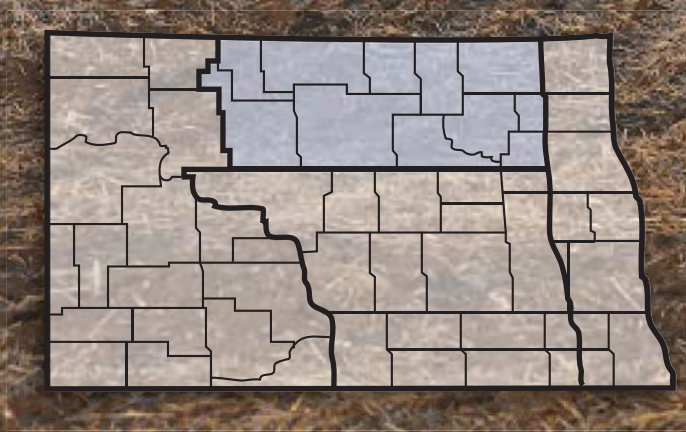


# **2016 ANNUAL REPORT**

## **North Central North Dakota**

North Dakota Farm and Ranch Business  
Management Education



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



## North Dakota Department of Career and Technical Education

Mr. Wayne Kutzer, State Director

### Board Members

Dr. Brian Duchscherer, Chairperson	Carrington
Ms. Debby Marshall, Vice Chairperson	Towner
Ms. Kirsten Baesler	Bismarck
Ms. Cheri Giesen	Bismarck
Mr. Jeff Lind	Mandan
Ms. Sonia Meehl	Oakes
Ms. Val Moritz	Valley City
Mr. David Richter	Williston
Dr. Mark Hagerott	Bismarck

---

The N.D. Farm Management Education Association recognizes the listed organizations for their contribution toward the production and distribution of the N.D. Farm and Ranch Business Management Regional and State Averages for 2016.

THANK YOU TO ALL OF OUR STARS for sponsoring the averages:

DISTINGUISHED STAR PARTNER (\$25,000) – Twin Cities Region Northland Ford Dealers

4 STAR PARTNER (\$15,000) – Asgrow/DEKALB/Channel/REA/Monsanto, CHS Foundation

3 STAR PARTNER (\$10,000) – Farmers Union Insurance/ND Farmers Union

2 STAR PARTNER (\$6,000) – CHS/Dakota Plains Ag, Wheat Growers, Nodak Mutual Insurance, ADM, International Certification Services, Thunder Seed

1 STAR PARTNERS (\$3,000) -- PROSEED, ND Farm Bureau, RDO Equipment, Wilbur-Ellis, Lynnes Welding Training, DuPont Pioneer, Enbridge, CF Industries, First International Bank, IRONCLAD Marketing, International Brotherhood of Electrical Workers, ND Building Trades Unions

# NORTH DAKOTA FARM BUSINESS MANAGEMENT EDUCATION

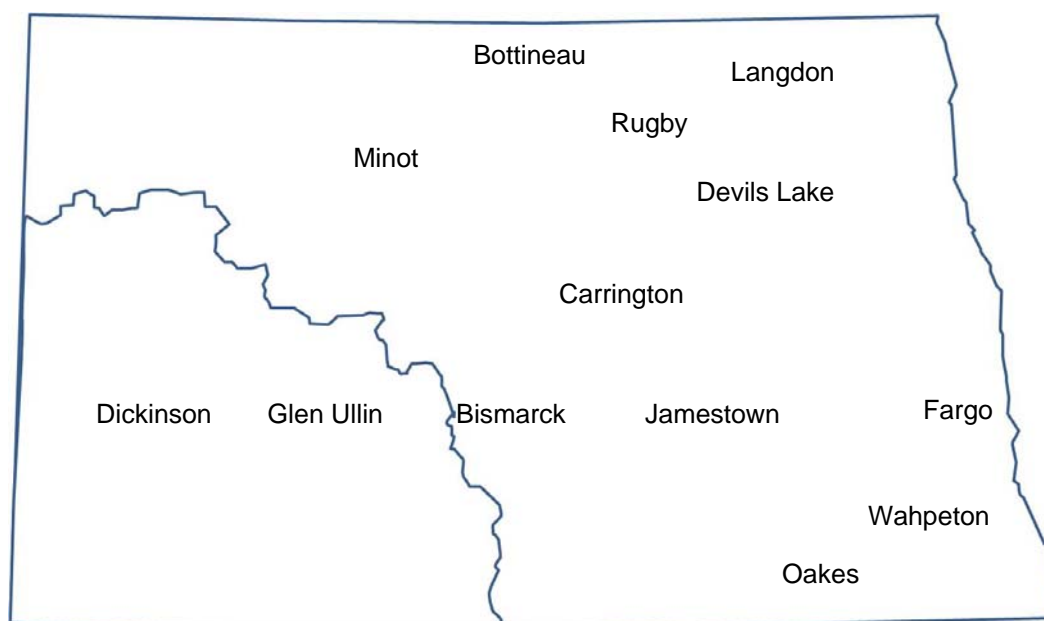
## REGION 2 – NORTH CENTRAL AVERAGES 2016 ANNUAL REPORT

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

<u>School</u>	<u>Instructor</u>
Dakota College at Bottineau .....	Rodney Armstrong
Dakota College at Bottineau - Minot .....	BillieJo Shae
Dakota College at Bottineau - Rugby .....	Allen Graner
Lake Region State College - Devils Lake.....	Jason Fewell
	Jeremiah Halley
Lake Region State College - Langdon .....	Allison Thompson

This report was made possible by the farm families who cooperated with their farm management instructors in getting the records for 2016 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



# 2016 North Central Report

## North Dakota Farm Business Management Education

Introduction .....	1
Explanatory Notes for the Farm Operators' Reports .....	2
Farm Income Statement .....	7
Inventory Changes .....	9
Depreciation.....	10
Profitability Measures .....	11
Liquidity and Repayment Capacity Measures.....	12
Balance Sheet at Cost Values .....	13
Statement of Cash Flows .....	14
Financial Standards Measures .....	15
Crop Production and Marketing Summary .....	16
Household and Personal Expenses .....	17
Operator and Labor Information .....	18
Nonfarm Summary.....	19
Financial Summary (sorted by gross farm income) .....	20
Financial Summary (sorted by age of operator).....	21
Financial Summary (sorted by farm type) .....	22
Explanatory Notes for Crop Tables.....	23
Barley on Owned Land .....	24
Barley on Cash Rent.....	25
Beans, Pinto on Owned Land .....	26
Beans, Pinto on Cash Rent .....	27
Canola on Owned Land .....	28
Canola on Cash Rent .....	29
Corn on Owned Land.....	30
Corn on Cash Rent .....	31
Corn Silage on Owned Land .....	32
CRP on Owned Land .....	33
Fallow on Owned Land .....	34
Flax on Owned Land.....	35
Flax on Cash Rent .....	36
Hay, Alfalfa on Owned Land .....	37
Hay, Alfalfa on Cash Rent.....	38
Hay, Grass on Owned Land.....	39
Hay, Grass on Cash Rent .....	40
Hay, Mixed Alfalfa/Grass on Cash Rent .....	41
Hay, Small Grain on Owned Land .....	42
Pasture on Owned Land .....	43
Pasture on Cash Rent .....	44
Peas, Field on Owned Land.....	45
Peas, Field on Cash Rent .....	46
Soybeans on Owned Land .....	47
Soybeans on Cash Rent .....	48
Soybeans on Share Rent.....	49
Sunflowers on Owned Land.....	50

Sunflowers on Cash Rent .....	51
Wheat, Durum on Owned Land .....	52
Wheat, Durum on Cash Rent.....	53
Wheat, Spring on Owned Land .....	54
Wheat, Spring on Cash Rent .....	55
Wheat, Spring on Share Rent .....	56
Explanatory Notes for Livestock Tables .....	57
Beef Cow-Calf – Average Per Cwt. Produced .....	58
Beef Cow-Calf – Average Per Cow .....	59
Beef Cow-Calf Whole Herd w/backgrounding – Average Per Cwt. Produced .....	60
Beef Cow-Calf Whole Herd w/backgrounding – Average Per Cow .....	61
Beef Replacement Heifers – Average Per Head .....	62
Beef Replacement Heifers – Average Per Head Sold/Trans .....	63
Beef, Background Beef – Average Per Cwt. Produced .....	64
Beef, Background Beef – Average Per Head .....	65
Figure 1. Gross Cash Income per Farm .....	66
Figure 2. Net Farm Income (Accrual) per Farm .....	66
Figure 3. Financial Efficiency Measures .....	67
Figure 4. Profitability Measure per Farm .....	67
Figure 5. Assets and Liabilities per Farm, 2016 .....	68
Figure 6. Total Farm Assets and Liabilities .....	68
Figure 7. Household and Personal Expenses .....	69
Figure 8. Crop Acreage per Farm .....	69
Figure 9. Spring Wheat Costs per Acre .....	70
Figure 10. Average Net Return per Beef Cow .....	70

## 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 2016 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 28th 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 – North Central, 3 – South Central and 4 - Western identified on the North Dakota map. Farms in Region 1 – Red River Valley 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, 2016**  
**(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	165	33	33	33
<b>Cash Farm Income</b>				
Barley	51,969	34,298	39,224	115,508
Beans, Black Turtle Beans,	303	1,517	-	-
Navy	1,383	-	-	6,916
Beans, Pinto	16,862	7,236	7,647	50,308
Canola	63,824	42,477	72,488	84,533
Corn	26,165	11,061	24,050	49,042
Corn Silage	76	-	-	379
Flax	5,858	3,572	7,982	11,583
Hay, Grass	627	55	-	2,810
Hay, Mixed	75	-	76	179
Lentils	273	-	-	-
Oats	407	68	-	1,600
Peas, Field	11,048	5,487	4,224	22,163
Potatoes	1,361	-	-	6,803
Safflower	101	504	-	-
Soybeans	138,256	51,163	152,822	273,959
Sunflowers	9,979	3,789	-	15,878
Sunflowers, Confectionary	1,163	3,497	-	2,317
Wheat, Durum	6,105	10,329	1,159	8,609
Wheat, Spring	110,264	55,373	103,698	190,697
Wheat, Winter	1,755	-	-	5,914
Soybeans, Food	1,800	-	-	6,686
Miscellaneous crop income	188	244	136	-
Beef Cow-Calf, Beef Calves	24,507	47,425	17,156	6,490
Beef Replacement Heifers	2,264	3,478	-	4,793
Beef Backgrounding	6,421	11,119	-	-
Beef Finishing	382	56	-	-
Beef Stockers	364	1,820	-	-
Cull breeding livestock	3,364	6,011	1,603	-
Misc. livestock income	848	112	238	2,954
Crop government payments	44,468	24,468	44,207	73,157
CRP payments	1,919	1,017	1,177	3,353
Other government payments	10,035	10,933	7,346	16,607
Custom work income	8,375	1,633	11,638	17,862
Patronage dividends, cash	11,868	8,134	12,463	20,548
Crop insurance income	32,215	23,625	30,145	44,385
Property insurance income	1,903	1,918	3,562	2,143
Sale of resale items	298	449	-	969
Livestock insurance inc	42	-	112	45
Other farm income	10,409	6,628	10,404	12,488
Gross Cash Farm Income	609,499	379,496	553,559	1,061,680

**Farm Income Statement (continued)**  
**North Dakota Farm Business Management Education**  
**Region 2 - North Central North Dakota, 2016**  
**(Farms Sorted By Net Farm Income)**

	<u>Avg. Of</u> <u>All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	165	33	33	33
<b>Cash Farm Expense</b>				
Seed	82,030	50,041	79,160	144,884
Fertilizer	81,476	68,019	70,728	131,393
Crop chemicals	61,010	48,473	49,344	107,264
Crop insurance	27,651	14,910	29,073	42,864
Drying expense	712	881	125	1,312
Storage	243	14	-	516
Crop marketing	324	142	92	1,060
Crop miscellaneous	1,171	1,421	829	2,371
Consultants	1,727	1,798	1,111	4,006
Feeder livestock purchase	1,652	3,895	133	-
Purchased feed	4,729	10,464	2,949	1,204
Breeding fees	103	69	114	-
Veterinary	1,541	2,663	1,151	285
Supplies	1,609	2,056	1,502	289
Grazing fees	117	585	-	-
Livestock marketing	140	364	87	-
Interest	29,507	30,011	26,072	40,880
Fuel & oil	21,129	15,813	21,010	30,703
Repairs	45,133	42,073	41,292	67,299
Custom hire	14,035	13,458	9,767	20,718
Hired labor	13,921	10,121	11,073	26,715
Land rent	73,259	47,760	61,827	132,020
Machinery leases	8,630	11,857	6,287	17,455
Building leases	805	242	308	2,113
Real estate taxes	4,164	3,958	3,442	5,528
Farm insurance	8,812	7,091	6,994	14,132
Utilities	6,236	5,411	5,260	9,942
Dues & professional fees	1,629	2,109	1,223	2,349
Purchase of resale items	1,202	364	-	1,313
Miscellaneous	6,033	5,374	4,043	9,391
Total cash expense	500,733	401,437	434,994	818,007
Net cash farm income	108,766	-21,941	118,564	243,674
<b>Inventory Changes</b>				
Prepays and supplies	1,633	6,651	-6,707	8,537
Accounts receivable	5,959	16,897	6,300	-16,530
Hedging accounts	1,597	-88	-1,361	10,639
Other current assets	-368	-	-639	-998
Crops and feed	75,484	6,338	26,501	233,400
Market livestock	-3,190	-6,694	2,624	-2,968
Breeding livestock	639	-1,314	72	1,408
Other assets	602	-1,271	671	-535
Accounts payable	4,592	13,360	10,528	-5,126
Accrued interest	655	-712	-532	4,200
Total inventory change	87,604	33,168	37,457	232,028
Net operating profit	196,370	11,227	156,022	475,702
<b>Depreciation</b>				
Machinery and equipment	-54,493	-34,478	-53,371	-85,454
Titled vehicles	-5,115	-4,425	-3,355	-6,751
Buildings and improvements	-3,517	-2,279	-1,008	-6,350
Total depreciation	-63,125	-41,181	-57,734	-98,554
Net farm income from operations	133,245	-29,954	98,288	377,147
Gain or loss on capital sales	518	3,283	137	-362
Net farm income	133,763	-26,671	98,425	376,785

**Inventory Changes**  
**North Dakota Farm Business Management Education**  
**Region 2 - North Central North Dakota, 2016**  
**(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	165	33	33	33
Net cash farm income	108,766	-21,941	118,564	243,674
<b>Crops and Feed</b>				
Ending inventory	405,111	178,808	287,444	885,006
Beginning inventory	329,627	172,470	260,943	651,606
Inventory change	75,484	6,338	26,501	233,400
<b>Market Livestock</b>				
Ending inventory	25,357	42,462	14,404	6,066
Beginning inventory	28,547	49,155	11,780	9,035
Inventory change	-3,190	-6,694	2,624	-2,968
<b>Accts Receivable</b>				
Ending inventory	26,282	29,632	22,302	25,440
Beginning inventory	20,322	12,734	16,002	41,970
Inventory change	5,959	16,897	6,300	-16,530
<b>Prepaid Expenses and Supplies</b>				
Ending inventory	44,308	18,060	33,805	116,044
Beginning inventory	42,675	11,408	40,512	107,507
Inventory change	1,633	6,651	-6,707	8,537
<b>Hedging Activities</b>				
Ending inventory	3,645	135	1,679	12,593
Withdrawals	4,605	-	3,742	19,051
Beginning inventory	4,023	135	4,240	11,973
Deposits	2,630	88	2,542	9,032
Gain or loss	1,597	-88	-1,361	10,639
<b>Other Current Assets</b>				
Ending inventory	718	-	-	111
Beginning inventory	1,086	-	639	1,109
Inventory change	-368	-	-639	-998
<b>Breeding Livestock</b>				
Ending inventory	69,918	138,784	43,275	15,745
Capital sales	3,761	1,895	2,251	605
Beginning inventory	66,697	132,646	36,654	14,079
Capital purchases	6,343	9,347	8,799	864
Depreciation, capital adjust	639	-1,314	72	1,408
<b>Other Capital Assets</b>				
Ending inventory	62,332	39,299	59,164	97,488
Capital sales	952	423	1,324	1,747
Beginning inventory	58,655	38,608	54,576	92,030
Capital purchases	4,026	2,385	5,241	7,740
Depreciation, capital adjust	602	-1,271	671	-535
<b>Accounts Payable</b>				
Beginning inventory	22,002	29,964	23,276	34,203
Ending inventory	17,410	16,603	12,748	39,329
Inventory change	4,592	13,360	10,528	-5,126
<b>Accrued Interest</b>				
Beginning inventory	14,111	14,494	11,175	20,640
Ending inventory	13,456	15,206	11,707	16,439
Inventory change	655	-712	-532	4,200
Total inventory change	87,604	33,168	37,457	232,028
Net operating profit	196,370	11,227	156,022	475,702

**Depreciation**  
**North Dakota Farm Business Management Education**  
**Region 2 - North Central North Dakota, 2016**  
**(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	165	33	33	33
Net operating profit	196,370	11,227	156,022	475,702
<b>Machinery and Equipment</b>				
Ending inventory	611,898	393,598	600,539	1,023,004
Capital sales	7,745	3,850	12,107	6,425
Beginning inventory	620,359	403,012	625,990	1,003,585
Capital purchases	53,778	28,914	40,027	111,297
Depreciation, capital adjust.	-54,493	-34,478	-53,371	-85,454
<b>Titled Vehicles</b>				
Ending inventory	41,158	37,620	31,939	58,643
Capital sales	1,357	1,447	1,939	957
Beginning inventory	42,255	38,603	34,421	54,985
Capital purchases	5,375	4,889	2,811	11,365
Depreciation, capital adjust.	-5,115	-4,425	-3,355	-6,751
<b>Buildings and Improvements</b>				
Ending inventory	114,922	56,470	48,060	262,546
Capital sales	321	1,000	606	-
Beginning inventory	110,228	55,273	47,777	253,256
Capital purchases	8,532	4,475	1,897	15,640
Depreciation, capital adjust.	-3,517	-2,279	-1,008	-6,350
Total depreciation, capital adj.	-63,125	-41,181	-57,734	-98,554
Net farm income from operations	133,245	-29,954	98,288	377,147
Gain or loss on capital sales	518	3,283	137	-362
Net farm income	133,763	-26,671	98,425	376,785



