b>				
Total direct expense per bu.	4.37	5.31	4.41	3.56
Total dir & ovhd exp per bu.	5.17	6.57	5.22	4.16
Less govt & other income	4.91	6.23	4.81	4.00
With labor & management	5.42	6.87	5.25	4.47
Net value per unit	6.18	5.97	6.01	6.53
Machinery cost per acre	83.06	97.63	84.63	80.23
Est. labor hours per acre	1.51	1.63	1.39	1.41



**Crop Enterprise Analysis**  
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**(Farms Sorted By Net Return)**

**Wheat, Spring on Share Rent**

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of fields	63	8	15	10
Number of farms	28	5	5	6
Acres	132.87	133.29	95.90	175.31
Yield per acre (bu.)	58.19	33.21	53.52	75.07
Operators share of yield %	64.85	70.62	60.11	70.00
Value per bu.	6.12	6.59	6.26	6.12
Total product return per acre	231.01	154.55	201.34	321.78
Crop insurance per acre	0.61	0.83	1.86	-
Other crop income per acre	1.36	0.13	2.89	2.03
Gross return per acre	232.98	155.52	206.09	323.81
<b>Direct Expenses</b>				
Seed	18.29	23.75	17.07	16.14
Fertilizer	53.70	65.93	53.22	56.87
Crop chemicals	28.42	27.05	28.46	37.86
Crop insurance	11.03	8.18	11.45	11.34
Drying expense	0.18	-	-	0.53
Fuel & oil	15.55	16.63	10.36	15.89
Repairs	27.02	27.86	24.57	24.53
Custom hire	6.40	12.17	2.24	14.71
Machinery leases	1.40	-	7.28	0.70
Operating interest	3.83	4.35	1.47	4.24
Miscellaneous	4.34	1.30	0.05	0.35
Total direct expenses per acre	170.16	187.21	156.16	183.16
Return over direct exp per acre	62.82	-31.69	49.93	140.65
<b>Overhead Expenses</b>				
Custom hire	0.97	0.01	0.26	0.57
Hired labor	4.86	7.86	3.26	3.70
Machinery leases	1.68	1.82	0.02	4.38
Building leases	0.29	-	0.67	0.13
Farm insurance	3.84	7.16	2.99	3.06
Utilities	2.83	2.48	2.75	3.05
Dues & professional fees	1.23	0.07	1.60	1.28
Interest	2.28	3.45	1.64	2.54
Mach & bldg depreciation	20.65	19.60	24.63	21.16
Miscellaneous	1.83	0.34	1.90	2.55
Total overhead expenses per acre	40.45	42.79	39.71	42.41
Total dir & ovhd expenses per acre	210.60	230.00	195.87	225.57
Net return per acre	22.37	-74.48	10.22	98.24
Government payments	6.18	6.82	5.80	7.01
Net return with govt pmts	28.55	-67.66	16.02	105.25
Labor & management charge	26.84	26.03	26.20	26.44
Net return over lbr & mgt	1.71	-93.69	-10.18	78.81
<b>Cost of Production</b>				
Total direct expense per bu.	4.51	7.98	4.85	3.49
Total dir & ovhd exp per bu.	5.58	9.81	6.09	4.29
Less govt & other income	5.37	9.48	5.76	4.12
With labor & management	6.08	10.59	6.57	4.62
Net value per unit	6.12	6.59	6.26	6.12
Machinery cost per acre	73.34	80.46	67.73	82.30
Est. labor hours per acre	1.24	1.05	1.36	1.13

## EXPLANATORY NOTES FOR LIVESTOCK TABLES

The "Livestock Enterprise Analysis" table shows the average physical production, gross returns, direct costs, overhead costs, and net return per unit. All costs are actual costs; no opportunity costs are included. The "Net Return" to the enterprise is the "Gross Margin" minus the direct and overhead costs. "Net Return" represents the return to the operators and family's unpaid labor, management, and equity. It represents the return to all of the resources, which are owned by the farm family and hence, not purchased or paid a wage. The last section of each livestock table contains both economic and technical efficiency measures, which are particularly useful to individual managers in assessing their performance as compared to their peers.

When there are less than five farms with a particular livestock enterprise, that enterprise is not included in the report. When there is a sufficient number (i.e., more than 24), farms are divided into low 20%, middle 20% and high 20% on the basis of returns to overhead costs. The classification is done separately for each livestock enterprise.

The "Dairy" enterprise contains the information for only the milking herd (which includes dry cows). "Dairy Replacement Heifers" are those heifers kept for replacement into the milking herd. "Dairy Heifers (for sale)" are heifers intended for feeding and sale. "Dairy Steers" includes only steers for feeding. The "Dairy and Replacement Heifers" table includes both "Dairy" and "Dairy Replacement Heifers."

"Lbs. feed per lb. of gain" is the lbs. of total feed divided by total gain. The total feed is calculated by adding total pounds of feed. For grains, these pounds per unit are used: corn, 56; oats, 32; barley, 48; grain sorghum, 56; wheat, 60; and millet, 48. For these roughages, the pounds are calculated by these factors: alfalfa haylage, 0.5; corn silage, 0.33; oatlage, 0.5; and sorghum silage, 0.33; and small grain silage, 0.33.

The calving and weaning percentages are calculated as the number of calves, which are calved and weaned, respectively, divided by the number of cows, which are supposed to bear young.

Rounding of individual items for the report has caused minor discrepancies with the calculated totals.

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**(Farms Sorted By Net Return Per Unit)**

