

# 2018 ANNUAL REPORT

## State Averages

North Dakota Farm and Ranch Business  
Management Education







North Dakota Department of Career  
and Technical Education

Mr. Wayde Sick, State Director

### Board Members

Dr. Brian Duchscherer, Chairperson	Carrington
Ms. Sonia Meehl, Vice Chairperson	Oakes
Ms. Kirsten Baesler	Bismarck
Ms. Maria Effertz Hanson	Velva
Mr. Jeff Fastnacht	Mandan
Dr. Steven Holen	Watford City
Dr. Mark Hagerott	Bismarck
Mr. Josh Johnson	Valley City
Mr. Bryan Klipfel	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 2018.

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

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

5 STAR PARTNER (\$20,000) – CHS Foundation

4 STAR PARTNER (\$15,000) – Asgrow, DEKALB, Channel, Rea, Monsanto

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

2 STAR PARTNER (\$6,000) – ADM, Agtegra Cooperative, International Certification Services, Inc., Nodak Insurance Company

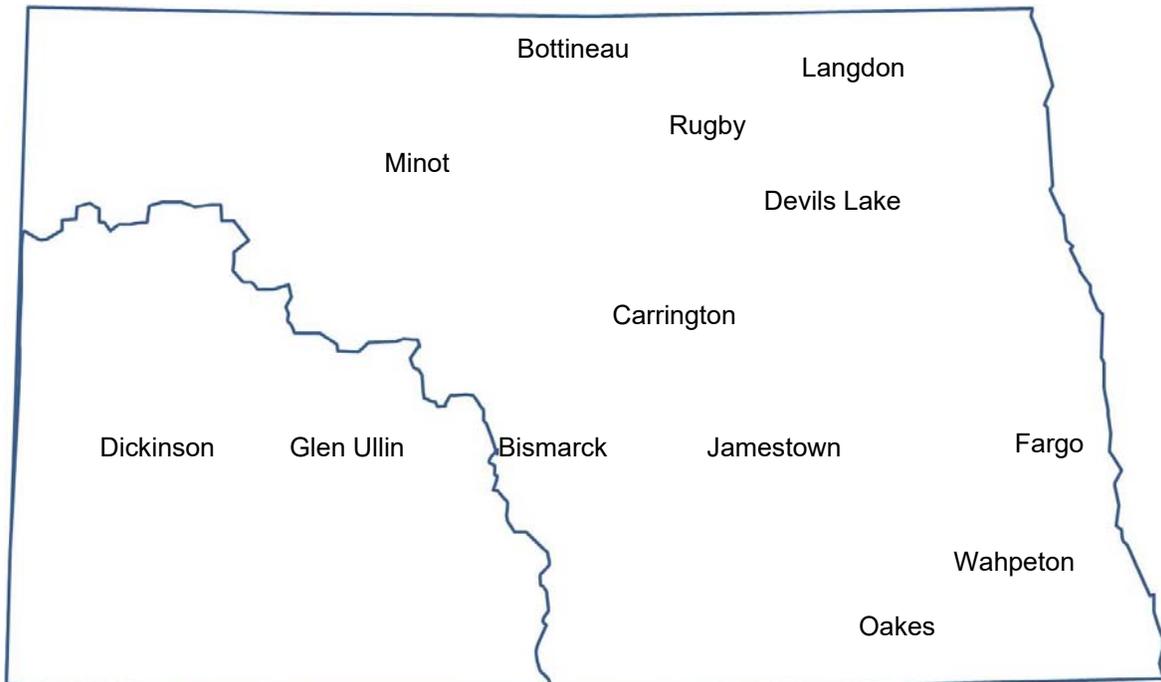
1 STAR PARTNERS (\$3,000) -- CF Industries, First International Bank & Trust, International Brotherhood of Electrical Workers, IRONCLAD Marketing, ND Building Trades Unions, ND Ethanol Council, North Central States Regional Council of Carpenters, North Dakota Farm Bureau, Pioneer Seeds a brand of Corteva, Agriscience, Lynnes Welding Training, Inc., ProSeed, RDO Equipment, Wilbur-Ellis Company, Zacharias Family