---

**Profitability Measures**  
**North Dakota Farm Business Management Education**  
**Region 2 - North Central North Dakota, 2016**  
**(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	165	33	33	33
<b>Profitability (assets valued at cost)</b>				
Net farm income from operations	133,245	-29,954	98,288	377,147
Rate of return on assets	5.9 %	-2.6 %	5.1 %	10.5 %
Rate of return on equity	7.2 %	-11.3 %	5.8 %	13.7 %
Operating profit margin	16.1 %	-9.1 %	13.3 %	25.8 %
Asset turnover rate	36.7 %	29.1 %	38.2 %	40.6 %
Farm interest expense	28,852	30,724	26,604	36,679
Value of operator lbr and mgmt.	52,146	35,156	47,282	82,017
Return on farm assets	109,951	-34,386	77,610	331,810
Average farm assets	1,859,149	1,300,827	1,530,710	3,162,514
Return on farm equity	81,099	-65,110	51,006	295,131
Average farm equity	1,121,938	578,361	879,977	2,147,939
Value of farm production	683,227	378,642	585,284	1,284,346

**Liquidity & Repayment Capacity Measures**  
**North Dakota Farm Business Management Education**  
**Region 2 - North Central North Dakota, 2016**  
**(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	165	33	33	33
<b>Liquidity</b>				
Current ratio	1.80	1.06	1.52	2.39
Working capital	255,812	17,222	145,670	708,192
Working capital to gross inc	37.0 %	4.4 %	24.8 %	55.0 %
Current assets	575,211	301,742	426,828	1,216,672
Current liabilities	319,398	284,521	281,158	508,480
Gross revenues (accrual)	690,811	393,365	588,366	1,286,863
<b>Repayment capacity</b>				
Net farm income from operations	133,245	-29,954	98,288	377,147
Depreciation	63,125	41,181	57,734	98,554
Personal income	35,806	43,065	31,486	45,830
Family living/owner withdrawals	-62,164	-53,589	-54,343	-87,567
Cash discrepancy	-15	40	-103	-34
Payments on personal debt	-4,213	-5,040	-4,194	-5,112
Income taxes paid	-13,009	-3,647	-10,475	-29,409
Interest on term debt	18,994	18,935	17,080	24,439
Capital debt repayment capacity	171,784	10,951	135,576	423,883
Scheduled term debt payments	-85,127	-76,629	-73,000	-124,900
Capital debt repayment margin	86,656	-65,678	62,577	298,983
Cash replacement allowance	-25,708	-11,763	-29,085	-44,786
Replacement margin	60,948	-77,441	33,491	254,197
Term debt coverage ratio	2.02	0.14	1.86	3.39
Replacement coverage ratio	1.55	0.12	1.33	2.50

**Balance Sheet at Cost Values**  
**North Dakota Farm Business Management Education**  
**Region 2 - North Central North Dakota, 2016**  
**(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	165	33	33	33
<b>Assets</b>				
Current Farm Assets				
Cash and checking balance	69,790	32,647	67,194	171,412
Prepaid expenses & supplies	44,308	18,060	33,805	116,044
Growing crops	423	-	-	-
Accounts receivable	26,282	29,632	22,302	25,440
Hedging accounts	3,645	135	1,679	12,593
Crops held for sale or feed	405,111	178,808	287,444	885,006
Market livestock held for sale	25,357	42,462	14,404	6,066
Other current assets	295	-	-	111
Total current farm assets	575,211	301,742	426,828	1,216,672
Intermediate Farm Assets				
Breeding livestock	69,918	138,784	43,275	15,745
Machinery and equipment	611,898	393,598	600,539	1,023,004
Titled vehicles	41,158	37,620	31,939	58,643
Other intermediate assets	40,950	20,781	37,204	62,829
Total intermediate farm assets	763,925	590,784	712,957	1,160,222
Long Term Farm Assets				
Farm land	431,134	354,288	331,568	623,216
Buildings and improvements	114,922	56,470	48,060	262,546
Other long-term assets	21,381	18,518	21,959	34,659
Total long-term farm assets	567,438	429,276	401,588	920,421
Total Farm Assets	1,906,573	1,321,802	1,541,373	3,297,315
Total Nonfarm Assets	286,755	186,143	220,668	485,415
Total Assets	2,193,328	1,507,945	1,762,041	3,782,731
<b>Liabilities</b>				
Current Farm Liabilities				
Accrued interest	13,456	15,206	11,707	16,439
Accounts payable	17,410	16,603	12,748	39,329
Current notes	225,886	207,432	208,948	354,892
Principal due on term debt	62,646	45,280	47,754	97,819
Total current farm liabilities	319,398	284,521	281,158	508,480
Total intermediate farm liabs	171,110	150,461	174,924	223,543
Total long term farm liabilities	250,357	319,513	177,252	276,039
Total farm liabilities	740,865	754,495	633,333	1,008,062
Total nonfarm liabilities	62,565	49,215	65,468	76,750
Total liabilities	803,430	803,711	698,801	1,084,812
Net worth (farm and nonfarm)	1,389,897	704,235	1,063,240	2,697,918
Net worth change	100,027	-21,630	66,432	310,821
Percent net worth change	8 %	-3 %	7 %	13 %
<b>Ratio Analysis</b>				
Current farm liabilities / assets	56 %	94 %	66 %	42 %
Intermediate farm liab. / assets	22 %	25 %	25 %	19 %
Long term farm liab. / assets	44 %	74 %	44 %	30 %
Total debt to asset ratio	37 %	53 %	40 %	29 %

**Statement Of Cash Flows**  
**North Dakota Farm Business Management Education**  
**Region 2 - North Central North Dakota, 2016**  
**(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	165	33	33	33
Beginning cash (farm & nonfarm)	79,741	37,702	62,306	201,739
<b>Cash Provided By Operating Activities</b>				
Gross cash farm income	609,499	379,496	553,559	1,061,680
Total cash farm expense	-500,733	-401,437	-434,994	-818,007
Net cash from hedging transactions	1,975	-88	1,200	10,020
Cash provided by operating	110,741	-22,028	119,764	253,693
<b>Cash Provided By Investing Activities</b>				
Sale of breeding livestock	3,759	1,883	2,251	605
Sale of machinery & equipment	7,739	3,878	12,110	6,266
Sale of titled vehicles	1,208	1,342	2,073	753
Sale of farm land	2,666	12,939	-	258
Sale of farm buildings	321	1,000	606	-
Sale of other farm assets	952	423	1,324	1,747
Sale of nonfarm assets	5,012	4,957	12,896	2,927
Purchase of breeding livestock	-6,343	-9,347	-8,799	-864
Purchase of machinery & equip.	-53,778	-28,914	-40,027	-111,297
Purchase of titled vehicles	-5,375	-4,889	-2,811	-11,365
Purchase of farm land	-20,924	-16,323	-5,267	-16,295
Purchase of farm buildings	-8,532	-4,475	-1,897	-15,640
Purchase of other farm assets	-4,026	-2,385	-5,241	-7,740
Purchase of nonfarm assets	-23,375	-21,673	-22,092	-26,925
Cash provided by investing	-100,695	-61,584	-54,874	-177,571
<b>Cash Provided By Financing Activities</b>				
Money borrowed	602,208	669,823	500,454	859,355
Principal payments	-582,283	-582,238	-521,693	-873,178
Personal income	35,806	43,065	31,486	45,830
Family living/owner withdrawals	-62,164	-53,589	-54,343	-87,567
Income and social security tax	-13,058	-3,677	-11,339	-29,332
Capital contributions	215	832	-	-
Capital distributions	-78	-391	-	-
Dividends paid	-	-	-	-
Cash gifts and inheritances	8,043	12,991	208	308
Gifts given	-181	-	-37	-412
Other cash flows	-	-	-	-
Cash provided by financing	-11,493	86,815	-55,264	-84,996
Net change in cash balance	-1,447	3,203	9,626	-8,874
Ending cash (farm & nonfarm)	78,280	40,945	71,830	192,831
Discrepancy	15	-40	103	34

---

**Financial Standards Measures**  
**North Dakota Farm Business Management Education**  
**Region 2 - North Central North Dakota, 2016**  
**(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	165	33	33	33
<b>Liquidity</b>				
Current ratio	1.80	1.06	1.52	2.39
Working capital	255,812	17,222	145,670	708,192
Working capital to gross inc	37.0 %	4.4 %	24.8 %	55.0 %
<b>Solvency (cost)</b>				
Farm debt to asset ratio	39 %	57 %	41 %	31 %
Farm equity to asset ratio	61 %	43 %	59 %	69 %
Farm debt to equity ratio	0.64	1.33	0.70	0.44
<b>Profitability (cost)</b>				
Rate of return on farm assets	5.9 %	-2.6 %	5.1 %	10.5 %
Rate of return on farm equity	7.2 %	-11.3 %	5.8 %	13.7 %
Operating profit margin	16.1 %	-9.1 %	13.3 %	25.8 %
Net farm income	133,763	-26,671	98,425	376,785
EBITDA	225,222	41,951	182,626	512,381
<b>Repayment Capacity</b>				
Capital debt repayment capacity	171,784	10,951	135,576	423,883
Capital debt repayment margin	86,656	-65,678	62,577	298,983
Replacement margin	60,948	-77,441	33,491	254,197
Term debt coverage ratio	2.02	0.14	1.86	3.39
Replacement coverage ratio	1.55	0.12	1.33	2.50
<b>Efficiency</b>				
Asset turnover rate (cost)	36.7 %	29.1 %	38.2 %	40.6 %
Operating expense ratio	67.4 %	89.3 %	69.0 %	60.2 %
Depreciation expense ratio	9.1 %	10.5 %	9.8 %	7.7 %
Interest expense ratio	4.2 %	7.8 %	4.5 %	2.9 %
Net farm income ratio	19.4 %	-6.8 %	16.7 %	29.3 %

---

**Crop Production and Marketing Summary**  
**North Dakota Farm Business Management Education**  
**Region 2 - North Central North Dakota, 2016**  
**(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	165	33	33	33
<b>Acreage Summary</b>				
Total acres owned	779	789	681	889
Total crop acres	2,069	1,518	1,825	3,436
Crop acres owned	531	395	540	702
Crop acres cash rented	1,354	980	1,180	2,290
Crop acres share rented	184	143	105	444
Total pasture acres	324	713	137	100
Percent crop acres owned	26 %	26 %	30 %	20 %
Mach invest/crop acre cost	318	286	354	311
<b>Average Price Received (Cash Sales Only)</b>				
Wheat, Spring per bushel	4.51	4.30	4.52	4.53
Soybeans per bushel	8.65	8.74	8.72	8.56
Canola per cwt	15.52	16.01	15.27	15.50
Barley per bushel	4.84	4.18	4.32	5.29
Corn per bushel	3.00	2.83	3.10	3.07
Peas, Field per bushel	7.05	-	-	7.07
Sunflowers per cwt	18.38	-	-	17.96
Flax per bushel	8.15	-	7.12	-
Beans, Pinto per cwt	24.46	-	-	24.48
Wheat, Durum per bushel	6.14	-	-	-
Wheat, Winter per bushel	3.14	-	-	-
<b>Average Yield Per Acre</b>				
Wheat, Spring (bushel)	53.91	51.39	51.86	57.89
Soybeans (bushel)	38.89	34.22	38.08	41.20
Canola (cwt)	18.61	16.42	18.72	19.93
Pasture (aum)	0.991	1.02	1.35	-
Barley (bushel)	72.39	69.70	56.66	78.20
Corn (bushel)	134.42	114.36	128.84	153.03
Hay, Grass (ton)	1.14	1.09	-	-
Sunflowers (cwt)	17.91	14.89	-	19.89
Peas, Field (bushel)	36.60	-	33.31	46.35
Wheat, Durum (bushel)	50.81	-	-	44.93
Beans, Pinto (cwt)	19.78	-	-	21.31
Flax (bushel)	24.63	-	21.42	-
Hay, Alfalfa (ton)	2.30	2.53	-	-
Hay, Mixed Alfalfa/Grass (ton)	1.45	1.29	-	-
Hay, Mixed (ton)	1.13	1.10	-	-
Corn Silage (ton)	16.15	15.76	-	-
Hay, Small Grain (ton)	2.55	2.73	-	-

**Household and Personal Expenses**  
**North Dakota Farm Business Management Education**  
**Region 2 - North Central North Dakota, 2016**  
**(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	83	16	18	20
Average family size	2.9	2.7	3.2	2.9
Family Living Expenses				
Food and meals expense	7,729	8,910	7,287	7,228
Medical care	5,333	4,030	4,692	8,092
Health insurance	9,226	5,455	9,381	10,617
Cash donations	2,409	1,123	1,519	3,664
Household supplies	6,995	6,174	6,659	10,187
Clothing	2,165	1,810	1,369	3,920
Personal care	6,227	3,204	5,803	8,530
Child / Dependent care	820	485	731	1,142
Alimony and child support	10	51	-	-
Gifts	1,864	1,498	2,267	2,301
Education	1,260	362	628	2,418
Recreation	3,928	3,177	2,764	5,102
Utilities (household share)	3,837	3,043	3,658	4,831
Personal vehicle operating exp	2,793	4,125	2,913	2,160
Household real estate taxes	392	-	430	534
Dwelling rent	107	96	-	35
Household repairs	2,049	3,398	2,176	1,089
Personal interest	1,701	796	1,464	2,549
Disability / Long term care ins	366	80	192	354
Life insurance payments	3,408	1,373	1,214	8,503
Personal property insurance	396	1,286	131	164
Miscellaneous	5,465	5,052	5,827	6,080
Total cash family living expense	68,479	55,527	61,105	89,501
Family living from the farm	235	86	-	-
Total family living	68,714	55,613	61,105	89,501
Other Nonfarm Expenditures				
Income taxes	14,853	2,602	11,781	31,441
Furnishing & appliance purchases	100	116	-	-
Nonfarm vehicle purchases	3,649	3,393	7,671	2,051
Nonfarm real estate purchases	6,367	14,289	1,441	6,750
Other nonfarm capital purchases	1,546	2,055	-	-
Nonfarm savings & investments	3,811	674	4,057	9,481
Total other nonfarm expenditures	30,326	23,128	24,950	49,723
Total cash family living investment & nonfarm capital purch	98,804	78,655	86,055	139,224



---

**Operator and Labor Information**  
**North Dakota Farm Business Management Education**  
**Region 2 - North Central North Dakota, 2016**  
**(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	165	33	33	33
<b>Operator Information</b>				
Average number of operators	1.0	1.0	1.0	1.1
Average age of operators	44.1	44.1	41.6	45.0
Average number of years farming	20.1	19.7	18.0	21.1
<b>Results Per Operator</b>				
Working capital	243,983	17,222	141,386	631,631
Total assets (cost)	2,091,902	1,507,945	1,710,216	3,373,787
Total liabilities	766,277	803,711	678,248	967,535
Net worth (cost)	1,325,625	704,235	1,031,968	2,406,252
Gross farm income	658,866	393,365	571,061	1,147,743
Total farm expense	531,783	423,319	475,664	811,368
Net farm income from operations	127,083	-29,954	95,397	336,375
Net nonfarm income	34,150	43,065	30,560	40,875
Family living & tax withdrawals	71,711	57,197	63,012	104,360
Total acres owned	743.0	788.6	661.3	792.9
Total crop acres	1,973.2	1,517.5	1,771.3	3,064.2
Crop acres owned	506.4	394.5	523.7	626.1
Crop acres cash rented	1,291.3	979.9	1,145.8	2,042.4
Crop acres share rented	175.5	143.0	101.9	395.6
Total pasture acres	309.5	712.6	133.4	89.4
<b>Labor Analysis</b>				
Number of farms	165	33	33	33
Total unpaid labor hours	2,108	1,964	2,091	2,430
Total hired labor hours	681	469	524	1,376
Total labor hours per farm	2,789	2,433	2,615	3,807
Unpaid hours per operator	2,011	1,964	2,029	2,168

---

---

**Nonfarm Summary**  
**North Dakota Farm Business Management Education**  
**Region 2 - North Central North Dakota, 2016**  
**(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	165	33	33	33
<b>Nonfarm Income</b>				
Personal wages & salary	18,838	21,458	23,656	14,339
Net nonfarm business income	5,954	10,725	1,390	15,508
Personal rental income	2,298	1,067	443	4,662
Personal interest income	439	7	87	1,080
Personal cash dividends	981	213	-	3,138
Tax refunds	1,065	1,267	825	117
Other nonfarm income	6,232	8,328	5,085	6,986
Total nonfarm income	35,806	43,065	31,486	45,830
Gifts and inheritances	8,043	12,991	208	308

**Financial Summary**  
**North Dakota Farm Business Management Education**  
**Region 2 - North Central North Dakota, 2016**  
**(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>
Number of farms	165	19	23	36	61	24
<b>Income Statement</b>						
Gross cash farm income	609,499	54,449	186,209	401,441	724,805	1,332,364
Total cash farm expense	500,733	50,488	153,407	339,493	575,629	1,128,778
Net cash farm income	108,766	3,960	32,802	61,948	149,176	203,586
Inventory change	87,604	16,814	29,796	53,985	100,168	203,117
Depreciation	-63,125	-2,485	-14,494	-39,609	-77,579	-146,754
Net farm income from operations	133,245	18,289	48,105	76,323	171,764	259,949
Gain or loss on capital sales	518	-	226	-5	1,317	4
Average net farm income	133,763	18,289	48,331	76,319	173,081	259,953
Median net farm income	98,928	13,826	48,629	77,385	164,030	195,245
<b>Profitability (cost)</b>						
Rate of return on assets	5.9 %	4.7 %	5.4 %	4.4 %	6.2 %	6.3 %
Rate of return on equity	7.2 %	6.9 %	6.0 %	4.9 %	7.7 %	7.8 %
Operating profit margin	16.1 %	15.3 %	16.9 %	12.7 %	17.6 %	15.3 %
Asset turnover rate	36.7 %	30.9 %	31.8 %	34.9 %	35.5 %	41.3 %
<b>Liquidity &amp; Repayment (end of year)</b>						
Current assets	575,211	71,006	151,696	353,861	692,850	1,197,276
Current liabilities	319,398	39,292	62,139	194,910	365,571	736,950
Current ratio	1.80	1.81	2.44	1.82	1.90	1.62
Working capital	255,812	31,714	89,558	158,951	327,278	460,326
Working capital to gross inc	37.0 %	42.4 %	42.3 %	35.2 %	40.3 %	30.3 %
Term debt coverage ratio	2.02	1.38	1.46	1.67	2.19	2.20
Replacement coverage ratio	1.55	1.33	1.24	1.31	1.66	1.61
Term debt to EBITDA	1.78	3.80	2.50	2.51	1.62	1.57
<b>Solvency (end of year at cost)</b>						
Number of farms	165	19	23	36	61	24
Total assets	2,193,328	290,118	752,771	1,523,460	2,663,705	4,292,191
Total liabilities	803,430	174,348	307,790	591,150	915,428	1,645,911
Net worth	1,389,897	115,770	444,980	932,310	1,748,277	2,646,280
Net worth change	100,027	20,671	40,859	64,324	108,697	225,375
Farm debt to asset ratio	39 %	60 %	42 %	43 %	36 %	41 %
Total debt to asset ratio	37 %	60 %	41 %	39 %	34 %	38 %
Change in earned net worth %	8 %	22 %	10 %	7 %	7 %	9 %
<b>Nonfarm Information</b>						
Net nonfarm income	35,806	30,296	27,050	36,727	43,721	28,981
Farms reporting living expenses	83	5	14	15	36	11
Total family living expense	68,714	33,918	50,273	51,561	76,248	93,537
<b>Crop Acres</b>						
Total crop acres	2,069	260	738	1,504	2,464	4,155
Total crop acres owned	531	34	214	371	785	751
Total crop acres cash rented	1,354	216	369	1,003	1,475	3,069
Total crop acres share rented	184	11	155	129	204	335
Machinery value per crop acre	318	98	224	286	317	356