**Beef Cow-Calf -- Average Per Cwt. Produced**

	<b>Avg. Of All Farms</b>		<b>Low20%</b>		<b>40 - 60%</b>		<b>High 20%</b>	
Number of farms	30		6		6		6	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
Beef Calves sold (lb)	33.89	59.14	33.00	58.38	34.06	57.08	43.17	75.80
Transferred out (lb)	66.12	113.54	67.12	115.38	65.94	114.34	56.83	97.11
Cull sales (lb)		32.75		34.06		28.60		24.97
Other income		0.97		0.53		1.01		0.33
Purchased (lb)		-18.80		-28.47		-7.20		-30.83
Transferred in (lb)		-40.27		-32.92		-42.30		-36.20
Inventory change (lb)		16.26		3.42		8.89		41.02
Gross margin		163.59		150.37		160.43		172.19
<b>Direct Expenses</b>								
Protein Vit Minerals (lb.)	14.06	3.79	1.87	0.80	29.00	6.00	2.60	1.10
Creep / Starter (lb.)	14.16	2.32	-	-	45.34	7.42	-	-
Complete Ration (lb.)	13.69	2.02	18.68	3.74	-	-	20.02	2.34
Aftermath Grazing (aum)	0.04	0.60	0.28	4.49	-	-	0.04	0.56
Corn Silage (lb.)	535.18	6.89	1,573.79	17.44	725.68	10.45	301.35	4.19
Hay, Alfalfa (lb.)	106.29	2.60	44.93	0.79	150.87	3.58	81.60	2.47
Hay, Grass (lb.)	1,062.10	20.99	1,396.98	21.96	895.14	18.06	1,110.62	20.54
Pasture (aum)	1.45	20.01	1.64	25.85	1.44	15.52	1.35	20.41
DDGS, dry (lb.)	11.30	1.75	0.12	0.06	35.60	5.55	0.65	0.07
Other feed stuffs (lb)	48.52	1.52	9.35	0.16	67.01	1.04	13.39	1.42
Veterinary		5.51		4.77		9.05		2.06
Supplies		5.00		9.47		5.68		3.04
Fuel & oil		5.85		11.06		5.64		5.18
Repairs		10.09		19.36		8.00		8.99
Custom hire		1.77		5.15		1.72		0.90
Total direct expenses		90.70		125.10		97.70		73.28
Return over direct expense		72.89		25.28		62.73		98.91
<b>Overhead Expenses</b>								
Hired labor		4.23		9.96		1.50		3.90
Farm insurance		2.30		3.53		1.12		2.20
Utilities		2.99		6.89		1.95		2.40
Dues & professional fees		0.86		2.40		0.26		0.85
Interest		2.33		3.53		0.75		4.92
Mach & bldg depreciation		6.81		11.15		5.78		5.75
Miscellaneous		1.36		1.43		0.87		1.53
Total overhead expenses		20.88		38.90		12.23		21.55
Total dir & ovhd expenses		111.58		164.00		109.93		94.83
Net return		52.01		-13.63		50.50		77.36
Labor & management charge		15.30		24.84		10.60		14.82
Net return over lbr & mgt		36.70		-38.47		39.90		62.54
<b>Cost of Production Per Cwt. Produced</b>								
Total direct expense per unit		90.70		125.10		97.70		73.28
Total dir & ovhd expense per unit		111.58		164.00		109.93		94.83
With other revenue adjustments		121.67		187.77		122.04		95.87
With labor and management		136.97		212.61		132.64		110.69
Est. labor hours per unit		1.23		1.78		1.04		1.11
<b>Other Information</b>								
Number of cows		153.0		68.5		233.8		196.4
Pregnancy percentage		92.9		89.1		91.9		92.3
Pregnancy loss percentage		2.8		2.6		3.6		2.5
Culling percentage		17.4		13.6		16.9		14.3
Calving percentage		90.3		86.8		88.6		90.0
Weaning percentage		85.8		76.9		84.3		86.4
Calves sold per cow		0.91		0.77		0.89		0.92
Calf death loss percent		5.3		11.5		4.6		4.4
Cow death loss percent		1.9		4.9		1.6		1.0
Average weaning weight		560		538		559		567
Lb. weaned/exposed female		480		414		471		490
Feed cost per cow		311.08		313.59		343.87		276.09
Avg wgt/ Beef Calves sold		562		543		593		581
Avg price / cwt.		174.51		176.94		167.58		175.59

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**Beef Cow-Calf -- Average Per Cow**

	<b>Avg. Of All Farms</b>		<b>Low20%</b>		<b>40 - 60%</b>		<b>High 20%</b>	
Number of farms	30		6		6		6	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
Beef Calves sold (lb)	168.7	294.40	137.4	243.18	173.2	290.33	224.4	394.07
Transferred out (lb)	329.1	565.17	279.6	480.61	335.4	581.56	295.5	504.86
Cull sales (lb)		163.00		141.87		145.45		129.84
Other income		4.81		2.19		5.15		1.70
Purchased (lb)		-93.58		-118.58		-36.62		-160.30
Transferred in (lb)		-200.45		-137.14		-215.12		-188.20
Inventory change (lb)		80.92		14.23		45.22		213.28
Gross margin		814.27		626.36		815.96		895.25
<b>Direct Expenses</b>								
Protein Vit Minerals (lb.)	70.0	18.86	7.8	3.34	147.5	30.54	13.5	5.72
Creep / Starter (lb.)	70.5	11.53	-	-	230.6	37.72	-	-
Complete Ration (lb.)	68.1	10.07	77.8	15.56	-	-	104.1	12.19
Aftermath Grazing (aum)	0.2	3.00	1.2	18.70	-	-	0.2	2.93
Corn Silage (lb.)	2,663.9	34.28	6,555.3	72.64	3,690.9	53.16	1,566.8	21.80
Hay, Alfalfa (lb.)	529.1	12.96	187.1	3.28	767.3	18.18	424.3	12.84
Hay, Grass (lb.)	5,286.7	104.47	5,818.8	91.48	4,552.8	91.85	5,774.2	106.80
Pasture (aum)	7.2	99.62	6.8	107.68	7.3	78.91	7.0	106.11
DDGS, dry (lb.)	56.3	8.73	0.5	0.24	181.1	28.21	3.4	0.35
Other feed stuffs (lb)	241.5	7.55	38.9	0.66	340.8	5.29	69.6	7.36
Veterinary		27.41		19.86		46.05		10.72
Supplies		24.86		39.45		28.87		15.83
Fuel & oil		29.11		46.08		28.68		26.94
Repairs		50.20		80.63		40.69		46.74
Custom hire		8.79		21.46		8.77		4.66
Total direct expenses		451.46		521.07		496.92		380.98
Return over direct expense		362.81		105.28		319.04		514.27
<b>Overhead Expenses</b>								
Hired labor		21.04		41.51		7.65		20.28
Farm insurance		11.44		14.71		5.68		11.43
Utilities		14.90		28.72		9.93		12.47
Dues & professional fees		4.30		10.01		1.31		4.41
Interest		11.59		14.71		3.82		25.60
Mach & bldg depreciation		33.91		46.44		29.40		29.88
Miscellaneous		6.75		5.97		4.43		7.98
Total overhead expenses		103.94		162.05		62.22		112.06
Total dir & ovhd expenses		555.40		683.12		559.14		493.03
Net return		258.86		-56.77		256.83		402.21
Labor & management charge		76.18		103.47		53.90		77.05
Net return over lbr & mgt		182.69		-160.24		202.93		325.16
<b>Cost of Production Per Cwt. Produced</b>								
Total direct expense per unit		90.70		125.10		97.70		73.28
Total dir & ovhd expense per unit		111.58		164.00		109.93		94.83
With other revenue adjustments		121.67		187.77		122.04		95.87
With labor and management		136.97		212.61		132.64		110.69
Est. labor hours per unit		6.11		7.42		5.27		5.77
<b>Other Information</b>								
Number of cows		153.0		68.5		233.8		196.4
Pregnancy percentage		92.9		89.1		91.9		92.3
Pregnancy loss percentage		2.8		2.6		3.6		2.5
Culling percentage		17.4		13.6		16.9		14.3
Calving percentage		90.3		86.8		88.6		90.0
Weaning percentage		85.8		76.9		84.3		86.4
Calves sold per cow		0.91		0.77		0.89		0.92
Calf death loss percent		5.3		11.5		4.6		4.4
Cow death loss percent		1.9		4.9		1.6		1.0
Average weaning weight		560		538		559		567
Lb. weaned/exposed female		480		414		471		490
Feed cost per cow		311.08		313.59		343.87		276.09
Avg wgt/ Beef Calves sold		562		543		593		581
Avg price / cwt.		174.51		176.94		167.58		175.59