**Financial Summary**  
**North Dakota Farm Business Management Education**  
**Region 2 - North Central North Dakota, 2016**  
**(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	165	35	34	30	45	21
<b>Income Statement</b>						
Gross cash farm income	609,499	254,292	652,902	785,099	720,766	641,955
Total cash farm expense	500,733	203,978	565,845	679,656	587,511	448,352
Net cash farm income	108,766	50,314	87,057	105,444	133,255	193,603
Inventory change	87,604	57,785	120,988	127,337	83,275	35,766
Depreciation	-63,125	-14,479	-55,941	-84,639	-77,894	-93,451
Net farm income from operations	133,245	93,619	152,105	148,141	138,635	135,918
Gain or loss on capital sales	518	126	3,052	-486	-314	286
Average net farm income	133,763	93,746	155,156	147,655	138,322	136,204
Median net farm income	98,928	74,239	103,351	126,015	120,201	118,732
<b>Profitability (cost)</b>						
Rate of return on assets	5.9 %	14.9 %	8.4 %	5.4 %	4.6 %	3.9 %
Rate of return on equity	7.2 %	30.4 %	12.7 %	6.5 %	5.0 %	4.1 %
Operating profit margin	16.1 %	24.7 %	17.6 %	14.7 %	14.1 %	14.6 %
Asset turnover rate	36.7 %	60.4 %	47.9 %	37.0 %	32.2 %	26.8 %
<b>Liquidity &amp; Repayment (end of year)</b>						
Current assets	575,211	194,122	473,390	717,921	797,160	695,732
Current liabilities	319,398	108,526	284,855	446,686	458,550	246,757
Current ratio	1.80	1.79	1.66	1.61	1.74	2.82
Working capital	255,812	85,596	188,535	271,235	338,611	448,974
Working capital to gross inc	37.0 %	27.7 %	25.3 %	30.0 %	42.1 %	65.1 %
Term debt coverage ratio	2.02	3.07	2.26	1.65	1.81	2.45
Replacement coverage ratio	1.55	2.78	1.79	1.42	1.32	1.47
Term debt to EBITDA	1.78	1.46	1.84	2.33	1.68	1.25
<b>Solvency (end of year at cost)</b>						
Number of farms	165	35	34	30	45	21
Total assets	2,193,328	633,588	1,863,803	2,927,732	2,789,091	3,000,625
Total liabilities	803,430	348,586	890,503	1,174,573	922,624	634,909
Net worth	1,389,897	285,001	973,299	1,753,160	1,866,468	2,365,716
Net worth change	100,027	74,169	123,922	108,694	108,440	74,026
Farm debt to asset ratio	39 %	56 %	49 %	45 %	35 %	22 %
Total debt to asset ratio	37 %	55 %	48 %	40 %	33 %	21 %
Change in earned net worth %	8 %	35 %	15 %	7 %	6 %	3 %
<b>Nonfarm Information</b>						
Net nonfarm income	35,806	21,976	39,849	51,014	29,959	43,113
Farms reporting living expenses	83	13	15	15	22	18
Total family living expense	68,714	47,272	72,878	75,405	73,851	68,875
<b>Crop Acres</b>						
Total crop acres	2,069	917	2,146	2,746	2,468	2,041
Total crop acres owned	531	109	321	639	737	978
Total crop acres cash rented	1,354	689	1,566	1,912	1,554	892
Total crop acres share rented	184	119	259	194	177	171
Machinery value per crop acre	318	171	262	306	363	428

**Financial Summary**  
**North Dakota Farm Business Management Education**  
**Region 2 - North Central North Dakota, 2016**  
**(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	165	116	15	20	14
<b>Income Statement</b>					
Gross cash farm income	609,499	706,008	135,335	444,576	553,489
Total cash farm expense	500,733	574,707	123,488	365,067	485,804
Net cash farm income	108,766	131,301	11,847	79,509	67,684
Inventory change	87,604	106,133	1,140	52,894	76,304
Depreciation	-63,125	-73,500	-15,684	-48,933	-48,267
Net farm income from operations	133,245	163,934	-2,697	83,470	95,721
Gain or loss on capital sales	518	750	53	-113	-
Average net farm income	133,763	164,683	-2,644	83,357	95,721
Median net farm income	98,928	119,466	-6,039	81,597	100,104
<b>Profitability (cost)</b>					
Rate of return on assets	5.9 %	6.6 %	-0.6 %	3.4 %	6.5 %
Rate of return on equity	7.2 %	8.4 %	-4.2 %	3.3 %	8.3 %
Operating profit margin	16.1 %	17.0 %	-4.7 %	13.2 %	13.8 %
Asset turnover rate	36.7 %	38.9 %	12.7 %	26.0 %	46.9 %
<b>Liquidity &amp; Repayment (end of year)</b>					
Current assets	575,211	686,249	131,999	422,072	348,816
Current liabilities	319,398	374,485	88,895	264,562	188,271
Current ratio	1.80	1.83	1.48	1.60	1.85
Working capital	255,812	311,764	43,105	157,510	160,545
Working capital to gross inc	37.0 %	38.7 %	31.8 %	31.7 %	26.3 %
Term debt coverage ratio	2.02	2.30	0.12	1.24	1.97
Replacement coverage ratio	1.55	1.72	0.12	1.05	1.45
Term debt to EBITDA	1.78	1.53	7.77	2.85	2.44
<b>Solvency (end of year at cost)</b>					
Number of farms	165	116	15	20	14
Total assets	2,193,328	2,452,141	977,215	2,007,095	1,617,902
Total liabilities	803,430	868,398	392,706	742,256	792,577
Net worth	1,389,897	1,583,742	584,509	1,264,840	825,324
Net worth change	100,027	127,823	-18,502	43,340	77,696
Farm debt to asset ratio	39 %	38 %	42 %	38 %	51 %
Total debt to asset ratio	37 %	35 %	40 %	37 %	49 %
Change in earned net worth %	8 %	9 %	-3 %	4 %	10 %
<b>Nonfarm Information</b>					
Net nonfarm income	35,806	35,087	30,751	21,328	67,868
Farms reporting living expenses	83	57	8	11	7
Total family living expense	68,714	71,675	52,932	54,239	85,382
<b>Crop Acres</b>					
Total crop acres	2,069	2,353	562	1,834	1,662
Total crop acres owned	531	553	214	745	382
Total crop acres cash rented	1,354	1,591	318	963	1,056
Total crop acres share rented	184	209	30	127	224
Machinery value per crop acre	318	323	315	274	327

## 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, 2016**  
**(Farms Sorted By Net Return)**

**Barley on Owned Land**

---

	<u><b>Avg. Of All Farms</b></u>
Number of farms	16
Acres	145.93
Yield per acre (bu.)	65.36
Operators share of yield %	100.00
Value per bu.	4.23
Total product return per acre	276.30
Crop insurance per acre	7.73
Other crop income per acre	5.54
Gross return per acre	289.57
<b>Direct Expenses</b>	
Seed	14.80
Fertilizer	47.79
Crop chemicals	30.45
Crop insurance	14.63
Fuel & oil	9.00
Repairs	14.78
Custom hire	1.34
Operating interest	2.47
Miscellaneous	1.71
Total direct expenses per acre	136.98
Return over direct exp per acre	152.58
<b>Overhead Expenses</b>	
Custom hire	3.07
Hired labor	6.44
Machinery leases	1.25
Building leases	0.42
RE & pers. property taxes	5.38
Farm insurance	3.67
Utilities	2.60
Dues & professional fees	0.42
Interest	15.90
Mach & bldg depreciation	29.81
Miscellaneous	1.98
Total overhead expenses per acre	70.93
Total dir & ovhd expenses per acre	207.92
Net return per acre	81.65
Government payments	21.32
Net return with govt pmts	102.97
Labor & management charge	18.73
Net return over lbr & mgt	84.24
<b>Cost of Production</b>	
Total direct expense per bu.	2.10
Total dir & ovhd exp per bu.	3.18
Less govt & other income	2.65
With labor & management	2.94
Net value per unit	4.23
Machinery cost per acre	60.59
Est. labor hours per acre	1.23

---



**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education**  
**Region 2 - North Central North Dakota, 2016**  
**(Farms Sorted By Net Return)**

**Barley on Cash Rent**

	<u>Avg. Of</u> <u>All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	41	8	8	9
Acres	360.12	235.45	354.01	564.24
Yield per acre (bu.)	73.12	46.69	81.38	78.90
Operators share of yield %	100.00	100.00	100.00	100.00
Value per bu.	4.18	3.56	3.94	4.62
Total product return per acre	305.70	166.08	320.91	364.27
Crop insurance per acre	12.45	26.03	4.06	14.08
Other crop income per acre	3.20	1.33	-	5.39
Gross return per acre	321.35	193.43	324.97	383.75
<b>Direct Expenses</b>				
Seed	17.53	14.41	20.56	18.09
Fertilizer	49.94	42.87	53.21	54.60
Crop chemicals	35.00	28.99	31.28	34.90
Crop insurance	14.53	17.00	10.46	15.67
Fuel & oil	10.22	9.62	10.18	9.09
Repairs	18.41	16.15	27.70	14.99
Custom hire	5.23	3.70	17.43	1.94
Land rent	53.17	60.00	57.79	47.74
Operating interest	4.76	6.64	4.93	4.85
Miscellaneous	1.48	2.95	1.10	1.57
Total direct expenses per acre	210.27	202.33	234.64	203.44
Return over direct exp per acre	111.08	-8.90	90.34	180.31
<b>Overhead Expenses</b>				
Custom hire	1.73	0.98	0.27	2.75
Hired labor	8.38	8.89	12.42	6.80
Machinery leases	3.14	7.53	2.70	2.21
Building leases	0.63	0.39	2.46	0.03
Farm insurance	3.81	3.62	4.32	3.27
Utilities	2.48	1.75	2.65	3.15
Dues & professional fees	0.80	0.88	0.27	0.49
Interest	3.04	4.94	3.35	1.78
Mach & bldg depreciation	27.91	36.23	26.75	24.94
Miscellaneous	3.13	2.95	3.00	2.07
Total overhead expenses per acre	55.04	68.17	58.19	47.49
Total dir & ovhd expenses per acre	265.31	270.50	292.83	250.93
Net return per acre	56.05	-77.07	32.14	132.82
Government payments	21.98	24.51	21.77	23.67
Net return with govt pmts	78.03	-52.55	53.91	156.49
Labor & management charge	22.97	23.22	24.23	22.55
Net return over lbr & mgt	55.06	-75.77	29.67	133.94
<b>Cost of Production</b>				
Total direct expense per bu.	2.88	4.33	2.88	2.58
Total dir & ovhd exp per bu.	3.63	5.79	3.60	3.18
Less govt & other income	3.11	4.68	3.28	2.63
With labor & management	3.43	5.18	3.58	2.92
Net value per unit	4.18	3.56	3.94	4.62
Machinery cost per acre	68.10	78.82	87.32	56.40
Est. labor hours per acre	1.13	1.30	1.35	1.01

---

**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education**  
**Region 2 - North Central North Dakota, 2016**  
**(Farms Sorted By Net Return)**

**Beans, Pinto on Owned Land**

---

	<u><b>Avg. Of All Farms</b></u>
Number of farms	7
Acres	221.47
Yield per acre (cwt.)	18.94
Operators share of yield %	100.00
Value per cwt.	27.95
Total product return per acre	529.53
Crop insurance per acre	1.43
Other crop income per acre	1.81
Gross return per acre	532.77
<b>Direct Expenses</b>	
Seed	52.56
Fertilizer	42.86
Crop chemicals	81.09
Crop insurance	19.89
Fuel & oil	10.96
Repairs	22.89
Custom hire	11.55
Operating interest	5.11
Miscellaneous	0.27
Total direct expenses per acre	247.18
Return over direct exp per acre	285.58
<b>Overhead Expenses</b>	
Custom hire	1.24
Hired labor	20.90
Machinery leases	1.81
Building leases	0.53
RE & pers. property taxes	7.46
Farm insurance	7.56
Utilities	4.81
Dues & professional fees	0.77
Interest	16.92
Mach & bldg depreciation	50.13
Miscellaneous	3.03
Total overhead expenses per acre	115.16
Total dir & ovhd expenses per acre	362.35
Net return per acre	170.42
Government payments	23.06
Net return with govt pmts	193.49
Labor & management charge	34.07
Net return over lbr & mgt	159.41
<b>Cost of Production</b>	
Total direct expense per cwt.	13.05
Total dir & ovhd exp per cwt.	19.13
Less govt & other income	17.74
With labor & management	19.54
Net value per unit	27.95
Machinery cost per acre	96.95
Est. labor hours per acre	1.92

---

---

**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education**  
**Region 2 - North Central North Dakota, 2016**  
**(Farms Sorted By Net Return)**

**Beans, Pinto on Cash Rent**

---

	<u><b>Avg. Of All Farms</b></u>
Number of farms	10
Acres	410.95
Yield per acre (cwt.)	19.82
Operators share of yield %	100.00
Value per cwt.	26.77
Total product return per acre	530.69
Crop insurance per acre	5.76
Other crop income per acre	4.16
Gross return per acre	540.62
<b>Direct Expenses</b>	
Seed	62.70
Fertilizer	36.00
Crop chemicals	85.62
Crop insurance	19.43
Fuel & oil	12.94
Repairs	22.93
Custom hire	3.28
Land rent	50.26
Operating interest	7.05
Miscellaneous	0.22
Total direct expenses per acre	300.43
Return over direct exp per acre	240.19
<b>Overhead Expenses</b>	
Custom hire	1.48
Hired labor	9.59
Machinery leases	1.27
Farm insurance	3.63
Utilities	2.99
Dues & professional fees	0.38
Interest	3.50
Mach & bldg depreciation	34.12
Miscellaneous	7.38
Total overhead expenses per acre	64.34
Total dir & ovhd expenses per acre	364.77
Net return per acre	175.85
Government payments	23.77
Net return with govt pmts	199.63
Labor & management charge	30.37
Net return over lbr & mgt	169.25
<b>Cost of Production</b>	
Total direct expense per cwt.	15.15
Total dir & ovhd exp per cwt.	18.40
Less govt & other income	16.70
With labor & management	18.23
Net value per unit	26.77
Machinery cost per acre	79.00
Est. labor hours per acre	1.41

---

**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education**  
**Region 2 - North Central North Dakota, 2016**  
**(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 farms	29	5	6	6
Acres	244.34	192.67	272.87	336.60
Yield per acre (cwt.)	19.09	13.91	19.20	21.09
Operators share of yield %	100.00	100.00	100.00	100.00
Value per cwt.	16.32	16.28	16.54	16.50
Total product return per acre	311.57	226.41	317.59	347.83
Crop insurance per acre	6.75	3.37	-	21.98
Other crop income per acre	1.71	-	1.44	3.62
Gross return per acre	320.03	229.78	319.04	373.43
<b>Direct Expenses</b>				
Seed	54.37	66.52	53.01	50.36
Fertilizer	57.74	50.24	60.41	58.69
Crop chemicals	23.27	24.89	26.06	18.23
Crop insurance	13.61	13.07	12.24	13.88
Fuel & oil	10.80	11.37	12.24	8.31
Repairs	19.15	18.32	16.39	17.23
Custom hire	2.04	0.70	5.19	1.60
Operating interest	3.24	5.27	4.94	1.79
Miscellaneous	0.95	-	0.14	1.89
Total direct expenses per acre	185.17	190.38	190.61	171.98
Return over direct exp per acre	134.86	39.40	128.43	201.46
<b>Overhead Expenses</b>				
Custom hire	1.50	1.07	1.24	0.86
Hired labor	5.79	8.62	9.61	4.18
Machinery leases	0.82	0.12	0.86	0.43
Building leases	0.32	0.13	0.36	0.58
RE & pers. property taxes	7.10	10.35	7.59	6.41
Farm insurance	3.93	3.57	4.66	4.24
Utilities	3.28	3.72	2.96	3.83
Dues & professional fees	0.80	0.35	0.94	0.55
Interest	13.08	20.37	10.73	8.81
Mach & bldg depreciation	33.43	40.15	30.26	31.47
Miscellaneous	2.15	3.34	1.52	1.21
Total overhead expenses per acre	72.20	91.80	70.73	62.58
Total dir & ovhd expenses per acre	257.37	282.18	261.34	234.56
Net return per acre	62.66	-52.40	57.69	138.88
Government payments	30.46	34.51	29.50	34.30
Net return with govt pmts	93.12	-17.89	87.20	173.18
Labor & management charge	23.83	25.71	22.25	25.08
Net return over lbr & mgt	69.29	-43.60	64.95	148.10
<b>Cost of Production</b>				
Total direct expense per cwt.	9.70	13.69	9.93	8.16
Total dir & ovhd exp per cwt.	13.48	20.29	13.61	11.12
Less govt & other income	11.45	17.57	12.00	8.28
With labor & management	12.69	19.42	13.16	9.47
Net value per unit	16.32	16.28	16.54	16.50
Machinery cost per acre	68.16	67.54	66.15	59.98
Est. labor hours per acre	1.26	1.45	1.29	1.17

**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education**  
**Region 2 - North Central North Dakota, 2016**  
**(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 farms	57	11	12	12
Acres	319.90	246.96	336.39	303.97
Yield per acre (cwt.)	17.98	15.47	18.94	19.48
Operators share of yield %	100.00	100.00	100.00	100.00
Value per cwt.	16.52	15.98	16.58	17.33
Total product return per acre	297.05	247.16	314.16	337.52
Crop insurance per acre	9.76	21.02	3.59	10.79
Other crop income per acre	2.84	0.88	5.94	3.22
Gross return per acre	309.65	269.06	323.70	351.53
<b>Direct Expenses</b>				
Seed	56.70	59.68	58.51	54.61
Fertilizer	59.76	66.65	57.21	52.98
Crop chemicals	24.15	30.66	25.82	20.90
Crop insurance	13.94	14.96	14.88	10.78
Fuel & oil	9.76	10.96	10.52	7.55
Repairs	19.99	22.19	24.61	21.09
Custom hire	4.13	10.11	4.26	4.44
Land rent	49.37	48.24	50.18	48.46
Operating interest	4.87	9.45	3.64	3.51
Miscellaneous	1.40	2.49	1.63	0.92
Total direct expenses per acre	244.07	275.41	251.28	225.24
Return over direct exp per acre	65.58	-6.35	72.41	126.29
<b>Overhead Expenses</b>				
Custom hire	2.41	1.51	3.71	0.54
Hired labor	4.33	2.03	6.10	5.12
Machinery leases	2.92	2.55	-	5.05
Building leases	0.82	0.49	0.38	2.52
Farm insurance	3.91	5.75	4.27	3.60
Utilities	2.49	2.47	3.47	1.61
Dues & professional fees	0.91	0.26	1.04	0.63
Interest	3.71	4.14	3.94	2.13
Mach & bldg depreciation	29.46	41.94	30.63	17.66
Miscellaneous	3.32	3.86	2.56	1.82
Total overhead expenses per acre	54.26	65.01	56.10	40.69
Total dir & ovhd expenses per acre	298.34	340.42	307.38	265.93
Net return per acre	11.31	-71.36	16.31	85.60
Government payments	27.16	30.09	27.44	22.45
Net return with govt pmts	38.47	-41.27	43.76	108.05
Labor & management charge	24.60	25.51	26.93	21.72
Net return over lbr & mgt	13.87	-66.78	16.82	86.33
<b>Cost of Production</b>				
Total direct expense per cwt.	13.57	17.81	13.27	11.56
Total dir & ovhd exp per cwt.	16.59	22.01	16.23	13.65
Less govt & other income	14.38	18.65	14.27	11.78
With labor & management	15.75	20.30	15.70	12.90
Net value per unit	16.52	15.98	16.58	17.33
Machinery cost per acre	71.47	92.55	75.62	57.67
Est. labor hours per acre	1.20	1.19	1.39	1.09

**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education**  
**Region 2 - North Central North Dakota, 2016**  
**(Farms Sorted By Net Return)**

**Corn on Owned Land**

	<u><b>Avg. Of All Farms</b></u>
Number of farms	21
Acres	205.48
Yield per acre (bu.)	127.85
Operator's share of yield %	100.00
Value per bu.	2.84
Other product return per acre	4.63
Total product return per acre	367.24
Hedging gains/losses per acre	3.85
Crop insurance per acre	2.79
Other crop income per acre	3.83
Gross return per acre	377.71
<b>Direct Expenses</b>	
Seed	77.63
Fertilizer	79.10
Crop chemicals	22.15
Crop insurance	17.40
Drying expense	4.35
Fuel & oil	17.69
Repairs	35.50
Custom hire	5.54
Machinery leases	0.88
Operating interest	9.28
Miscellaneous	0.60
Total direct expenses per acre	270.11
Return over direct exp per acre	107.60
<b>Overhead Expenses</b>	
Custom hire	1.24
Hired labor	17.03
Machinery leases	1.63
Building leases	0.29
RE & pers. property taxes	7.28
Farm insurance	5.46
Utilities	4.82
Dues & professional fees	1.09
Interest	17.69
Mach & bldg depreciation	59.69
Miscellaneous	2.81
Total overhead expenses per acre	119.02
Total dir & ovhd expenses per acre	389.13
Net return per acre	-11.42
Government payments	25.57
Net return with govt pmts	14.15
Labor & management charge	36.58
Net return over lbr & mgt	-22.42
<b>Cost of Production</b>	
Total direct expense per bu.	2.11
Total dir & ovhd exp per bu.	3.04
Less govt & other income	2.73
With labor & management	3.01
Net value per unit	2.87
Machinery cost per acre	120.81
Est. labor hours per acre	2.01

**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education**  
**Region 2 - North Central North Dakota, 2016**  
**(Farms Sorted By Net Return)**

**Corn on Cash Rent**

	<u>Avg. Of</u> <u>All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	35	7	7	7
Acres	282.94	265.29	216.31	286.09
Yield per acre (bu.)	135.60	114.26	136.14	161.16
Operators share of yield %	100.00	100.00	100.00	100.00
Value per bu.	2.91	2.70	2.94	3.11
Total product return per acre	393.98	308.76	400.38	501.02
Hedging gains/losses per acre	2.58	-	-	12.76
Crop insurance per acre	5.53	2.91	11.58	-
Other crop income per acre	2.24	0.18	2.34	4.86
Gross return per acre	404.33	311.84	414.30	518.64
<b>Direct Expenses</b>				
Seed	87.33	82.26	90.94	91.82
Fertilizer	81.08	91.79	76.53	87.47
Crop chemicals	20.90	17.64	19.76	17.65
Crop insurance	17.84	17.91	25.02	18.74
Drying expense	3.71	6.61	2.56	4.37
Fuel & oil	16.44	21.97	9.34	16.31
Repairs	32.27	32.53	33.47	31.97
Custom hire	3.05	6.96	-	1.71
Land rent	54.60	58.23	58.14	60.08
Operating interest	7.13	8.25	6.68	3.84
Miscellaneous	2.03	4.42	3.13	0.09
Total direct expenses per acre	326.39	348.56	325.57	334.06
Return over direct exp per acre	77.94	-36.72	88.74	184.58
<b>Overhead Expenses</b>				
Custom hire	2.55	1.27	3.10	0.77
Hired labor	12.93	9.72	7.76	4.21
Machinery leases	3.77	7.67	0.01	4.26
Farm insurance	4.36	5.22	5.35	3.06
Utilities	3.00	3.17	1.98	2.44
Dues & professional fees	1.46	3.96	0.15	0.89
Interest	4.95	3.73	9.86	4.54
Mach & bldg depreciation	41.30	55.96	48.89	26.22
Miscellaneous	5.64	16.81	3.49	2.14
Total overhead expenses per acre	79.96	107.51	80.59	48.53
Total dir & ovhd expenses per acre	406.35	456.07	406.16	382.59
Net return per acre	-2.01	-144.23	8.14	136.06
Government payments	23.79	26.91	35.08	16.52
Net return with govt pmts	21.78	-117.32	43.22	152.57
Labor & management charge	36.26	37.48	40.93	36.61
Net return over lbr & mgt	-14.48	-154.79	2.29	115.96
<b>Cost of Production</b>				
Total direct expense per bu.	2.41	3.05	2.39	2.07
Total dir & ovhd exp per bu.	3.00	3.99	2.98	2.37
Less govt & other income	2.74	3.73	2.62	2.16
With labor & management	3.01	4.06	2.92	2.39
Net value per unit	2.92	2.70	2.94	3.19
Machinery cost per acre	102.20	127.71	103.60	84.71
Est. labor hours per acre	1.79	1.77	2.08	1.48



---

**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education**  
**Region 2 - North Central North Dakota, 2016**  
**(Farms Sorted By Net Return)**

**Corn Silage on Owned Land**

---

	<u><b>Avg. Of All Farms</b></u>
Number of farms	13
Acres	60.74
Yield per acre (ton)	16.89
Operators share of yield %	100.00
Value per ton	27.75
Total product return per acre	468.63
Other crop income per acre	0.46
Gross return per acre	469.09
<b>Direct Expenses</b>	
Seed	63.71
Fertilizer	42.45
Crop chemicals	18.04
Crop insurance	12.33
Fuel & oil	19.54
Repairs	37.45
Custom hire	30.02
Operating interest	6.91
Miscellaneous	0.43
Total direct expenses per acre	230.87
Return over direct exp per acre	238.22
<b>Overhead Expenses</b>	
Custom hire	2.13
Hired labor	3.46
Machinery leases	2.89
RE & pers. property taxes	5.04
Farm insurance	5.30
Utilities	2.74
Dues & professional fees	1.11
Interest	15.65
Mach & bldg depreciation	40.86
Miscellaneous	1.70
Total overhead expenses per acre	80.86
Total dir & ovhd expenses per acre	311.73
Net return per acre	157.35
Government payments	17.40
Net return with govt pmts	174.75
Labor & management charge	33.93
Net return over lbr & mgt	140.82
<b>Cost of Production</b>	
Total direct expense per ton	13.67
Total dir & ovhd exp per ton	18.46
Less govt & other income	17.40
With labor & management	19.41
Net value per unit	27.75
Machinery cost per acre	131.01
Est. labor hours per acre	2.58

---

---

**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education**  
**Region 2 - North Central North Dakota, 2016**  
**(Farms Sorted By Net Return)**

---

**CRP on Owned Land**

---

	<u><b>Avg. Of All Farms</b></u>
Number of farms	23
Acres	148.29
Yield per acre (\$)	34.89
Operators share of yield %	100.00
Value per \$	1.00
Total product return per acre	34.89
Gross return per acre	34.89
<b>Direct Expenses</b>	
Crop chemicals	0.71
Fuel & oil	0.46
Repairs	0.62
Total direct expenses per acre	2.10
Return over direct exp per acre	32.79
<b>Overhead Expenses</b>	
Hired labor	0.59
RE & pers. property taxes	6.64
Interest	5.33
Mach & bldg depreciation	1.42
Miscellaneous	0.63
Total overhead expenses per acre	14.61
Total dir & ovhd expenses per acre	16.70
Net return per acre	18.19

---

**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education**  
**Region 2 - North Central North Dakota, 2016**  
**(Farms Sorted By Net Return)**

**Fallow on Owned Land**

---

	<u>Avg. Of All Farms</u>
Number of farms	10
Acres	74.25
Yield per acre	-
Operators share of yield %	-
Value per 0	-
Total product return per acre	-
Gross return per acre	-
<b>Direct Expenses</b>	
Crop chemicals	1.90
Fuel & oil	4.53
Repairs	5.88
Operating interest	2.61
Total direct expenses per acre	14.92
Return over direct exp per acre	-14.92
<b>Overhead Expenses</b>	
Custom hire	0.48
Hired labor	1.35
Building leases	0.18
RE & pers. property taxes	5.58
Farm insurance	1.89
Utilities	1.13
Dues & professional fees	0.96
Interest	7.08
Mach & bldg depreciation	8.76
Miscellaneous	1.28
Total overhead expenses per acre	28.69
Total dir & ovhd expenses per acre	43.61
Net return per acre	-43.61

---

**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education**  
**Region 2 - North Central North Dakota, 2016**  
**(Farms Sorted By Net Return)**

**Flax on Owned Land**

---

	<u><b>Avg. Of All Farms</b></u>
Number of farms	7
Acres	148.90
Yield per acre (bu.)	26.60
Operators share of yield %	100.00
Value per bu.	8.13
Other product return per acre	0.32
Total product return per acre	216.47
Other crop income per acre	0.35
Gross return per acre	216.83
<b>Direct Expenses</b>	
Seed	13.07
Fertilizer	22.38
Crop chemicals	16.80
Crop insurance	8.15
Fuel & oil	9.11
Repairs	13.68
Custom hire	6.75
Operating interest	3.53
Miscellaneous	0.30
Total direct expenses per acre	93.77
Return over direct exp per acre	123.06
<b>Overhead Expenses</b>	
Hired labor	3.13
RE & pers. property taxes	5.66
Farm insurance	3.38
Utilities	1.91
Dues & professional fees	0.69
Interest	5.12
Mach & bldg depreciation	25.10
Miscellaneous	1.54
Total overhead expenses per acre	46.53
Total dir & ovhd expenses per acre	140.30
Net return per acre	76.53
Government payments	21.66
Net return with govt pmts	98.19
Labor & management charge	19.31
Net return over lbr & mgt	78.88
<b>Cost of Production</b>	
Total direct expense per bu.	3.53
Total dir & ovhd exp per bu.	5.28
Less govt & other income	4.44
With labor & management	5.16
Net value per unit	8.13
Machinery cost per acre	53.83
Est. labor hours per acre	1.15

---

---

**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education**  
**Region 2 - North Central North Dakota, 2016**  
**(Farms Sorted By Net Return)**

**Flax on Cash Rent**

---

	<u><b>Avg. Of All Farms</b></u>
Number of farms	6
Acres	302.85
Yield per acre (bu.)	24.22
Operators share of yield %	100.00
Value per bu.	8.89
Total product return per acre	215.30
Gross return per acre	215.30
<b>Direct Expenses</b>	
Seed	15.29
Fertilizer	32.95
Crop chemicals	16.48
Crop insurance	13.47
Fuel & oil	7.37
Repairs	16.42
Custom hire	7.85
Land rent	44.92
Operating interest	3.52
Miscellaneous	0.03
Total direct expenses per acre	158.30
Return over direct exp per acre	57.00
<b>Overhead Expenses</b>	
Custom hire	1.28
Hired labor	3.69
Building leases	0.17
Farm insurance	4.13
Utilities	2.38
Dues & professional fees	0.41
Interest	4.14
Mach & bldg depreciation	23.99
Miscellaneous	1.91
Total overhead expenses per acre	42.10
Total dir & ovhd expenses per acre	200.41
Net return per acre	14.90
Government payments	16.64
Net return with govt pmts	31.54
Labor & management charge	19.53
Net return over lbr & mgt	12.01
<b>Cost of Production</b>	
Total direct expense per bu.	6.54
Total dir & ovhd exp per bu.	8.27
Less govt & other income	7.59
With labor & management	8.39
Net value per unit	8.89
Machinery cost per acre	57.95
Est. labor hours per acre	1.05

---

---

**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education**  
**Region 2 - North Central North Dakota, 2016**  
**(Farms Sorted By Net Return)**

**Hay, Alfalfa on Owned Land**

---

	<u>Avg. Of All Farms</u>
Number of farms	10
Acres	123.68
Yield per acre (ton)	2.25
Operators share of yield %	100.00
Value per ton	77.35
Total product return per acre	174.36
Gross return per acre	174.36
<b>Direct Expenses</b>	
Seed	0.33
Fertilizer	1.26
Fuel & oil	7.60
Repairs	13.01
Custom hire	1.13
Operating interest	1.79
Miscellaneous	0.15
Total direct expenses per acre	25.27
Return over direct exp per acre	149.10
<b>Overhead Expenses</b>	
Custom hire	4.91
Hired labor	2.19
Machinery leases	0.91
RE & pers. property taxes	4.92
Farm insurance	3.68
Utilities	2.89
Dues & professional fees	0.34
Interest	13.61
Mach & bldg depreciation	20.04
Miscellaneous	1.36
Total overhead expenses per acre	54.85
Total dir & ovhd expenses per acre	80.12
Net return per acre	94.25
Government payments	2.59
Net return with govt pmts	96.84
Labor & management charge	11.60
Net return over lbr & mgt	85.23
<b>Cost of Production</b>	
Total direct expense per ton	11.21
Total dir & ovhd exp per ton	35.54
Less govt & other income	34.39
With labor & management	39.54
Net value per unit	77.35
Machinery cost per acre	47.82
Est. labor hours per acre	0.96

---

---

**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education**  
**Region 2 - North Central North Dakota, 2016**  
**(Farms Sorted By Net Return)**

**Hay, Alfalfa on Cash Rent**

---

	<u>Avg. Of All Farms</u>
Number of farms	8
Acres	88.33
Yield per acre (ton)	2.38
Operators share of yield %	100.00
Value per ton	85.88
Total product return per acre	204.08
Gross return per acre	204.08
<b>Direct Expenses</b>	
Fertilizer	3.07
Fuel & oil	6.34
Repairs	20.02
Custom hire	0.78
Land rent	26.21
Operating interest	1.94
Miscellaneous	0.25
Total direct expenses per acre	58.60
Return over direct exp per acre	145.47
<b>Overhead Expenses</b>	
Hired labor	2.68
Farm insurance	5.41
Utilities	3.12
Dues & professional fees	0.50
Interest	2.79
Mach & bldg depreciation	19.35
Miscellaneous	0.26
Total overhead expenses per acre	34.11
Total dir & ovhd expenses per acre	92.71
Net return per acre	111.36
Government payments	0.14
Net return with govt pmts	111.50
Labor & management charge	15.51
Net return over lbr & mgt	95.99
<b>Cost of Production</b>	
Total direct expense per ton	24.66
Total dir & ovhd exp per ton	39.01
Less govt & other income	38.95
With labor & management	45.48
Net value per unit	85.88
Machinery cost per acre	47.76
Est. labor hours per acre	1.41

---

---

**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education**  
**Region 2 - North Central North Dakota, 2016**  
**(Farms Sorted By Net Return)**

**Hay, Grass on Owned Land**

---

	<u><b>Avg. Of All Farms</b></u>
Number of farms	17
Acres	120.31
Yield per acre (ton)	1.29
Operators share of yield %	100.00
Value per ton	32.88
Total product return per acre	42.48
Other crop income per acre	0.17
Gross return per acre	42.65
<b>Direct Expenses</b>	
Fuel & oil	5.02
Repairs	11.13
Operating interest	1.37
Miscellaneous	0.23
Total direct expenses per acre	17.75
Return over direct exp per acre	24.90
<b>Overhead Expenses</b>	
Custom hire	0.60
Hired labor	2.85
Machinery leases	0.44
Building leases	0.22
RE & pers. property taxes	2.74
Farm insurance	1.14
Utilities	0.84
Dues & professional fees	0.36
Interest	7.57
Mach & bldg depreciation	12.85
Miscellaneous	0.33
Total overhead expenses per acre	29.92
Total dir & ovhd expenses per acre	47.67
Net return per acre	-5.02
Government payments	0.30
Net return with govt pmts	-4.73
Labor & management charge	10.80
Net return over lbr & mgt	-15.52
<b>Cost of Production</b>	
Total direct expense per ton	13.74
Total dir & ovhd exp per ton	36.90
Less govt & other income	36.54
With labor & management	44.90
Net value per unit	32.88
Machinery cost per acre	30.11
Est. labor hours per acre	0.90

---



---

**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education**  
**Region 2 - North Central North Dakota, 2016**  
**(Farms Sorted By Net Return)**

**Hay, Grass on Cash Rent**

---

	<u>Avg. Of All Farms</u>
Number of farms	18
Acres	323.51
Yield per acre (ton)	1.05
Operators share of yield %	100.00
Value per ton	31.96
Total product return per acre	33.54
Gross return per acre	33.54
<b>Direct Expenses</b>	
Crop chemicals	0.10
Fuel & oil	4.69
Repairs	11.94
Land rent	16.04
Operating interest	1.35
Miscellaneous	0.82
Total direct expenses per acre	34.94
Return over direct exp per acre	-1.40
<b>Overhead Expenses</b>	
Hired labor	3.78
Machinery leases	0.13
Farm insurance	1.48
Utilities	0.78
Interest	0.71
Mach & bldg depreciation	12.94
Miscellaneous	0.84
Total overhead expenses per acre	20.66
Total dir & ovhd expenses per acre	55.59
Net return per acre	-22.05
Government payments	0.36
Net return with govt pmts	-21.69
Labor & management charge	10.52
Net return over lbr & mgt	-32.21
<b>Cost of Production</b>	
Total direct expense per ton	33.29
Total dir & ovhd exp per ton	52.97
Less govt & other income	52.62
With labor & management	62.65
Net value per unit	31.96
Machinery cost per acre	30.00
Est. labor hours per acre	1.01

---

---

**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education**  
**Region 2 - North Central North Dakota, 2016**  
**(Farms Sorted By Net Return)**