**Livestock Enterprise Analysis**  
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**(Farms Sorted By Net Return Per Unit)**

**Beef Cow-Calf Whole Herd w/backgrounding -- Average Per Cwt. Produced**

	<u>Avg. Of All Farms</u>	
Number of farms	9	
	Quantity	Value
Beef Calves sold (lb)	109.57	168.18
Transferred out (lb)	6.00	8.53
Cull sales (lb)		21.93
Other income		1.20
Purchased (lb)		-16.06
Transferred in (lb)		-8.93
Inventory change (lb)		20.65
Gross margin		195.52
<b>Direct Expenses</b>		
Protein Vit Minerals (lb.)	7.04	2.00
Creep / Starter (lb.)	58.76	2.40
Complete Ration (lb.)	50.31	6.40
Corn (bu.)	0.72	2.30
Corn Silage (lb.)	343.57	5.36
Hay, Alfalfa (lb.)	163.08	4.89
Hay, Grass (lb.)	1,924.49	49.22
Pasture (aum)	1.36	18.97
Peas, Field (lb.)	0.46	3.30
Other feed stuffs (lb)	0.25	0.75
Veterinary		5.00
Supplies		7.73
Fuel & oil		10.83
Repairs		22.77
Hired labor		1.06
Utilities		1.03
Operating interest		1.86
Total direct expenses		145.89
Return over direct expense		49.63
<b>Overhead Expenses</b>		
Farm insurance		3.68
Utilities		2.09
Mach & bldg depreciation		9.78
Miscellaneous		3.89
Total overhead expenses		19.44
Total dir & ovhd expenses		165.33
Net return		30.19
Labor & management charge		21.30
Net return over lbr & mgt		8.89
<b>Cost of Production Per Cwt. Produced</b>		
Total direct expense per unit		145.89
Total dir & ovhd expense per unit		165.33
With other revenue adjustments		145.71
With labor and management		167.02
Est. labor hours per unit		1.42
<b>Other Information</b>		
Number of cows		75.7
Pregnancy percentage		97.0
Pregnancy loss percentage		5.3
Culling percentage		11.7
Calving percentage		91.9
Weaning percentage		84.5
Calves sold per cow		0.87
Calf death loss percent		8.6
Cow death loss percent		4.1
Average weaning weight		549
Lb. weaned/exposed female		464
Feed cost per cow		443.77
Avg wgt/ Beef Calves sold		615
Avg price / cwt.		153.49

**Livestock Enterprise Analysis**  
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**Region 2 - North Central North Dakota, 2013**  
**(Farms Sorted By Net Return Per Unit)**

**Beef Cow-Calf Including Cow-calf w/backgrounding -- Average Per Cow**

	<u>Avg. Of All Farms</u>	
Number of farms	9	
	Quantity	Value
Beef Calves sold (lb)	508.7	780.73
Transferred out (lb)	27.9	39.61
Cull sales (lb)		101.80
Other income		5.59
Purchased (lb)		-74.53
Transferred in (lb)		-41.46
Inventory change (lb)		95.88
Gross margin		907.62
<b>Direct Expenses</b>		
Protein Vit Minerals (lb.)	32.7	9.31
Creep / Starter (lb.)	272.8	11.16
Complete Ration (lb.)	233.6	29.71
Corn (bu.)	3.3	10.69
Corn Silage (lb.)	1,594.9	24.88
Hay, Alfalfa (lb.)	757.0	22.71
Hay, Grass (lb.)	8,933.8	228.47
Pasture (aum)	6.3	88.05
Peas, Field (lb.)	2.1	15.31
Other feed stuffs (lb)	1.2	3.49
Veterinary		23.19
Supplies		26.80
Fuel & oil		50.28
Repairs		105.72
Hired labor		4.94
Machinery leases		9.08
Utilities		4.79
Operating interest		8.66
Total direct expenses		677.23
Return over direct expense		230.39
<b>Overhead Expenses</b>		
Farm insurance		17.08
Utilities		9.69
Mach & bldg depreciation		45.41
Miscellaneous		18.05
Total overhead expenses		90.24
Total dir & ovhd expenses		767.47
Net return		140.15
Labor & management charge		98.89
Net return over lbr & mgt		41.27
<b>Cost of Production Per Cwt. Produced</b>		
Total direct expense per unit		145.89
Total dir & ovhd expense per unit		165.33
With other revenue adjustments		145.71
With labor and management		167.02
Est. labor hours per unit		6.58
<b>Other Information</b>		
Number of cows		75.7
Pregnancy percentage		97.0
Pregnancy loss percentage		5.3
Culling percentage		11.7
Calving percentage		91.9
Weaning percentage		84.5
Calves sold per cow		0.87
Calf death loss percent		8.6
Cow death loss percent		4.1
Average weaning weight		549
Lb. weaned/exposed female		464
Feed cost per cow		443.77
Avg wgt/ Beef Calves sold		615
Avg price / cwt.		153.49

**Livestock Enterprise Analysis**  
**North Dakota Farm Business Management Education**  
**Region 2 - North Central North Dakota, 2013**  
**(Farms Sorted By Net Return Per Unit)**