**Hay, Mixed Alfalfa/Grass on Cash Rent**

---

	<u>Avg. Of All Farms</u>
Number of farms	9
Acres	76.63
Yield per acre (ton)	1.63
Operators share of yield %	100.00
Value per ton	47.53
Total product return per acre	77.23
Other crop income per acre	2.26
Gross return per acre	79.49
<b>Direct Expenses</b>	
Fuel & oil	4.91
Repairs	10.06
Land rent	23.87
Operating interest	1.60
Miscellaneous	1.10
Total direct expenses per acre	41.55
Return over direct exp per acre	37.95
<b>Overhead Expenses</b>	
Custom hire	0.36
Hired labor	2.12
Building leases	0.20
Farm insurance	3.55
Utilities	1.81
Dues & professional fees	0.91
Interest	3.61
Mach & bldg depreciation	12.43
Miscellaneous	0.26
Total overhead expenses per acre	25.26
Total dir & ovhd expenses per acre	66.80
Net return per acre	12.69
Government payments	-
Net return with govt pmts	12.69
Labor & management charge	10.78
Net return over lbr & mgt	1.91
<b>Cost of Production</b>	
Total direct expense per ton	25.57
Total dir & ovhd exp per ton	41.11
Less govt & other income	39.72
With labor & management	46.35
Net value per unit	47.53
Machinery cost per acre	30.75
Est. labor hours per acre	0.90

---

---

**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education**  
**Region 2 - North Central North Dakota, 2016**  
**(Farms Sorted By Net Return)**

**Hay, Small Grain on Owned Land**

---

	<u><b>Avg. Of All Farms</b></u>
Number of farms	7
Acres	42.77
Yield per acre (ton)	2.96
Operators share of yield %	100.00
Value per ton	44.89
Other product return per acre	7.22
Total product return per acre	140.27
Gross return per acre	140.27
<b>Direct Expenses</b>	
Seed	11.54
Fertilizer	20.99
Crop chemicals	6.46
Fuel & oil	7.90
Repairs	17.09
Custom hire	2.07
Operating interest	2.32
Miscellaneous	0.93
Total direct expenses per acre	69.31
Return over direct exp per acre	70.97
<b>Overhead Expenses</b>	
Custom hire	2.95
Hired labor	2.91
Machinery leases	1.76
RE & pers. property taxes	4.47
Farm insurance	3.67
Utilities	2.38
Dues & professional fees	2.00
Interest	10.00
Mach & bldg depreciation	12.73
Miscellaneous	1.92
Total overhead expenses per acre	44.79
Total dir & ovhd expenses per acre	114.10
Net return per acre	26.18
Government payments	16.05
Net return with govt pmts	42.22
Labor & management charge	14.14
Net return over lbr & mgt	28.09
<b>Cost of Production</b>	
Total direct expense per ton	23.38
Total dir & ovhd exp per ton	38.49
Less govt & other income	30.64
With labor & management	35.41
Net value per unit	44.89
Machinery cost per acre	48.75
Est. labor hours per acre	1.21

---

**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education**  
**Region 2 - North Central North Dakota, 2016**  
**(Farms Sorted By Net Return)**

**Pasture on Owned Land**

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	28	5	5	6
Acres	443.73	365.00	315.00	647.31
Yield per acre (aum)	1.02	0.93	0.86	1.20
Operators share of yield %	100.00	100.00	100.00	100.00
Value per aum	16.40	15.74	16.80	17.34
Total product return per acre	16.71	14.63	14.46	20.87
Other crop income per acre	0.19	-	-	-
Gross return per acre	16.90	14.63	14.46	20.87
<b>Direct Expenses</b>				
Fuel & oil	0.41	1.15	0.35	0.24
Repairs	0.88	2.05	0.67	0.63
Total direct expenses per acre	1.69	3.38	1.09	0.93
Return over direct exp per acre	15.22	11.26	13.37	19.93
<b>Overhead Expenses</b>				
RE & pers. property taxes	3.63	7.13	4.83	2.35
Farm insurance	0.20	0.53	0.16	0.10
Interest	9.45	36.92	2.27	2.61
Mach & bldg depreciation	1.10	3.24	1.21	0.43
Miscellaneous	0.47	0.97	0.35	0.26
Total overhead expenses per acre	14.85	48.78	8.81	5.73
Total dir & ovhd expenses per acre	16.54	52.16	9.90	6.67
Net return per acre	0.37	-37.53	4.56	14.20

**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education**  
**Region 2 - North Central North Dakota, 2016**  
**(Farms Sorted By Net Return)**

**Pasture on Cash Rent**

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	38	7	7	8
Acres	705.77	205.49	432.15	255.83
Yield per acre (aum)	0.98	1.04	1.03	1.47
Operators share of yield %	100.00	100.00	100.00	100.00
Value per aum	16.61	14.87	14.72	15.95
Total product return per acre	16.29	15.52	15.16	23.50
Other crop income per acre	0.32	-	-	4.17
Gross return per acre	16.61	15.52	15.16	27.67
<b>Direct Expenses</b>				
Fuel & oil	0.36	0.81	0.24	0.35
Repairs	0.85	1.29	0.71	0.64
Land rent	16.22	29.30	13.84	13.50
Total direct expenses per acre	17.74	31.97	14.91	14.56
Return over direct exp per acre	-1.14	-16.45	0.25	13.11
<b>Overhead Expenses</b>				
Mach & bldg depreciation	0.86	2.80	0.56	0.39
Miscellaneous	0.77	1.30	0.68	0.88
Total overhead expenses per acre	1.63	4.10	1.24	1.27
Total dir & ovhd expenses per acre	19.37	36.07	16.15	15.82
Net return per acre	-2.76	-20.55	-0.99	11.85

---

**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education**  
**Region 2 - North Central North Dakota, 2016**  
**(Farms Sorted By Net Return)**

**Peas, Field on Owned Land**

---

	<u><b>Avg. Of All Farms</b></u>
Number of farms	8
Acres	168.84
Yield per acre (bu.)	45.31
Operators share of yield %	100.00
Value per bu.	6.60
Total product return per acre	298.91
Crop insurance per acre	8.21
Other crop income per acre	2.73
Gross return per acre	309.85
<b>Direct Expenses</b>	
Seed	39.48
Fertilizer	16.30
Crop chemicals	38.13
Crop insurance	13.34
Fuel & oil	9.65
Repairs	19.69
Custom hire	10.57
Operating interest	4.53
Miscellaneous	3.43
Total direct expenses per acre	155.12
Return over direct exp per acre	154.73
<b>Overhead Expenses</b>	
Custom hire	4.48
Hired labor	16.20
Machinery leases	0.27
Building leases	0.65
RE & pers. property taxes	6.01
Farm insurance	4.22
Utilities	3.46
Dues & professional fees	1.02
Interest	18.44
Mach & bldg depreciation	36.09
Miscellaneous	2.12
Total overhead expenses per acre	92.96
Total dir & ovhd expenses per acre	248.08
Net return per acre	61.77
Government payments	21.40
Net return with govt pmts	83.17
Labor & management charge	23.06
Net return over lbr & mgt	60.11
<b>Cost of Production</b>	
Total direct expense per bu.	3.42
Total dir & ovhd exp per bu.	5.48
Less govt & other income	4.76
With labor & management	5.27
Net value per unit	6.60
Machinery cost per acre	79.26
Est. labor hours per acre	1.44

---

---

**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education**  
**Region 2 - North Central North Dakota, 2016**  
**(Farms Sorted By Net Return)**

**Peas, Field on Cash Rent**

---

	<u><b>Avg. Of All Farms</b></u>
Number of farms	17
Acres	272.86
Yield per acre (bu.)	27.70
Operators share of yield %	100.00
Value per bu.	8.05
Total product return per acre	222.84
Crop insurance per acre	60.78
Other crop income per acre	1.01
Gross return per acre	284.62
<b>Direct Expenses</b>	
Seed	38.76
Fertilizer	13.91
Crop chemicals	38.13
Crop insurance	13.65
Fuel & oil	12.06
Repairs	22.62
Custom hire	7.08
Land rent	48.90
Machinery leases	0.55
Operating interest	7.00
Miscellaneous	0.77
Total direct expenses per acre	203.42
Return over direct exp per acre	81.20
<b>Overhead Expenses</b>	
Custom hire	2.75
Hired labor	9.84
Machinery leases	1.15
Building leases	0.94
Farm insurance	4.26
Utilities	2.33
Dues & professional fees	0.89
Interest	5.23
Mach & bldg depreciation	30.08
Miscellaneous	2.96
Total overhead expenses per acre	60.43
Total dir & ovhd expenses per acre	263.85
Net return per acre	20.77
Government payments	21.21
Net return with govt pmts	41.98
Labor & management charge	25.16
Net return over lbr & mgt	16.82
<b>Cost of Production</b>	
Total direct expense per bu.	7.34
Total dir & ovhd exp per bu.	9.53
Less govt & other income	6.53
With labor & management	7.44
Net value per unit	8.05
Machinery cost per acre	78.11
Est. labor hours per acre	1.38

---

**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education**  
**Region 2 - North Central North Dakota, 2016**  
**(Farms Sorted By Net Return)**

**Soybeans on Owned Land**

	<u>Avg. Of</u> <u>All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	47	9	10	10
Acres	281.76	212.97	263.39	267.93
Yield per acre (bu.)	38.30	29.40	39.15	47.30
Operators share of yield %	100.00	100.00	100.00	100.00
Value per bu.	8.93	8.75	8.82	8.93
Total product return per acre	341.91	257.20	345.29	422.52
Hedging gains/losses per acre	3.64	-	-	6.47
Crop insurance per acre	19.47	15.82	0.71	8.14
Other crop income per acre	5.31	9.06	1.76	6.11
Gross return per acre	370.33	282.09	347.75	443.24
<b>Direct Expenses</b>				
Seed	69.35	62.39	59.76	71.82
Fertilizer	11.73	15.72	17.70	10.86
Crop chemicals	21.53	21.51	25.89	20.53
Crop insurance	14.13	14.21	11.78	11.99
Fuel & oil	9.77	12.30	9.70	8.40
Repairs	20.33	21.76	24.82	16.72
Custom hire	1.44	3.06	2.30	1.05
Operating interest	3.96	4.85	3.41	1.43
Miscellaneous	1.01	2.82	0.45	1.84
Total direct expenses per acre	153.25	158.61	155.81	144.65
Return over direct exp per acre	217.08	123.48	191.94	298.59
<b>Overhead Expenses</b>				
Custom hire	1.26	1.15	2.34	0.86
Hired labor	6.29	4.10	6.89	4.04
Machinery leases	2.93	4.62	3.18	1.36
Building leases	0.26	0.12	0.33	0.81
RE & pers. property taxes	7.30	7.74	7.44	6.89
Farm insurance	4.47	5.13	3.74	3.69
Utilities	3.37	3.27	2.41	3.47
Dues & professional fees	0.75	1.86	0.74	0.43
Interest	21.70	30.10	16.20	18.97
Mach & bldg depreciation	34.04	28.97	27.93	37.64
Miscellaneous	3.05	5.16	2.84	4.16
Total overhead expenses per acre	85.42	92.22	74.06	82.32
Total dir & ovhd expenses per acre	238.67	250.82	229.87	226.96
Net return per acre	131.66	31.26	117.88	216.27
Government payments	24.70	21.06	24.87	23.14
Net return with govt pmts	156.36	52.32	142.75	239.42
Labor & management charge	22.87	22.21	20.23	23.14
Net return over lbr & mgt	133.49	30.12	122.53	216.28
<b>Cost of Production</b>				
Total direct expense per bu.	4.00	5.40	3.98	3.06
Total dir & ovhd exp per bu.	6.23	8.53	5.87	4.80
Less govt & other income	4.84	6.97	5.17	3.87
With labor & management	5.44	7.73	5.69	4.36
Net value per unit	9.02	8.75	8.82	9.07
Machinery cost per acre	70.55	73.05	72.60	67.64
Est. labor hours per acre	1.22	1.17	1.14	1.19



**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education**  
**Region 2 - North Central North Dakota, 2016**  
**(Farms Sorted By Net Return)**

**Soybeans on Cash Rent**

	<u>Avg. Of</u> <u>All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	78	15	15	16
Acres	503.09	314.54	639.12	591.95
Yield per acre (bu.)	39.25	32.48	39.28	44.46
Operators share of yield %	100.00	100.00	100.00	100.00
Value per bu.	8.98	8.84	9.03	9.08
Total product return per acre	352.37	286.98	354.79	403.60
Hedging gains/losses per acre	0.74	-	-	1.13
Crop insurance per acre	10.60	9.31	6.20	13.36
Other crop income per acre	2.33	-	4.95	1.74
Gross return per acre	366.05	296.29	365.94	419.84
<b>Direct Expenses</b>				
Seed	68.56	75.90	62.55	66.23
Fertilizer	13.06	21.75	10.57	9.85
Crop chemicals	22.38	18.27	24.77	18.26
Crop insurance	13.51	14.70	13.69	13.06
Fuel & oil	9.71	11.69	10.32	8.92
Repairs	19.66	21.10	23.06	16.57
Custom hire	2.37	4.42	2.74	1.58
Land rent	54.48	47.91	56.42	56.90
Operating interest	5.25	5.29	5.32	4.52
Miscellaneous	1.65	3.36	2.24	0.71
Total direct expenses per acre	210.63	224.38	212.86	196.60
Return over direct exp per acre	155.41	71.91	153.08	223.23
<b>Overhead Expenses</b>				
Custom hire	1.47	2.45	2.58	0.48
Hired labor	6.13	6.36	5.48	4.10
Machinery leases	5.78	2.93	9.66	4.69
Farm insurance	4.16	4.66	4.96	3.67
Utilities	3.03	2.75	3.58	2.82
Dues & professional fees	1.00	1.91	0.88	0.82
Interest	3.16	5.40	2.97	4.03
Mach & bldg depreciation	26.55	32.81	27.15	25.83
Miscellaneous	2.53	2.56	2.22	2.16
Total overhead expenses per acre	53.82	61.84	59.49	48.60
Total dir & ovhd expenses per acre	264.46	286.22	272.36	245.20
Net return per acre	101.59	10.07	93.59	174.63
Government payments	23.40	28.36	24.12	18.41
Net return with govt pmts	124.99	38.42	117.70	193.04
Labor & management charge	24.96	25.85	24.16	24.44
Net return over lbr & mgt	100.03	12.57	93.55	168.60
<b>Cost of Production</b>				
Total direct expense per bu.	5.37	6.91	5.42	4.42
Total dir & ovhd exp per bu.	6.74	8.81	6.93	5.51
Less govt & other income	5.79	7.65	6.04	4.74
With labor & management	6.43	8.45	6.65	5.29
Net value per unit	9.00	8.84	9.03	9.10
Machinery cost per acre	68.16	80.68	77.83	62.34
Est. labor hours per acre	1.18	1.42	1.04	1.04

---

**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education**  
**Region 2 - North Central North Dakota, 2016**  
**(Farms Sorted By Net Return)**

**Soybeans on Share Rent**

---

	<u><b>Avg. Of All Farms</b></u>
Number of farms	23
Acres	318.46
Yield per acre (bu.)	37.93
Operators share of yield %	62.01
Value per bu.	8.90
Total product return per acre	209.34
Hedging gains/losses per acre	1.07
Crop insurance per acre	18.20
Other crop income per acre	3.27
Gross return per acre	231.88
<b>Direct Expenses</b>	
Seed	48.88
Fertilizer	14.17
Crop chemicals	18.10
Crop insurance	9.62
Fuel & oil	7.52
Repairs	15.81
Operating interest	3.49
Miscellaneous	5.39
Total direct expenses per acre	122.97
Return over direct exp per acre	108.91
<b>Overhead Expenses</b>	
Custom hire	1.40
Hired labor	4.17
Machinery leases	2.13
Farm insurance	3.37
Utilities	2.67
Interest	1.59
Mach & bldg depreciation	31.02
Miscellaneous	3.18
Total overhead expenses per acre	49.54
Total dir & ovhd expenses per acre	172.51
Net return per acre	59.37
Government payments	17.12
Net return with govt pmts	76.49
Labor & management charge	19.48
Net return over lbr & mgt	57.01
<b>Cost of Production</b>	
Total direct expense per bu.	5.23
Total dir & ovhd exp per bu.	7.33
Less govt & other income	5.65
With labor & management	6.48
Net value per unit	8.95
Machinery cost per acre	59.27
Est. labor hours per acre	0.90

---

---

**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education**  
**Region 2 - North Central North Dakota, 2016**  
**(Farms Sorted By Net Return)**

**Sunflowers on Owned Land**

---

	<u><b>Avg. Of All Farms</b></u>
Number of farms	9
Acres	179.07
Yield per acre (cwt.)	19.68
Operators share of yield %	100.00
Value per cwt.	17.10
Total product return per acre	336.40
Crop insurance per acre	20.57
Gross return per acre	356.97
<b>Direct Expenses</b>	
Seed	38.84
Fertilizer	50.22
Crop chemicals	38.98
Crop insurance	15.52
Fuel & oil	11.39
Repairs	22.95
Custom hire	1.05
Operating interest	6.98
Total direct expenses per acre	186.05
Return over direct exp per acre	170.92
<b>Overhead Expenses</b>	
Custom hire	2.59
Hired labor	7.57
Machinery leases	1.90
Building leases	0.77
RE & pers. property taxes	6.14
Farm insurance	4.38
Utilities	2.85
Interest	19.84
Mach & bldg depreciation	32.57
Miscellaneous	3.43
Total overhead expenses per acre	82.05
Total dir & ovhd expenses per acre	268.10
Net return per acre	88.87
Government payments	20.19
Net return with govt pmts	109.06
Labor & management charge	24.89
Net return over lbr & mgt	84.17
<b>Cost of Production</b>	
Total direct expense per cwt.	9.46
Total dir & ovhd exp per cwt.	13.63
Less govt & other income	11.55
With labor & management	12.82
Net value per unit	17.10
Machinery cost per acre	72.08
Est. labor hours per acre	1.25

---

---

**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education**  
**Region 2 - North Central North Dakota, 2016**  
**(Farms Sorted By Net Return)**

**Sunflowers on Cash Rent**

---

	<u><b>Avg. Of All Farms</b></u>
Number of farms	18
Acres	253.71
Yield per acre (cwt.)	16.41
Operators share of yield %	100.00
Value per cwt.	17.08
Total product return per acre	280.20
Crop insurance per acre	34.74
Other crop income per acre	3.66
Gross return per acre	318.60
<b>Direct Expenses</b>	
Seed	38.80
Fertilizer	42.37
Crop chemicals	33.74
Crop insurance	17.26
Drying expense	0.64
Fuel & oil	10.71
Repairs	20.67
Custom hire	4.30
Land rent	53.69
Operating interest	8.28
Miscellaneous	1.21
Total direct expenses per acre	231.67
Return over direct exp per acre	86.93
<b>Overhead Expenses</b>	
Custom hire	4.02
Hired labor	8.89
Machinery leases	2.64
Building leases	0.92
Farm insurance	3.72
Utilities	2.60
Dues & professional fees	1.19
Interest	2.20
Mach & bldg depreciation	26.75
Miscellaneous	3.14
Total overhead expenses per acre	56.07
Total dir & ovhd expenses per acre	287.75
Net return per acre	30.85
Government payments	19.36
Net return with govt pmts	50.21
Labor & management charge	28.09
Net return over lbr & mgt	22.13
<b>Cost of Production</b>	
Total direct expense per cwt.	14.12
Total dir & ovhd exp per cwt.	17.54
Less govt & other income	14.02
With labor & management	15.73
Net value per unit	17.08
Machinery cost per acre	68.61
Est. labor hours per acre	1.39

---

---

**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education**  
**Region 2 - North Central North Dakota, 2016**  
**(Farms Sorted By Net Return)**

**Wheat, Durum on Owned Land**

---

	<u><b>Avg. Of All Farms</b></u>
Number of farms	12
Acres	180.80
Yield per acre (bu.)	41.81
Operators share of yield %	100.00
Value per bu.	5.47
Total product return per acre	228.62
Crop insurance per acre	48.64
Gross return per acre	277.26
<b>Direct Expenses</b>	
Seed	27.17
Fertilizer	61.86
Crop chemicals	46.03
Crop insurance	20.56
Fuel & oil	8.31
Repairs	16.76
Custom hire	10.20
Operating interest	6.22
Miscellaneous	0.36
Total direct expenses per acre	197.47
Return over direct exp per acre	79.79
<b>Overhead Expenses</b>	
Custom hire	2.47
Hired labor	8.21
Machinery leases	0.59
Building leases	0.55
RE & pers. property taxes	5.83
Farm insurance	4.40
Utilities	2.47
Dues & professional fees	0.62
Interest	23.65
Mach & bldg depreciation	25.77
Miscellaneous	3.12
Total overhead expenses per acre	77.68
Total dir & ovhd expenses per acre	275.15
Net return per acre	2.11
Government payments	20.82
Net return with govt pmts	22.93
Labor & management charge	22.83
Net return over lbr & mgt	0.10
<b>Cost of Production</b>	
Total direct expense per bu.	4.72
Total dir & ovhd exp per bu.	6.58
Less govt & other income	4.92
With labor & management	5.46
Net value per unit	5.47
Machinery cost per acre	66.51
Est. labor hours per acre	1.16

---

---

**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education**  
**Region 2 - North Central North Dakota, 2016**  
**(Farms Sorted By Net Return)**

**Wheat, Durum on Cash Rent**

---

	<u>Avg. Of All Farms</u>
Number of farms	15
Acres	297.30
Yield per acre (bu.)	45.72
Operators share of yield %	100.00
Value per bu.	5.48
Total product return per acre	250.68
Crop insurance per acre	40.81
Other crop income per acre	0.60
Gross return per acre	292.09
<b>Direct Expenses</b>	
Seed	27.29
Fertilizer	59.71
Crop chemicals	41.20
Crop insurance	18.33
Fuel & oil	9.37
Repairs	19.61
Custom hire	9.14
Land rent	46.58
Operating interest	5.15
Miscellaneous	0.42
Total direct expenses per acre	236.78
Return over direct exp per acre	55.30
<b>Overhead Expenses</b>	
Custom hire	2.80
Hired labor	9.40
Machinery leases	1.67
Building leases	1.50
Farm insurance	4.42
Utilities	2.36
Dues & professional fees	0.79
Interest	4.25
Mach & bldg depreciation	31.37
Miscellaneous	2.46
Total overhead expenses per acre	61.02
Total dir & ovhd expenses per acre	297.81
Net return per acre	-5.72
Government payments	21.39
Net return with govt pmts	15.67
Labor & management charge	21.98
Net return over lbr & mgt	-6.31
<b>Cost of Production</b>	
Total direct expense per bu.	5.18
Total dir & ovhd exp per bu.	6.51
Less govt & other income	5.14
With labor & management	5.62
Net value per unit	5.48
Machinery cost per acre	75.43
Est. labor hours per acre	1.15

---

**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education**  
**Region 2 - North Central North Dakota, 2016**  
**(Farms Sorted By Net Return)**

**Wheat, Spring on Owned Land**

	<u>Avg. Of</u> <u>All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	50	10	10	10
Acres	258.74	168.51	246.65	301.73
Yield per acre (bu.)	53.43	46.20	48.69	67.16
Operators share of yield %	100.00	100.00	100.00	100.00
Value per bu.	4.74	4.63	4.70	5.02
Other product return per acre	0.02	-	0.09	-
Total product return per acre	253.32	214.03	228.77	336.90
Crop insurance per acre	8.70	2.65	6.47	13.81
Other crop income per acre	1.95	3.96	-	1.26
Gross return per acre	263.96	220.65	235.23	351.98
<b>Direct Expenses</b>				
Seed	15.22	14.56	12.04	16.36
Fertilizer	53.24	53.64	52.87	57.16
Crop chemicals	31.99	41.24	23.86	33.69
Crop insurance	13.71	17.69	14.27	13.04
Fuel & oil	10.62	10.59	9.87	8.84
Repairs	19.90	26.37	23.09	15.22
Custom hire	4.04	13.71	1.65	2.33
Operating interest	3.97	3.69	3.48	4.18
Miscellaneous	1.31	0.29	0.13	1.21
Total direct expenses per acre	154.00	181.77	141.26	152.02
Return over direct exp per acre	109.96	38.88	93.97	199.96
<b>Overhead Expenses</b>				
Custom hire	1.56	2.22	1.84	1.26
Hired labor	6.57	10.91	6.10	8.88
Machinery leases	1.29	1.05	0.59	0.73
Building leases	0.18	0.20	-	0.52
RE & pers. property taxes	7.45	5.81	9.04	7.02
Farm insurance	4.75	4.24	3.51	6.06
Utilities	3.61	3.59	3.19	3.76
Dues & professional fees	0.86	0.68	0.52	0.55
Interest	13.17	16.70	7.60	14.25
Mach & bldg depreciation	36.98	29.88	39.67	36.83
Miscellaneous	2.76	2.27	1.82	2.94
Total overhead expenses per acre	79.17	77.56	73.87	82.81
Total dir & ovhd expenses per acre	233.17	259.33	215.13	234.83
Net return per acre	30.79	-38.68	20.10	117.15
Government payments	27.62	25.63	26.43	26.81
Net return with govt pmts	58.42	-13.05	46.53	143.96
Labor & management charge	22.99	22.35	22.80	26.42
Net return over lbr & mgt	35.43	-35.40	23.73	117.53
<b>Cost of Production</b>				
Total direct expense per bu.	2.88	3.93	2.90	2.26
Total dir & ovhd exp per bu.	4.36	5.61	4.42	3.50
Less govt & other income	3.65	4.92	3.74	2.87
With labor & management	4.08	5.40	4.21	3.27
Net value per unit	4.74	4.63	4.70	5.02
Machinery cost per acre	74.66	84.71	79.26	64.49
Est. labor hours per acre	1.28	1.70	1.25	1.31

**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education**  
**Region 2 - North Central North Dakota, 2016**  
**(Farms Sorted By Net Return)**

**Wheat, Spring on Cash Rent**

	<u>Avg. Of</u> <u>All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	83	16	16	17
Acres	482.06	356.25	600.09	452.50
Yield per acre (bu.)	52.91	46.05	50.60	64.33
Operators share of yield %	100.00	100.00	100.00	100.00
Value per bu.	4.75	4.61	4.70	4.83
Total product return per acre	251.15	212.25	237.95	310.99
Hedging gains/losses per acre	0.06	-	-	-
Crop insurance per acre	15.74	2.43	18.16	39.31
Other crop income per acre	2.91	1.26	1.42	5.78
Gross return per acre	269.86	215.94	257.52	356.07
<b>Direct Expenses</b>				
Seed	14.48	16.23	13.73	15.94
Fertilizer	56.43	60.07	55.85	61.72
Crop chemicals	32.20	33.01	32.56	31.16
Crop insurance	15.68	14.52	15.29	18.52
Fuel & oil	9.17	12.10	8.04	8.64
Repairs	19.44	21.16	18.01	17.24
Custom hire	3.21	5.66	4.86	1.88
Land rent	49.21	52.34	45.78	55.18
Operating interest	5.24	4.48	5.78	3.54
Miscellaneous	1.61	1.52	0.52	1.61
Total direct expenses per acre	206.67	221.07	200.43	215.44
Return over direct exp per acre	63.19	-5.13	57.09	140.63
<b>Overhead Expenses</b>				
Custom hire	2.19	2.85	3.55	0.98
Hired labor	5.43	8.28	5.85	2.34
Machinery leases	3.90	4.42	0.99	13.16
Building leases	0.53	0.42	0.89	0.48
Farm insurance	4.19	4.17	4.02	4.36
Utilities	2.81	3.72	2.77	2.81
Dues & professional fees	0.78	2.39	0.39	0.65
Interest	3.25	3.90	3.44	1.75
Mach & bldg depreciation	29.16	31.63	29.12	29.76
Miscellaneous	2.37	2.64	2.65	2.15
Total overhead expenses per acre	54.60	64.41	53.67	58.43
Total dir & ovhd expenses per acre	261.27	285.49	254.10	273.87
Net return per acre	8.59	-69.55	3.42	82.20
Government payments	24.60	18.22	21.58	28.01
Net return with govt pmts	33.19	-51.33	25.00	110.20
Labor & management charge	24.39	21.97	23.10	28.70
Net return over lbr & mgt	8.79	-73.30	1.90	81.50
<b>Cost of Production</b>				
Total direct expense per bu.	3.91	4.80	3.96	3.35
Total dir & ovhd exp per bu.	4.94	6.20	5.02	4.26
Less govt & other income	4.12	5.72	4.21	3.12
With labor & management	4.58	6.20	4.66	3.57
Net value per unit	4.75	4.61	4.70	4.83
Machinery cost per acre	69.06	79.57	66.79	71.81
Est. labor hours per acre	1.20	1.37	1.11	1.07



**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education**  
**Region 2 - North Central North Dakota, 2016**  
**(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 farms	25	5	5	5
Acres	361.04	251.68	181.02	542.30
Yield per acre (bu.)	59.02	48.73	48.72	68.89
Operators share of yield %	60.07	58.89	61.62	65.76
Value per bu.	4.64	4.76	4.38	4.62
Total product return per acre	164.68	136.61	131.49	209.50
Crop insurance per acre	6.42	6.35	3.59	-
Other crop income per acre	1.44	-	6.14	-
Gross return per acre	172.55	142.96	141.23	209.50
<b>Direct Expenses</b>				
Seed	9.70	6.99	6.59	8.23
Fertilizer	42.46	51.71	32.54	43.98
Crop chemicals	27.57	29.19	15.19	32.65
Crop insurance	9.67	10.79	6.75	9.30
Fuel & oil	7.48	11.80	5.88	6.69
Repairs	16.69	24.29	12.80	13.94
Custom hire	1.60	7.25	1.81	1.36
Operating interest	3.93	10.61	1.07	2.77
Miscellaneous	2.67	1.03	8.19	-
Total direct expenses per acre	121.76	153.65	90.82	118.91
Return over direct exp per acre	50.79	-10.70	50.41	90.59
<b>Overhead Expenses</b>				
Custom hire	1.76	4.01	1.90	0.24
Hired labor	3.19	8.74	5.81	0.63
Machinery leases	2.83	0.34	-	7.42
Farm insurance	2.98	3.58	4.06	2.11
Utilities	2.57	5.92	2.32	1.12
Interest	1.57	2.12	0.55	0.57
Mach & bldg depreciation	25.31	29.23	37.39	9.20
Miscellaneous	3.75	4.06	0.92	2.73
Total overhead expenses per acre	43.96	57.99	52.95	24.01
Total dir & ovhd expenses per acre	165.72	211.65	143.77	142.92
Net return per acre	6.83	-68.69	-2.55	66.58
Government payments	17.19	33.66	15.01	15.46
Net return with govt pmts	24.02	-35.03	12.46	82.04
Labor & management charge	19.24	24.18	20.76	17.10
Net return over lbr & mgt	4.78	-59.21	-8.30	64.94
<b>Cost of Production</b>				
Total direct expense per bu.	3.43	5.35	3.03	2.63
Total dir & ovhd exp per bu.	4.67	7.37	4.79	3.16
Less govt & other income	3.97	5.98	3.96	2.81
With labor & management	4.51	6.82	4.66	3.19
Net value per unit	4.64	4.76	4.38	4.62
Machinery cost per acre	56.36	78.56	59.09	39.16
Est. labor hours per acre	1.02	1.59	1.31	0.78

## 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.

**Livestock Enterprise Analysis**  
**North Dakota Farm Business Management Education**  
**Region 2 - North Central North Dakota, 2016**  
**(Farms Sorted By Net Return)**

**Beef Cow-Calf -- 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
Beef Calves sold (lb)	41.91	55.66	26.17	34.13	39.83	51.96
Transferred out (lb)	57.95	76.27	73.33	98.31	60.17	76.83
Cull sales		27.36		20.18		29.35
Other income		0.21		0.40		0.29
Purchased		-11.99		-7.97		-5.58
Transferred in		-34.87		-49.92		-34.43
Inventory change		10.70		32.99		23.15
Gross margin		123.35		128.12		141.55
<b>Direct Expenses</b>						
Protein Vit Minerals (lb.)	4.59	2.53	9.58	5.31	0.97	0.31
Creep / Starter (lb.)	48.65	2.90	10.36	1.14	111.12	5.08
Corn Silage (lb.)	504.65	6.46	516.04	8.41	662.21	8.27
Hay, Alfalfa (lb.)	157.99	3.85	242.61	5.93	125.60	3.71
Hay, Grass (lb.)	953.79	19.51	961.53	16.47	815.50	19.64
Pasture (aum)	1.25	24.30	1.46	39.65	1.03	15.99
Other feed stuffs (lb)	24.83	1.19	80.01	2.12	3.06	0.79
Veterinary		4.26		2.71		4.68
Supplies		2.68		0.12		0.93
Fuel & oil		4.58		3.89		3.19
Repairs		10.39		11.23		8.34
Custom hire		0.76		0.03		1.31
Marketing		0.39		0.43		0.02
Operating interest		1.60		2.88		0.96
Total direct expenses		85.40		100.29		73.22
Return over direct expense		37.95		27.83		68.33
<b>Overhead Expenses</b>						
Custom hire		0.47		0.08		0.79
Hired labor		2.30		2.55		2.70
Farm insurance		2.42		2.45		1.69
Utilities		1.70		1.99		0.94
Interest		2.16		1.24		0.44
Mach & bldg depreciation		11.62		13.03		7.57
Miscellaneous		1.13		0.53		1.04
Total overhead expenses		21.81		21.88		15.17
Total dir & ovhd expenses		107.21		122.17		88.39
Net return		16.14		5.95		53.16
Labor & management charge		12.29		10.83		10.73
Net return over lbr & mgt		3.84		-4.88		42.43
<b>Cost of Production Per Cwt. Produced</b>						
Total direct expense per unit		85.40		100.29		73.22
Total dir & ovhd expense per unit		107.21		122.17		88.39
With other revenue adjustments		115.57		126.89		75.91
With labor and management		127.86		137.72		86.64
Est. labor hours per unit		0.99		0.74		0.97
<b>Other Information</b>						
Number of cows		146.2		179.1		187.7
Pregnancy percentage		91.4		89.6		92.8
Pregnancy loss percentage		5.3		7.9		0.1
Culling percentage		15.3		10.3		18.4
Calving percentage		86.5		82.5		92.6
Weaning percentage		83.3		80.0		89.6
Calves sold per cow		0.96		0.96		1.08
Calf death loss percent		3.8		3.4		2.9
Cow death loss percent		1.6		0.9		1.6
Average weaning weight		604		601		675
Lb. weaned/exposed female		503		481		605
Feed cost per cow		336.38		437.39		349.93
Avg wgt/ Beef Calves sold		597		624		611
Avg price / cwt.		132.82		130.44		130.46

**Livestock Enterprise Analysis**  
**North Dakota Farm Business Management Education**  
**Region 2 - North Central North Dakota, 2016**  
**(Farms Sorted By Net Return)**

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

	<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
Beef Calves sold (lb)	232.1	308.22	144.9	188.94	259.1	338.00
Transferred out (lb)	320.9	422.30	405.9	544.22	391.5	499.79
Cull sales		151.52		111.70		190.90
Other income		1.17		2.23		1.86
Purchased		-66.38		-44.11		-36.33
Transferred in		-193.09		-276.34		-223.97
Inventory change		59.26		182.62		150.58
Gross margin		683.00		709.26		920.84
<b>Direct Expenses</b>						
Protein Vit Minerals (lb.)	25.4	14.03	53.0	29.37	6.3	1.98
Creep / Starter (lb.)	269.4	16.05	57.4	6.30	722.9	33.05
Corn Silage (lb.)	2,794.3	35.76	2,856.7	46.55	4,307.9	53.78
Hay, Alfalfa (lb.)	874.8	21.34	1,343.0	32.82	817.1	24.16
Hay, Grass (lb.)	5,281.2	108.05	5,322.8	91.17	5,305.1	127.80
Pasture (aum)	6.9	134.58	8.1	219.47	6.7	104.04
Other feed stuffs (lb)	137.5	6.56	442.9	11.72	19.9	5.12
Veterinary		23.59		14.99		30.45
Supplies		14.86		0.64		6.03
Fuel & oil		25.34		21.52		20.74
Repairs		57.50		62.14		54.26
Custom hire		4.22		0.19		8.54
Marketing		2.14		2.36		0.11
Operating interest		8.85		15.96		6.27
Total direct expenses		472.88		555.19		476.33
Return over direct expense		210.12		154.06		444.51
<b>Overhead Expenses</b>						
Custom hire		2.60		0.43		5.11
Hired labor		12.76		14.14		17.58
Farm insurance		13.42		13.55		10.98
Utilities		9.42		11.02		6.11
Interest		11.96		6.89		2.87
Mach & bldg depreciation		64.33		72.13		49.28
Miscellaneous		6.28		2.96		6.76
Total overhead expenses		120.78		121.12		98.68
Total dir & ovhd expenses		593.66		676.31		575.01
Net return		89.34		32.95		345.83
Labor & management charge		68.05		59.95		69.82
Net return over lbr & mgt		21.29		-27.00		276.01
<b>Cost of Production Per Cwt. Produced</b>						
Total direct expense per unit		85.40		100.29		73.22
Total dir & ovhd expense per unit		107.21		122.17		88.39
With other revenue adjustments		115.57		126.89		75.91
With labor and management		127.86		137.72		86.64
Est. labor hours per unit		5.50		4.12		6.29
<b>Other Information</b>						
Number of cows		146.2		179.1		187.7
Pregnancy percentage		91.4		89.6		92.8
Pregnancy loss percentage		5.3		7.9		0.1
Culling percentage		15.3		10.3		18.4
Calving percentage		86.5		82.5		92.6
Weaning percentage		83.3		80.0		89.6
Calves sold per cow		0.96		0.96		1.08
Calf death loss percent		3.8		3.4		2.9
Cow death loss percent		1.6		0.9		1.6
Average weaning weight		604		601		675
Lb. weaned/exposed female		503		481		605
Feed cost per cow		336.38		437.39		349.93
Avg wgt/ Beef Calves sold		597		624		611
Avg price / cwt.		132.82		130.44		130.46