**Beef Replacement Heifers -- Average Per Head Sold/Trans**

	<u>Avg. Of All Farms</u>	
Number of farms	14	
	Quantity	Value
Beef Replace sold (hd)	0.1	96.92
Transferred out (hd)	0.9	1,388.72
Cull sales (hd)	0.0	14.85
Other income		-
Purchased (hd)	0.0	-39.82
Transferred in (hd)	0.7	-733.02
Inventory change (hd)	-0.2	-155.17
Gross margin		572.47
<b>Direct Expenses</b>		
Creep / Starter (lb.)	37.1	6.08
Complete Ration (lb.)	102.0	12.24
Corn Silage (lb.)	721.4	8.65
Hay, Alfalfa (lb.)	423.5	10.20
Hay, Grass (lb.)	1,471.1	30.33
Pasture (aum)	4.2	60.40
Other feed stuffs (lb)	39.3	11.39
Veterinary		7.78
Supplies		4.50
Fuel & oil		2.90
Repairs		5.48
Custom hire		11.71
Total direct expenses		171.67
Return over direct expense		400.80
<b>Overhead Expenses</b>		
Hired labor		2.47
Utilities		2.31
Mach & bldg depreciation		2.25
Miscellaneous		4.78
Total overhead expenses		11.81
Total dir & ovhd expenses		183.48
Net return		388.99
Labor & management charge		8.57
Net return over lbr & mgt		380.42
Est. labor hours per unit		0.67
<b>Other Information</b>		
No. purchased or trans in		36
Number sold or trans out		46
Average number of head		44
Percentage death loss		0.1
Feed cost/head sold/trans		139.30

**Livestock Enterprise Analysis**  
**North Dakota Farm Business Management Education**  
**Region 2 - North Central North Dakota, 2013**  
**(Farms Sorted By Net Return Per Unit)**

**Beef Backgrounding -- Average Per Cwt. Produced**

	<u>Avg. Of All Farms</u>		<u>40 - 60%</u>		<u>High 20%</u>	
Number of farms	22		5		5	
	Quantity	Value	Quantity	Value	Quantity	Value
Backgnd Beef sold (lb)	419.99	644.74	382.56	553.70	409.95	643.74
Transferred out (lb)	113.36	153.88	199.15	245.84	5.74	9.45
Other income		3.05		1.41		4.27
Purchased (lb)	-11.00	-16.72	-	-	-19.29	-26.13
Transferred in (lb)	-268.89	-461.29	-241.62	-389.16	-158.81	-286.03
Inventory change (lb)	-156.17	-195.08	-241.10	-276.04	-142.11	-194.81
Gross margin		128.58		135.75		150.49
<b>Direct Expenses</b>						
Protein Vit Minerals (lb.)	6.57	1.88	-	-	15.32	4.28
Creep / Starter (lb.)	17.14	2.86	-	-	15.73	2.58
Complete Ration (lb.)	30.05	2.65	15.42	1.73	87.38	7.42
Barley (bu.)	0.96	3.10	1.54	4.19	0.90	2.76
Corn (bu.)	1.60	7.51	2.49	14.24	1.63	5.65
Corn Silage (lb.)	612.53	6.89	1,243.22	14.70	246.35	3.16
Hay, Alfalfa (lb.)	89.08	2.19	171.45	4.29	78.58	2.05
Hay, Grass (lb.)	594.48	12.25	613.52	12.20	338.42	7.48
Oats (bu.)	1.62	4.48	2.95	7.38	-	-
Pasture (aum)	0.28	5.02	0.46	12.59	0.34	2.41
DDGS, dry (lb.)	31.02	4.33	-	-	8.26	1.35
Other feed stuffs (lb)	100.91	0.89	264.11	2.00	-	-
Veterinary		1.22		2.25		0.55
Supplies		3.47		4.24		1.35
Repairs		4.34		4.41		0.81
Custom hire		0.79		-		-
Livestock leases		0.35		-		-
Marketing		1.72		1.02		1.37
Total direct expenses		65.94		85.20		43.21
Return over direct expense		62.64		50.55		107.28
<b>Overhead Expenses</b>						
Hired labor		2.49		2.40		0.10
Farm insurance		1.25		1.37		0.15
Utilities		1.62		1.79		0.19
Mach & bldg depreciation		2.93		2.43		0.35
Miscellaneous		1.44		1.88		0.48
Total overhead expenses		9.74		9.87		1.25
Total dir & ovhd expenses		75.68		95.07		44.46
Net return		52.91		40.68		106.03
Labor & management charge		7.00		5.19		3.05
Net return over lbr & mgt		45.91		35.49		102.98
<b>Cost of Production Per Cwt. Produced</b>						
Total direct expense per unit		137.99		128.76		131.33
Total dir & ovhd expense per unit		139.82		130.45		131.63
With other revenue adjustments		139.82		130.45		131.63
With labor and management		141.13		131.35		132.36
Est. labor hours per unit		0.63		0.40		0.22
<b>Other Information</b>						
No. purchased or trans in		80		73		69
Number sold or trans out		121		131		118
Percentage death loss		0.3		-		0.2
Avg. daily gain (lb.)		1.10		0.86		1.28
Lb. of conc / lb. of gain		2.73		3.23		2.61
Lb. of feed / lb. of gain		12.61		17.87		7.60
Feed cost per cwt. of gain		54.05		73.30		39.14
Feed cost per head		52.17		72.34		62.65
Avg wgt / Backgnd Beef sold		663		684		715
Avg sales price / cwt.		153.51		144.74		157.03



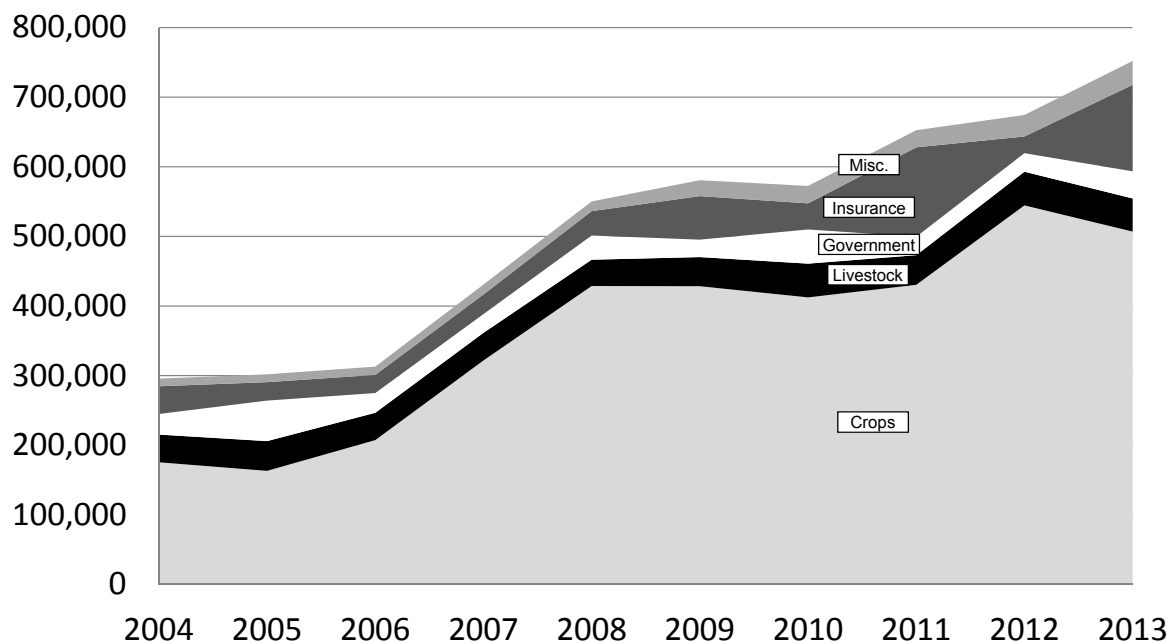
**Livestock Enterprise Analysis**  
**North Dakota Farm Business Management Education**  
**Region 2 - North Central North Dakota, 2013**  
**(Farms Sorted By Net Return Per Unit)**