**Livestock Enterprise Analysis**  
**North Dakota Farm Business Management Education**  
**Region 2 - North Central North Dakota, 2016**  
**(Farms Sorted By Net Return)**

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

	<u>Avg. Of All Farms</u>	
Number of farms	10	
	Quantity	Value
Beef Calves sold (lb)	84.24	120.91
Transferred out (lb)	5.98	9.37
Cull sales		17.68
Other income		0.41
Purchased		-18.64
Transferred in		-9.35
Inventory change		-20.44
Gross margin		99.93
<b>Direct Expenses</b>		
Protein Vit Minerals (lb.)	4.45	1.40
Corn (bu.)	0.22	0.58
Corn Silage (lb.)	154.39	2.16
Hay, Alfalfa (lb.)	174.37	4.36
Hay, Grass (lb.)	1,053.63	20.90
Pasture (aum)	1.10	14.01
Other feed stuffs (lb)	47.42	2.00
Veterinary		5.69
Supplies		6.40
Fuel & oil		5.79
Repairs		11.21
Custom hire		2.09
Hired labor		1.43
Utilities		2.09
Marketing		0.17
Operating interest		1.43
Total direct expenses		81.72
Return over direct expense		18.22
<b>Overhead Expenses</b>		
Hired labor		0.33
Farm insurance		2.54
Utilities		0.31
Interest		7.81
Mach & bldg depreciation		11.58
Miscellaneous		1.00
Total overhead expenses		23.56
Total dir & ovhd expenses		105.28
Net return		-5.35
Labor & management charge		15.84
Net return over lbr & mgt		-21.18
<b>Cost of Production Per Cwt. Produced</b>		
Total direct expense per unit		81.72
Total dir & ovhd expense per unit		105.28
With other revenue adjustments		126.32
With labor and management		142.15
Est. labor hours per unit		1.11
<b>Other Information</b>		
Number of cows		108.7
Pregnancy percentage		89.6
Pregnancy loss percentage		1.0
Culling percentage		10.8
Calving percentage		88.7
Weaning percentage		84.3
Calves sold per cow		0.77
Calf death loss percent		4.7
Cow death loss percent		0.9
Average weaning weight		565
Lb. weaned/exposed female		476
Feed cost per cow		244.46
Avg wgt/ Beef Calves sold		619
Avg price / cwt.		143.52

**Livestock Enterprise Analysis**  
**North Dakota Farm Business Management Education**  
**Region 2 - North Central North Dakota, 2016**  
**(Farms Sorted By Net Return)**

**Beef Cow-Calf Whole Herd w/Backgrounding -- Average Per Cow**

	<u>Avg. Of All Farms</u>	
Number of farms	10	
	Quantity	Value
Beef Calves sold (lb)	453.5	650.83
Transferred out (lb)	32.2	50.43
Cull sales		95.17
Other income		2.21
Purchased		-100.33
Transferred in		-50.33
Inventory change		-110.03
Gross margin		537.95
<b>Direct Expenses</b>		
Protein Vit Minerals (lb.)	24.0	7.52
Corn (bu.)	1.2	3.11
Corn Silage (lb.)	831.1	11.62
Hay, Alfalfa (lb.)	938.6	23.47
Hay, Grass (lb.)	5,671.6	112.53
Pasture (aum)	5.9	75.43
Other feed stuffs (lb)	255.3	10.79
Veterinary		30.65
Supplies		34.45
Fuel & oil		31.16
Repairs		60.33
Custom hire		11.26
Hired labor		7.72
Utilities		11.23
Marketing		0.91
Operating interest		7.72
Total direct expenses		439.89
Return over direct expense		98.05
<b>Overhead Expenses</b>		
Hired labor		1.76
Farm insurance		13.69
Utilities		1.66
Interest		42.03
Mach & bldg depreciation		62.33
Miscellaneous		5.37
Total overhead expenses		126.83
Total dir & ovhd expenses		566.73
Net return		-28.78
Labor & management charge		85.24
Net return over lbr & mgt		-114.02
<b>Cost of Production Per Cwt. Produced</b>		
Total direct expense per unit		81.72
Total dir & ovhd expense per unit		105.28
With other revenue adjustments		126.32
With labor and management		142.15
Est. labor hours per unit		5.95
<b>Other Information</b>		
Number of cows		108.7
Pregnancy percentage		89.6
Pregnancy loss percentage		1.0
Culling percentage		10.8
Calving percentage		88.7
Weaning percentage		84.3
Calves sold per cow		0.77
Calf death loss percent		4.7
Cow death loss percent		0.9
Average weaning weight		565
Lb. weaned/exposed female		476
Feed cost per cow		244.46
Avg wgt/ Beef Calves sold		619
Avg price / cwt.		143.52

**Livestock Enterprise Analysis**  
**North Dakota Farm Business Management Education**  
**Region 2 - North Central North Dakota, 2016**  
**(Farms Sorted By Net Return)**

**Beef Replacement Heifers -- Average Per Head**

	<u>Avg. Of All Farms</u>	
Number of farms	13	
	Quantity	Value
Beef Replace sold (hd)	0.11	169.98
Transferred out (hd)	0.79	1,142.73
Cull sales (hd)	0.02	14.98
Other income		-
Purchased (hd)	0.05	-55.12
Transferred in (hd)	0.77	-732.01
Inventory change (hd)	-0.11	-208.44
Gross margin		332.12
<b>Direct Expenses</b>		
Protein Vit Minerals (lb.)	32.04	7.40
Creep / Starter (lb.)	41.84	2.89
Corn (bu.)	4.02	10.50
Corn Silage (lb.)	1,276.56	13.42
Hay, Alfalfa (lb.)	924.28	19.94
Hay, Grass (lb.)	1,735.30	38.88
Oats (bu.)	3.29	6.42
Pasture (aum)	3.09	64.11
DDGS, dry (lb.)	50.11	3.01
Other feed stuffs (lb)	103.89	5.38
Breeding fees		16.00
Veterinary		8.37
Supplies		3.14
Fuel & oil		2.86
Repairs		5.95
Custom hire		0.49
Marketing		0.18
Operating interest		1.01
Total direct expenses		209.95
Return over direct expense		122.17
<b>Overhead Expenses</b>		
Hired labor		1.83
Farm insurance		1.57
Utilities		1.20
Interest		1.18
Mach & bldg depreciation		6.49
Miscellaneous		1.10
Total overhead expenses		13.37
Total dir & ovhd expenses		223.33
Net return		108.79
Labor & management charge		7.24
Net return over lbr & mgt		101.56
Est. labor hours per unit		0.67
<b>Other Information</b>		
No. purchased or trans in		45
Number sold or trans out		50
Average number of head		55
Percentage death loss		0.2
Feed cost per average head		171.95

**Livestock Enterprise Analysis**  
**North Dakota Farm Business Management Education**  
**Region 2 - North Central North Dakota, 2016**  
**(Farms Sorted By Net Return)**

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

	<u>Avg. Of All Farms</u>	
Number of farms	13	
	Quantity	Value
Beef Replace sold (hd)	0.1	187.87
Transferred out (hd)	0.9	1,262.98
Cull sales (hd)	0.0	16.56
Other income		-
Purchased (hd)	0.1	-60.92
Transferred in (hd)	0.9	-809.03
Inventory change (hd)	-0.1	-230.38
Gross margin		367.07
<b>Direct Expenses</b>		
Protein Vit Minerals (lb.)	35.4	8.17
Creep / Starter (lb.)	46.2	3.19
Corn (bu.)	4.4	11.60
Corn Silage (lb.)	1,410.9	14.83
Hay, Alfalfa (lb.)	1,021.5	22.04
Hay, Grass (lb.)	1,917.9	42.97
Oats (bu.)	3.6	7.10
Pasture (aum)	3.4	70.86
DDGS, dry (lb.)	55.4	3.32
Other feed stuffs (lb)	114.8	5.95
Breeding fees		17.68
Veterinary		9.25
Supplies		3.47
Fuel & oil		3.16
Repairs		6.58
Custom hire		0.54
Marketing		0.20
Operating interest		1.12
Total direct expenses		232.05
Return over direct expense		135.02
<b>Overhead Expenses</b>		
Hired labor		2.03
Farm insurance		1.74
Utilities		1.33
Interest		1.30
Mach & bldg depreciation		7.17
Miscellaneous		1.21
Total overhead expenses		14.78
Total dir & ovhd expenses		246.83
Net return		120.24
Labor & management charge		8.00
Net return over lbr & mgt		112.24
Est. labor hours per unit		0.74
<b>Other Information</b>		
No. purchased or trans in		45
Number sold or trans out		50
Average number of head		55
Percentage death loss		0.2
Feed cost/head sold/trans		190.04



**Livestock Enterprise Analysis**  
**North Dakota Farm Business Management Education**  
**Region 2 - North Central North Dakota, 2016**  
**(Farms Sorted By Net Return)**

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

	<u>Avg. Of All Farms</u>	
Number of farms	14	
	Quantity	Value
Backgnd Beef sold (lb)	335.80	503.78
Transferred out (lb)	101.01	142.73
Other income		1.26
Transferred in (lb)	-116.23	-156.03
Inventory change (lb)	-221.63	-382.48
Gross margin		109.26
<b>Direct Expenses</b>		
Protein Vit Minerals (lb.)	16.70	3.46
Complete Ration (lb.)	7.31	0.47
Barley (bu.)	0.45	1.12
Corn (bu.)	2.20	5.80
Corn Silage (lb.)	383.39	5.23
Hay, Alfalfa (lb.)	75.18	1.55
Hay, Grass (lb.)	426.66	9.16
Oats (bu.)	0.81	1.87
Pasture (aum)	0.11	2.86
DDGS, wet (lb.)	3.00	0.53
Other feed stuffs (lb)	66.06	1.11
Veterinary		1.39
Supplies		0.95
Fuel & oil		0.82
Repairs		1.93
Custom hire		0.41
Marketing		1.20
Total direct expenses		39.88
Return over direct expense		69.38
<b>Overhead Expenses</b>		
Hired labor		0.68
Farm insurance		0.47
Mach & bldg depreciation		2.35
Miscellaneous		1.04
Total overhead expenses		4.54
Total dir & ovhd expenses		44.42
Net return		64.84
Labor & management charge		2.98
Net return over lbr & mgt		61.86
<b>Cost of Production Per Cwt. Produced</b>		
Total direct expense per unit		132.13
Total dir & ovhd expense per unit		133.17
With other revenue adjustments		133.17
With labor and management		133.85
Est. labor hours per unit		0.20
<b>Other Information</b>		
No. purchased or trans in		43
Number sold or trans out		121
Percentage death loss		0.4
Avg. daily gain (lb.)		1.54
Lb. of conc / lb. of gain		2.03
Lb. of feed / lb. of gain		8.95
Feed cost per cwt. of gain		33.18
Feed cost per head		52.43
Avg wgt / Backgnd Beef sold		694
Avg sales price / cwt.		150.03

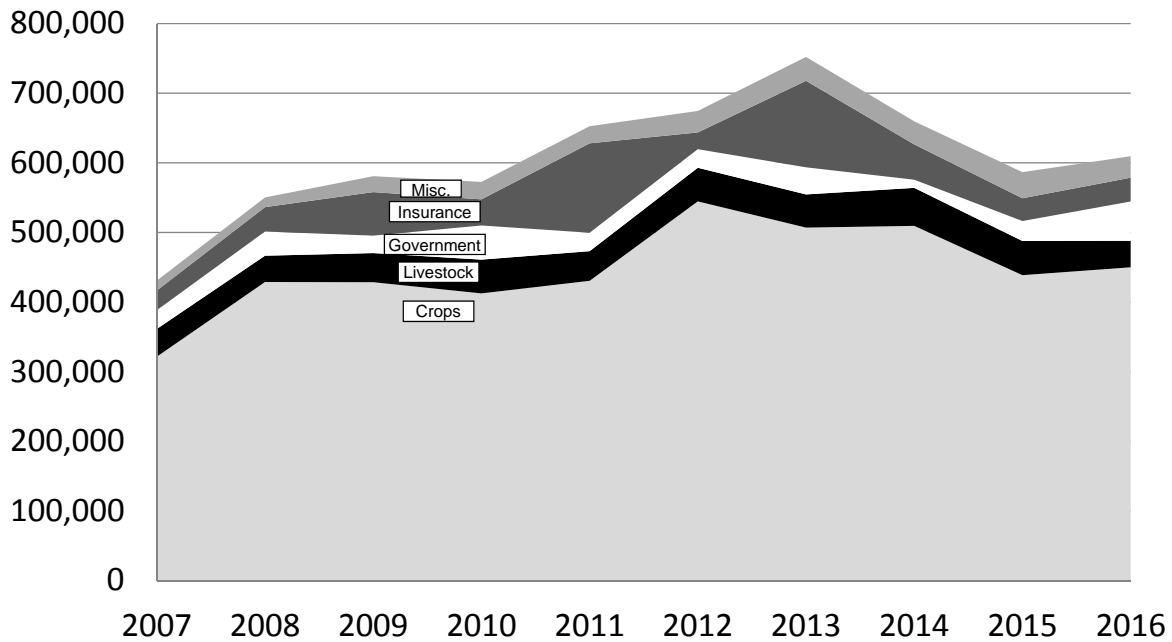
**Livestock Enterprise Analysis**  
**North Dakota Farm Business Management Education**  
**Region 2 - North Central North Dakota, 2016**  
**(Farms Sorted By Net Return)**

**Beef Backgrounding -- Average Per Head**

	<u>Avg. Of All Farms</u>	
Number of farms	14	
	Quantity	Value
Backgnd Beef sold (lb)	530.7	796.14
Transferred out (lb)	159.6	225.56
Other income		1.99
Transferred in (lb)	-183.7	-246.59
Inventory change (lb)	-350.3	-604.45
Gross margin		172.66
<b>Direct Expenses</b>		
Protein Vit Minerals (lb.)	26.4	5.47
Complete Ration (lb.)	11.5	0.75
Barley (bu.)	0.7	1.77
Corn (bu.)	3.5	9.17
Corn Silage (lb.)	605.9	8.26
Hay, Alfalfa (lb.)	118.8	2.45
Hay, Grass (lb.)	674.3	14.47
Oats (bu.)	1.3	2.96
Pasture (aum)	0.2	4.51
DDGS, wet (lb.)	4.7	0.85
Other feed stuffs (lb)	104.4	1.76
Veterinary		2.20
Supplies		1.50
Fuel & oil		1.29
Repairs		3.05
Custom hire		0.65
Marketing		1.90
Total direct expenses		63.02
Return over direct expense		109.64
<b>Overhead Expenses</b>		
Hired labor		1.08
Farm insurance		0.74
Mach & bldg depreciation		3.72
Miscellaneous		1.65
Total overhead expenses		7.18
Total dir & ovhd expenses		70.20
Net return		102.46
Labor & management charge		4.71
Net return over lbr & mgt		97.75
<b>Cost of Production Per Cwt. Produced</b>		
Total direct expense per unit		132.13
Total dir & ovhd expense per unit		133.17
With other revenue adjustments		133.17
With labor and management		133.85
Est. labor hours per unit		0.32
<b>Other Information</b>		
No. purchased or trans in		43
Number sold or trans out		121
Percentage death loss		0.4
Avg. daily gain (lb.)		1.54
Lb. of conc / lb. of gain		2.03
Lb. of feed / lb. of gain		8.95
Feed cost per cwt. of gain		33.18
Feed cost per head		52.43
Avg wgt / Backgnd Beef sold		694
Avg sales price / cwt.		150.03

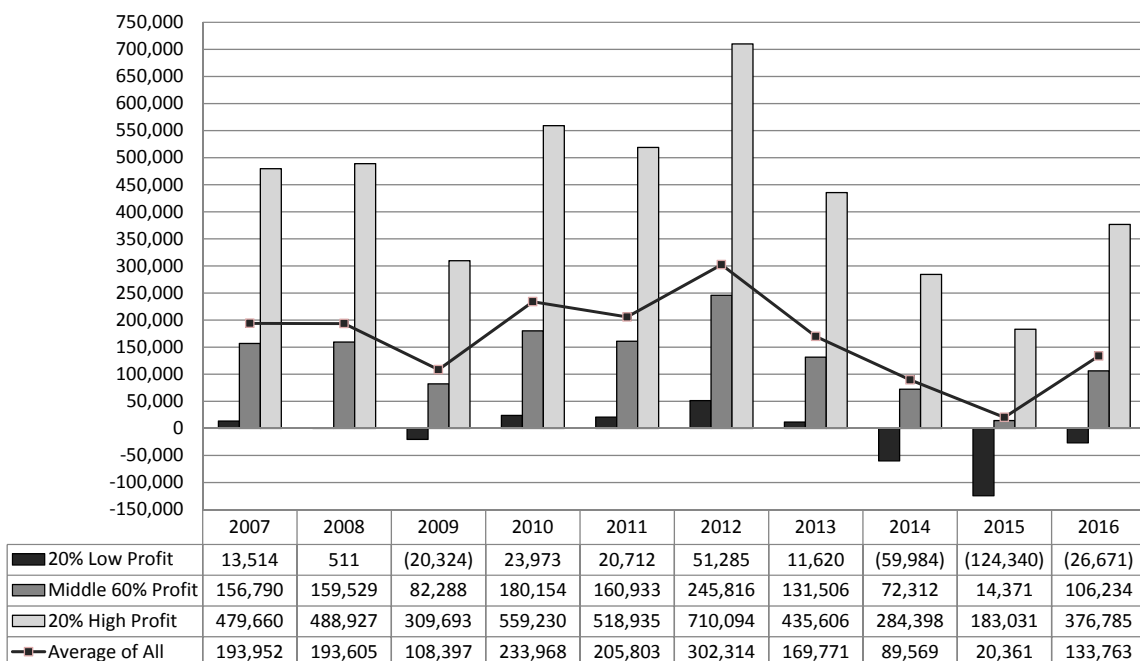
## Figure 1. Gross Cash Income Per Farm

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



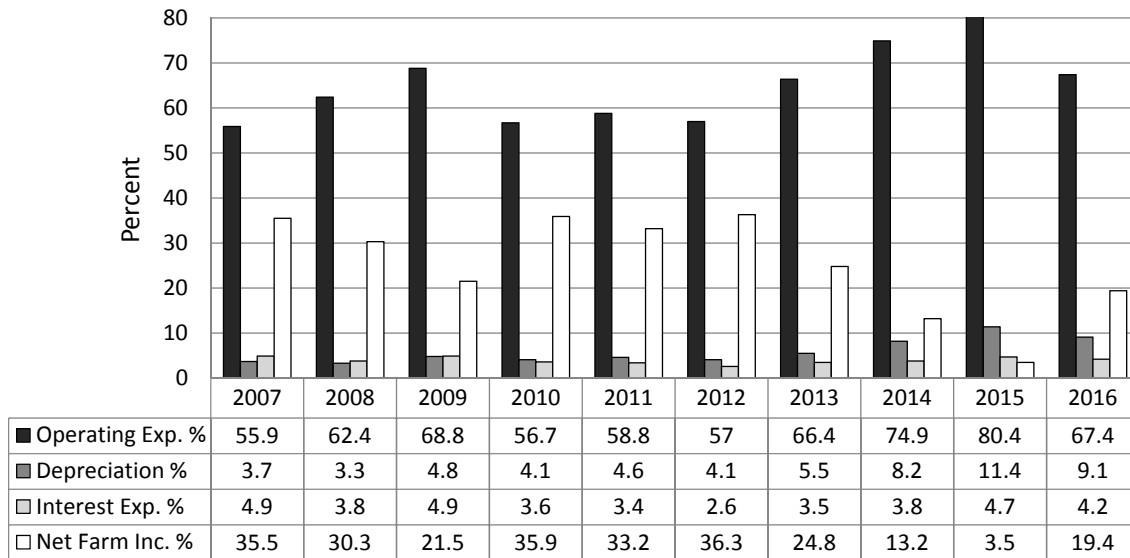
## Figure 2. Net Farm Income (Accrual) Per Farm

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



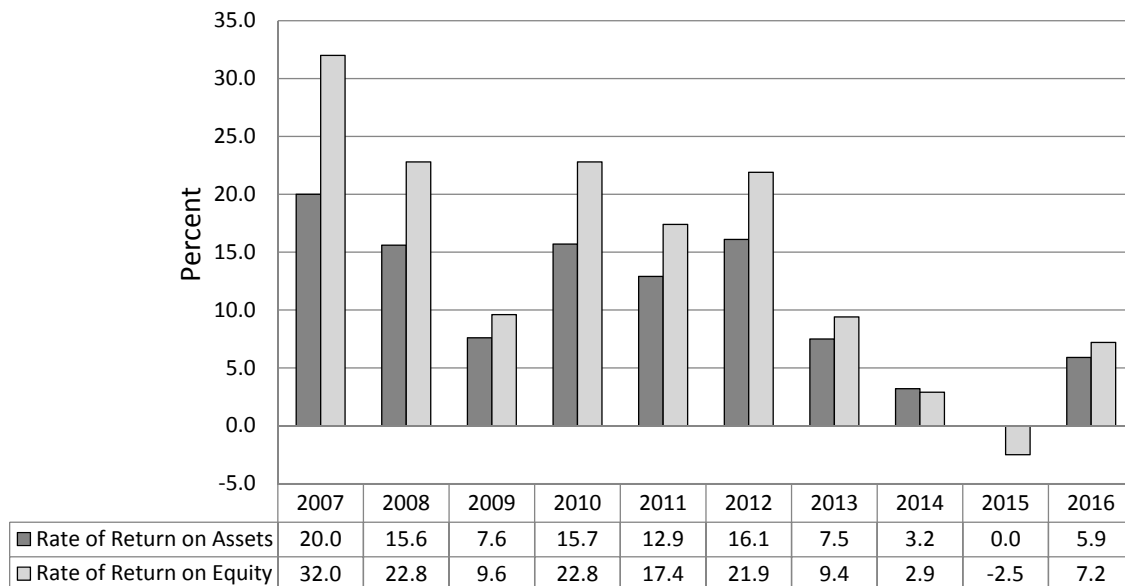
### Figure 3. Financial Efficiency Measures (As Percent of Gross Revenue)

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



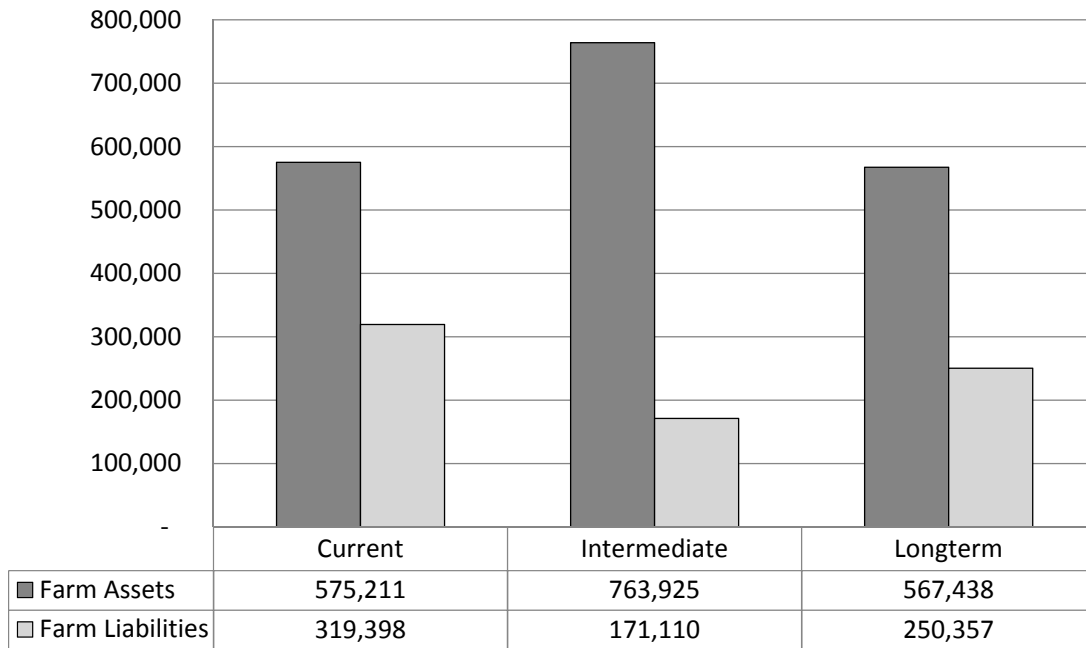
### Figure 4. Profitability Measures Per Farm

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



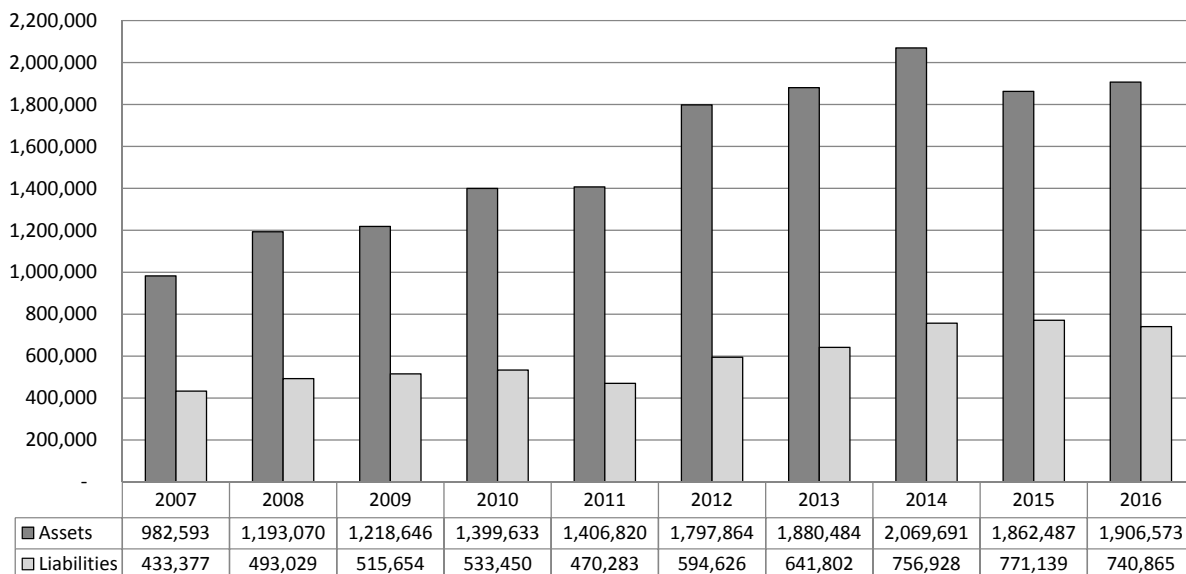
## Figure 5. Assets and Liabilities Per Farm, 2016

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



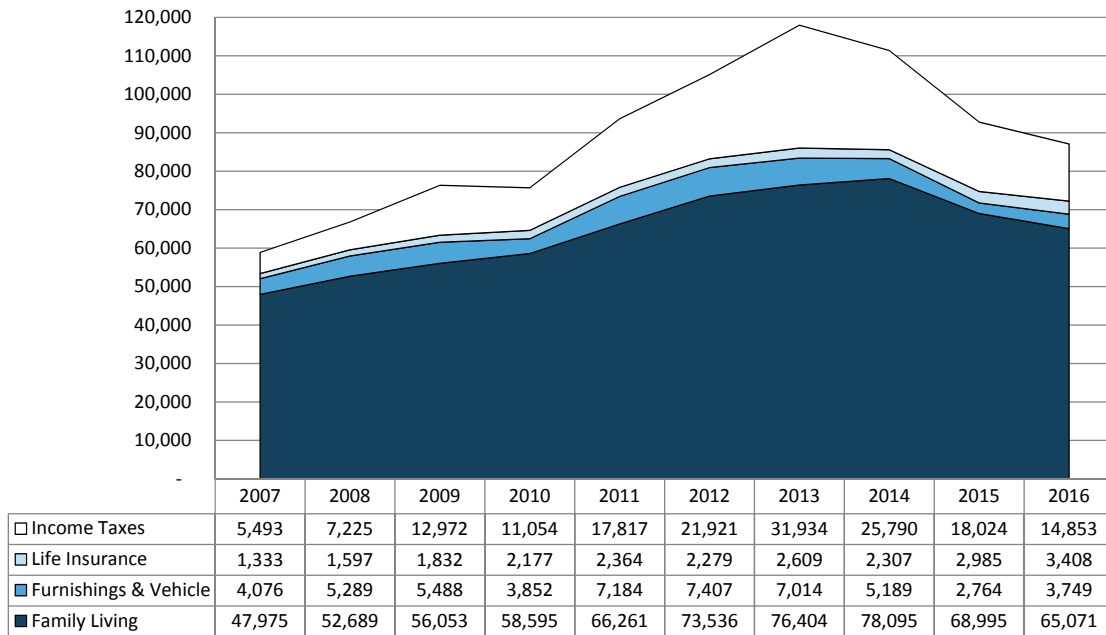
## Figure 6. Total Farm Assets and Liabilities

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



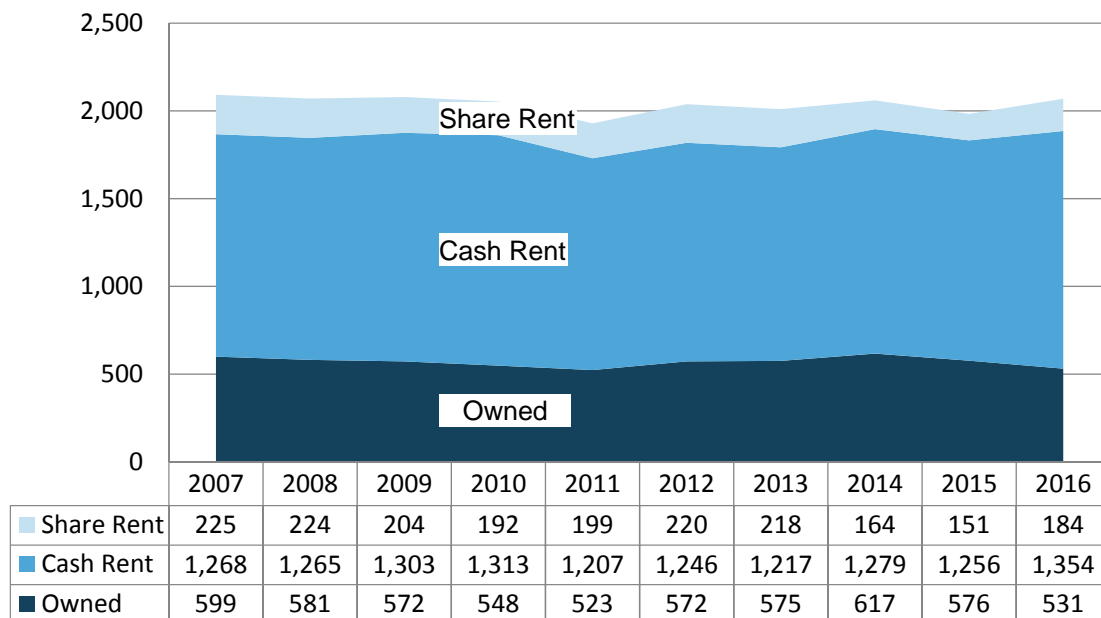
## Figure 7. Household and Personal Expenses

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



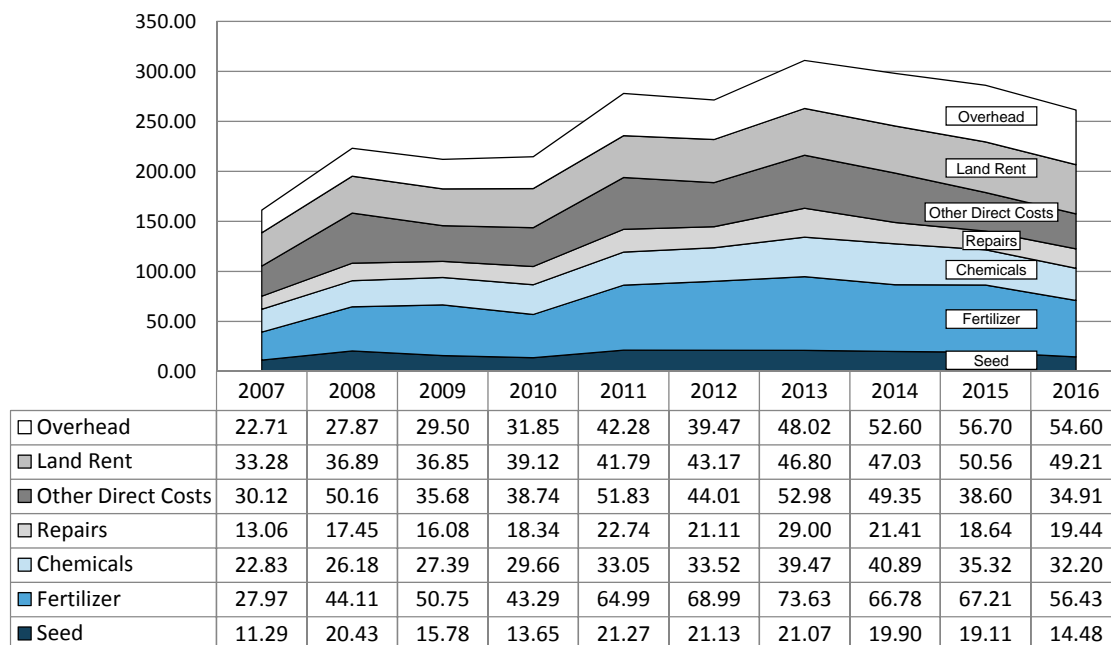
## Figure 8. Crop Acreage Per Farm

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



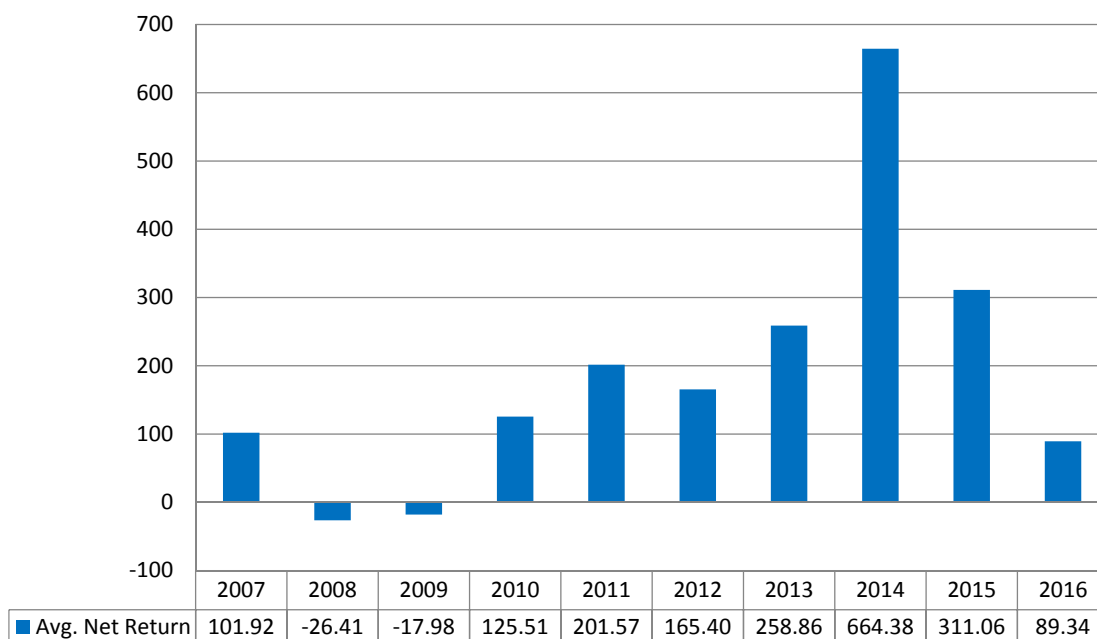
## Figure 9. Spring Wheat Costs Per Acre

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

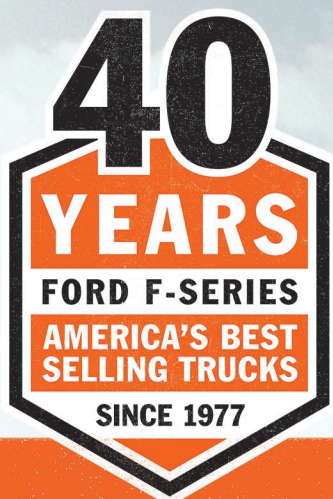


## Figure 10. Average Net Return Per Beef Cow

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







# FOUR DECADES OF

# DOMINANCE



2017 **SUPER DUTY®**



2017 **F-150**

It's not luck. And it isn't coincidence. Since 1977, F-150 and Super Duty® have been the best-selling trucks for some very real and hardcore reasons: Rock-solid Durability. Up-to-the-nanosecond technology. And jaw-dropping capability. Leading the way for 40 straight years is grueling, intense and tough. Yeah. Just the way F-Series likes it.

**Your Northland Ford Dealers are Proud Sponsors of North Dakota FFA**



Northland Ford Dealers  
[BuyFordNow.com](http://BuyFordNow.com)