**Beef Backgrounding -- Average Per Head**

	<b>Avg. Of All Farms</b>		<b>40 - 60%</b>		<b>High 20%</b>	
Number of farms	22		5		5	
	Quantity	Value	Quantity	Value	Quantity	Value
Backgnd Beef sold (lb)	405.4	622.29	377.5	546.45	656.2	1,030.38
Transferred out (lb)	109.4	148.52	196.5	242.62	9.2	15.12
Other income		2.94		1.39		6.83
Purchased (lb)	-10.6	-16.14	-	-	-30.9	-41.82
Transferred in (lb)	-259.5	-445.22	-238.5	-384.06	-254.2	-457.82
Inventory change (lb)	-150.7	-188.29	-237.9	-272.43	-227.5	-311.82
Gross margin		124.11		133.98		240.88
<b>Direct Expenses</b>						
Protein Vit Minerals (lb.)	6.3	1.81	-	-	24.5	6.85
Creep / Starter (lb.)	16.5	2.76	-	-	25.2	4.13
Complete Ration (lb.)	29.0	2.56	15.2	1.70	139.9	11.87
Barley (bu.)	0.9	3.00	1.5	4.13	1.4	4.42
Corn (bu.)	1.5	7.25	2.5	14.05	2.6	9.04
Corn Silage (lb.)	591.2	6.65	1,226.9	14.50	394.3	5.06
Hay, Alfalfa (lb.)	86.0	2.11	169.2	4.23	125.8	3.28
Hay, Grass (lb.)	573.8	11.82	605.5	12.04	541.7	11.97
Oats (bu.)	1.6	4.32	2.9	7.28	-	-
Pasture (aum)	0.3	4.84	0.5	12.42	0.6	3.86
DDGS, dry (lb.)	29.9	4.18	-	-	13.2	2.17
Other feed stuffs (lb)	97.4	0.86	260.7	1.97	-	-
Veterinary		1.18		2.22		0.87
Supplies		1.29		2.79		1.05
Fuel & oil		2.06		1.39		1.10
Repairs		4.19		4.35		1.29
Custom hire		0.76		-		-
Livestock leases		0.34		-		-
Marketing		1.66		1.00		2.20
Total direct expenses		63.64		84.09		69.16
Return over direct expense		60.46		49.89		171.71
<b>Overhead Expenses</b>						
Hired labor		2.41		2.37		0.15
Utilities		1.57		1.77		0.30
Mach & bldg depreciation		2.83		2.40		0.55
Miscellaneous		2.59		3.21		0.99
Total overhead expenses		9.40		9.74		2.00
Total dir & ovhd expenses		73.04		93.83		71.16
Net return		51.06		40.15		169.71
Labor & management charge		6.76		5.13		4.88
Net return over lbr & mgt		44.31		35.02		164.83
<b>Cost of Production Per Cwt. Produced</b>						
Total direct expense per unit		137.99		128.76		131.33
Total dir & ovhd expense per unit		139.82		130.45		131.63
With other revenue adjustments		139.82		130.45		131.63
With labor and management		141.13		131.35		132.36
Est. labor hours per unit		0.61		0.39		0.36
<b>Other Information</b>						
No. purchased or trans in		80		73		69
Number sold or trans out		121		131		118
Percentage death loss		0.3		-		0.2
Avg. daily gain (lb.)		1.10		0.86		1.28
Lb. of conc / lb. of gain		2.73		3.23		2.61
Lb. of feed / lb. of gain		12.61		17.87		7.60
Feed cost per cwt. of gain		54.05		73.30		39.14
Feed cost per head		52.17		72.34		62.65
Avg wgt / Backgnd Beef sold		663		684		715
Avg sales price / cwt.		153.51		144.74		157.03

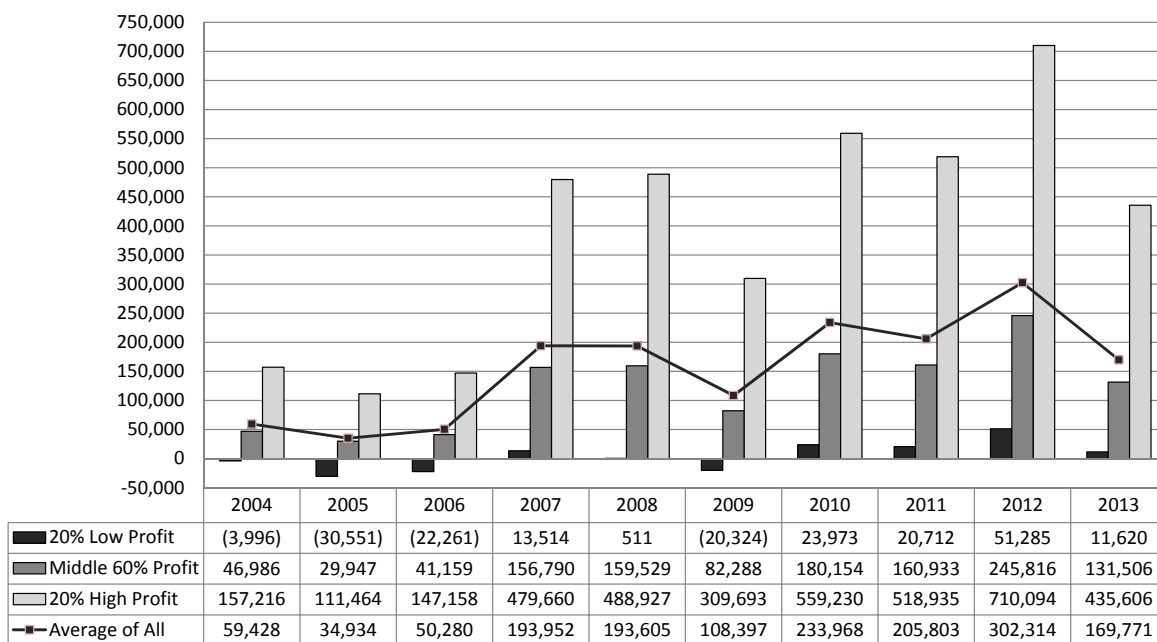
## Figure 1. Gross Cash Income Per Farm

N.D. Farm Business Management Education Program – North Central Region



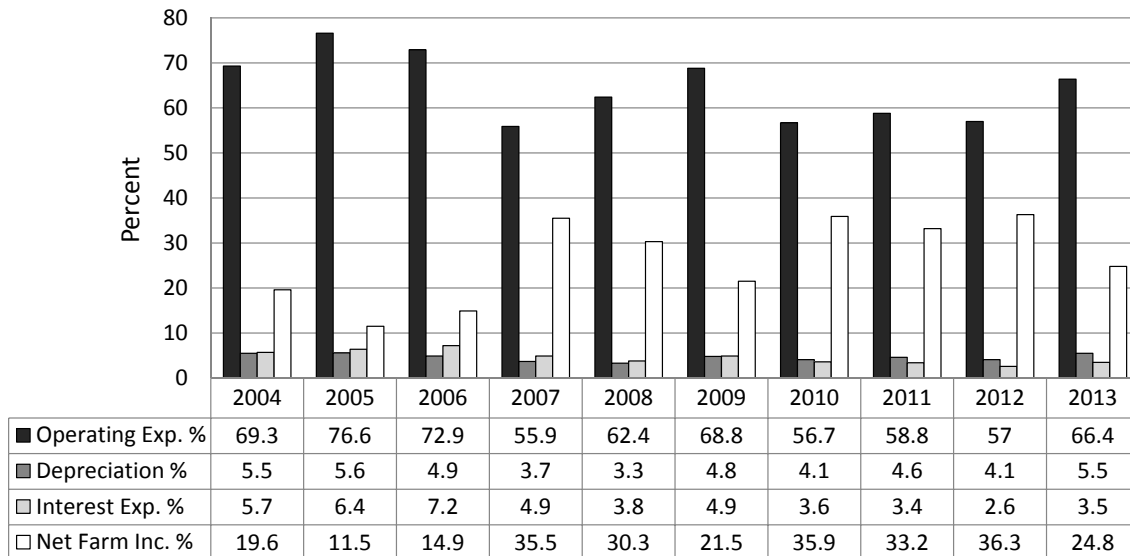
## Figure 2. Net Farm Income (Accrual) Per Farm

N.D. Farm Business Management Education Program – North Central Region



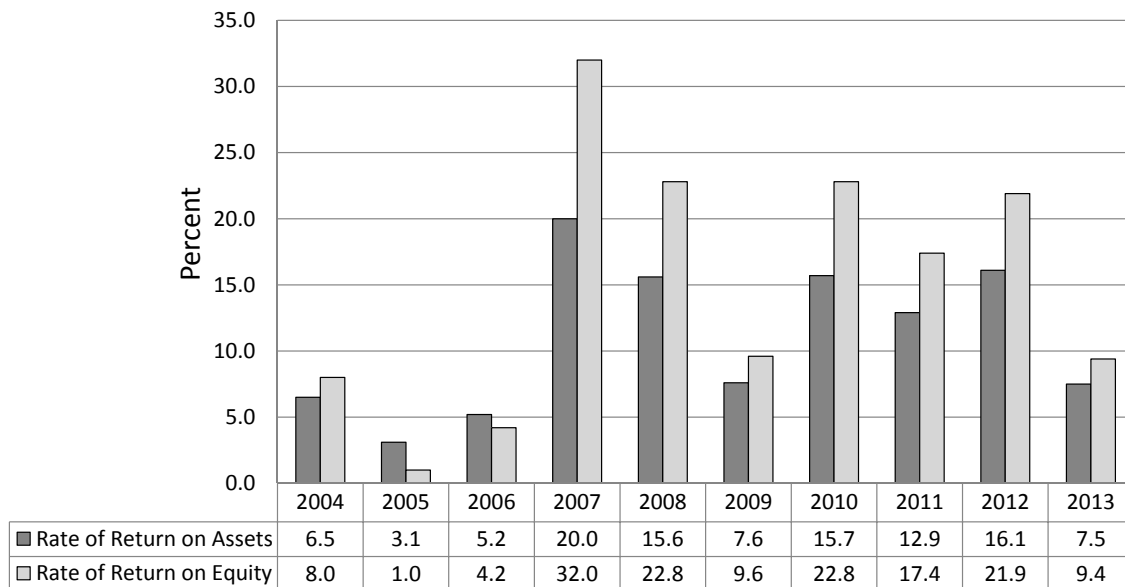
### Figure 3. Financial Efficiency Measures (As Percent of Gross Revenue)

N.D. Farm Business Management Education Program – North Central Region



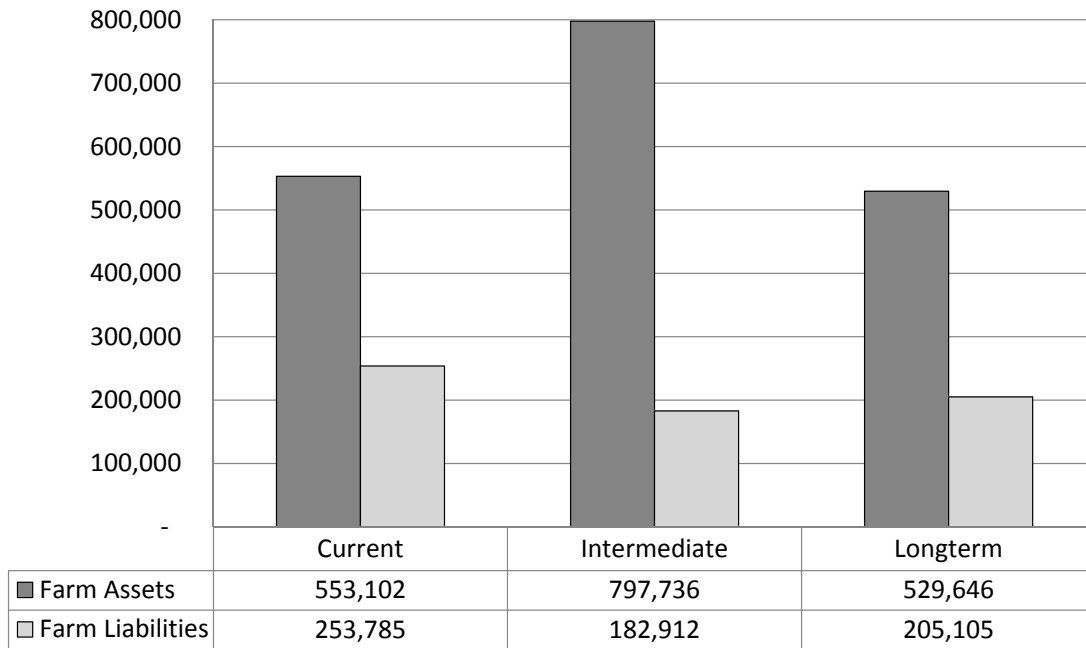
### Figure 4. Profitability Measures Per Farm

N.D. Farm Business Management Education Program – North Central Region



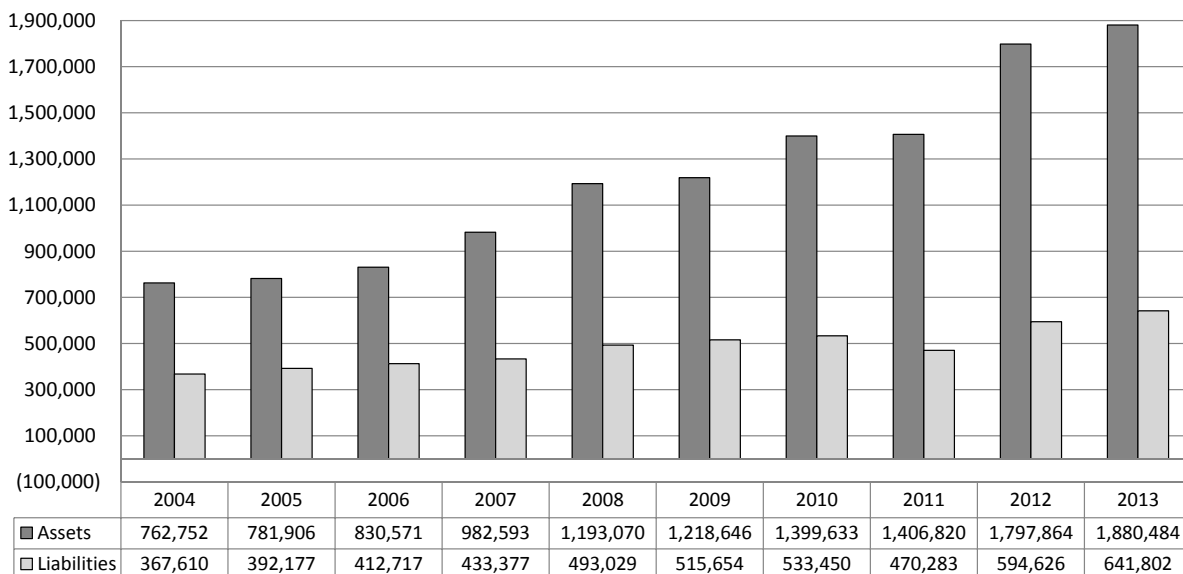
## Figure 5. Assets and Liabilities Per Farm, 2013

N.D. Farm Business Management Education Program – North Central Region



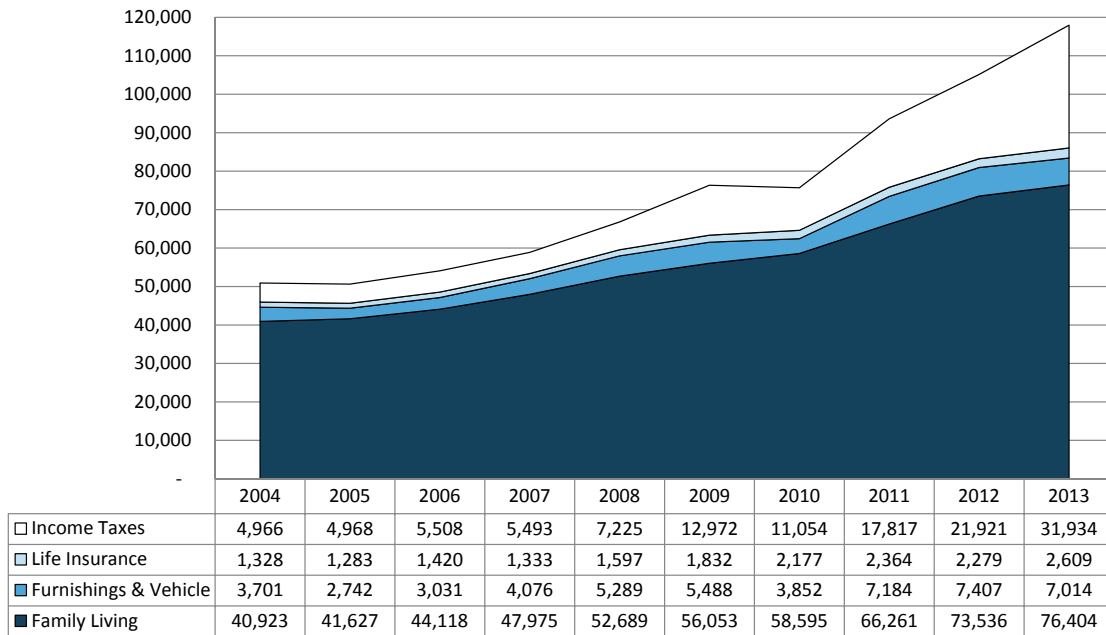
## Figure 6. Total Farm Assets and Liabilities

N.D. Farm Business Management Education Program – North Central Region



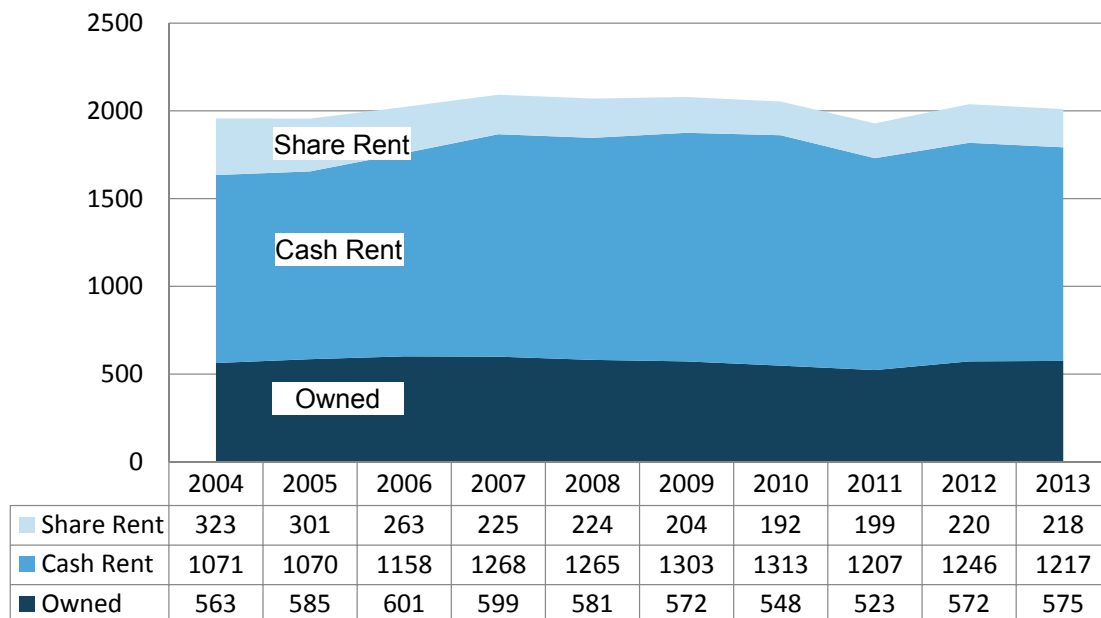
## Figure 7. Household and Personal Expenses

N.D. Farm Business Management Education Program – North Central Region



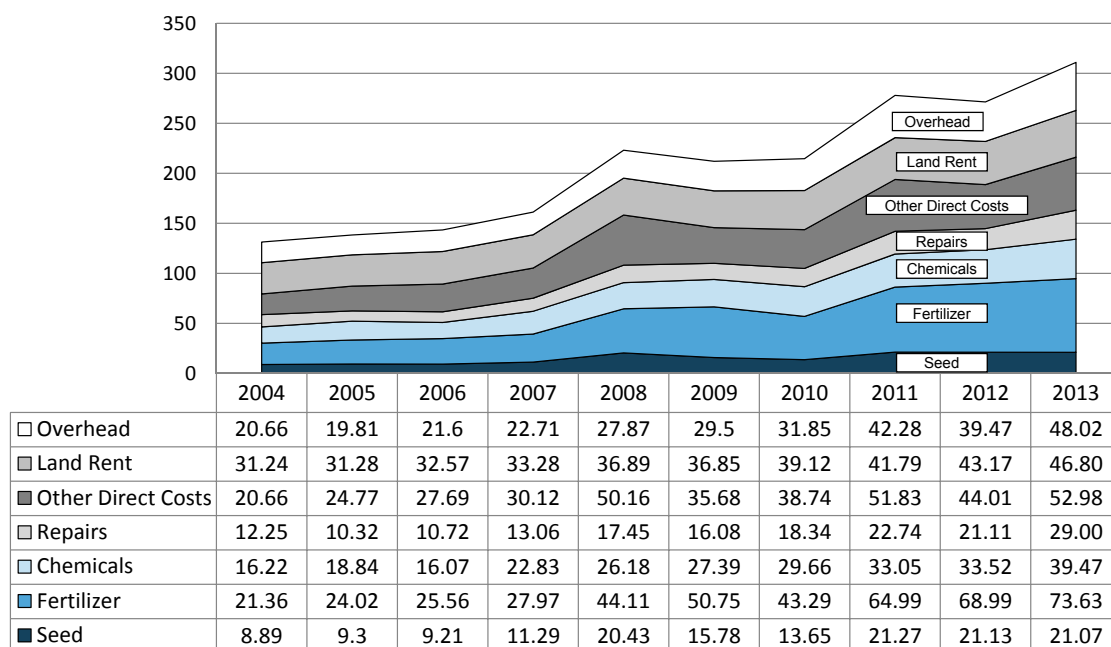
## Figure 8. Crop Acreage Per Farm

N.D. Farm Business Management Education Program – North Central Region



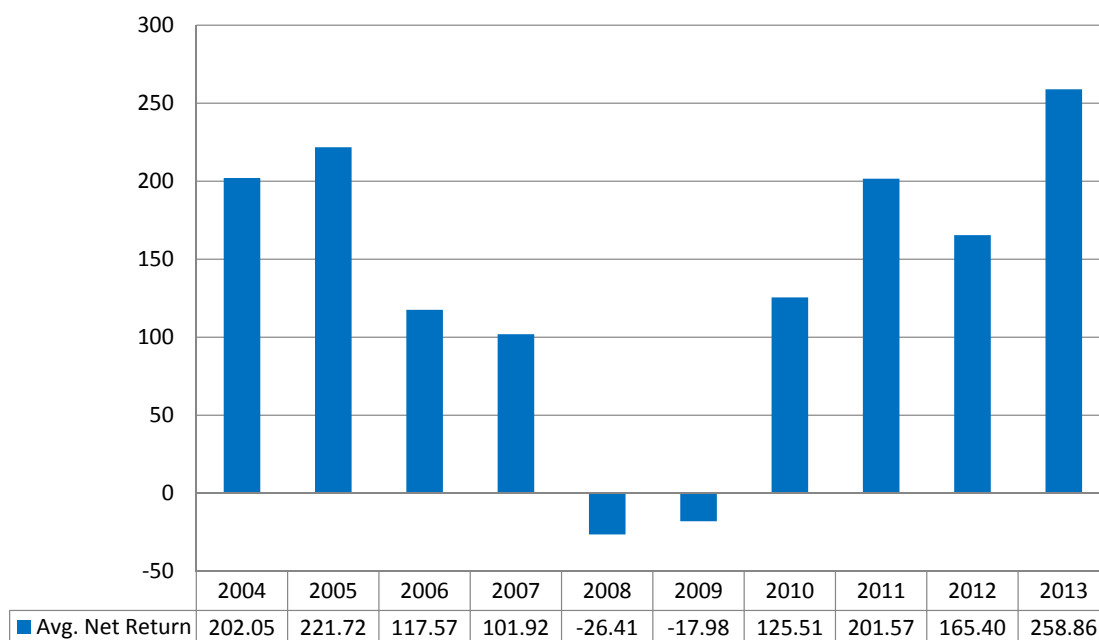
## Figure 9. Spring Wheat Costs Per Acre

N.D. Farm Business Management Education Program – South Central Region



## Figure 10. Average Net Return Per Beef Cow

N.D. Farm Business Management Education Program – North Central Region





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