# NORTH DAKOTA FARM BUSINESS MANAGEMENT EDUCATION

## 2018 ANNUAL REPORT

<u>School</u>	<u>Instructor</u>
Bismarck State College .....	Kyle Olson
Bismarck State College - Dickinson	Levi Helmuth
Dakota College at Bottineau .....	Rodney Armstrong
Dakota College at Bottineau - Minot.....	Lynsey Aberle
Dakota College at Bottineau - Rugby .....	Sheila Braaten
Fargo (NDSCS).....	Ron Smithberg
Glen Ullin High School .....	Ron Egli
Jamestown (NDSCS).....	Virgil Dagman
Lake Region State College - Devils Lake.....	Jason Fewell Darren Wilcox
Lake Region State College - Langdon .....	Jeremiah Halley
Lake Region State College - Carrington.....	Joel Lemer Steve Metzger
Oakes (SRCTC).....	Kacey Holm
Wahpeton (NDSCS).....	Kara Wulfekuhle

This report was made possible by the farm families who cooperated with their farm management instructors in getting the records for 2018 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.



2018 State Report  
North Dakota Farm Business Management Education

TABLE OF CONTENTS

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
Canola on Share Rent .....	30
Corn on Owned Land.....	31
Corn on Cash Rent .....	32
Corn on Share Rent.....	33
Corn Silage on Owned Land .....	34
Corn Silage on Cash Rent .....	35
CRP on Owned Land .....	36
Flax on Owned Land .....	37
Flax on Cash Rent .....	38
Hay, Alfalfa on Owned Land .....	39
Hay, Alfalfa on Cash Rent.....	40
Hay, Grass on Owned Land.....	41
Hay, Grass on Cash Rent .....	42
Hay, Mixed Alfalfa/Grass on Owned Land .....	43
Hay, Mixed Alfalfa/Grass on Cash Rent .....	44
Hay, Small Grain on Owned Land .....	45
Hay, Small Grain on Cash Rent.....	46
Oats on Cash Rent .....	47
Pasture on Owned Land .....	48
Pasture on Cash Rent .....	49
Peas, Field on Owned Land.....	50

Peas, Field on Cash Rent .....	51
Prevented Planting on Owned Land .....	52
Soybeans on Owned Land .....	53
Soybeans on Cash Rent .....	54
Soybeans on Share Rent .....	55
Soybeans, Food on Cash Rent.....	56
Sugar Beets on Owned Land.....	57
Sugar Beets on Cash Rent .....	58
Sunflowers on Owned Land.....	59
Sunflowers on Cash Rent .....	60
Wheat, Durum on Owned Land .....	61
Wheat, Durum on Cash Rent.....	62
Wheat, Spring on Owned Land .....	63
Wheat, Spring on Cash Rent .....	64
Wheat, Spring on Share Rent .....	65
Explanatory Notes for Livestock Tables .....	66
Beef Cow-Calf – Average Per Cwt. Produced .....	67
Beef Cow-Calf – Average Per Cow .....	68
Beef Cow-Calf Whole Herd w/backgrounding – Average Per Cwt. Produced .....	69
Beef Cow-Calf Whole Herd w/backgrounding – Average Per Cow .....	70
Beef Replacement Heifers – Average Per Head .....	71
Beef Replacement Heifers – Average Per Head Sold/Trans .....	72
Beef, Background Beef – Average Per Cwt Produced .....	73
Beef, Background Beef – Average Per Head .....	74
Figure 1. Gross Cash Income per Farm .....	75
Figure 2. Net Farm Income (Accrual) per Farm .....	75
Figure 3. Financial Efficiency Measures .....	76
Figure 4. Profitability Measures per Farm .....	76
Figure 5. Assets and Liabilities per Farm, 2018 .....	77
Figure 6. Total Farm Assets and Liabilities .....	77
Figure 7. Household and Personal Expenses .....	78
Figure 8. Crop Acreage per Farm .....	78
Figure 9. Spring Wheat Costs per Acre .....	79
Figure 10. Average Net Return per Beef Cow .....	79

## 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 2018 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 30th 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 income statement is a table which lists cash farm income. There are several sources of cash farm income. Cash sales of crops are listed first followed by cash sales of livestock.

Government payments are categorized. "Crop government payments" are Agricultural Risk Coverage (ARC) and Price Loss Coverage (PLC) payments. "LDP payments" are loan deficiency payments that may be received on production when local prices are below the county loan rate for the crop. "Livestock government payments" include dairy MPP payments and other livestock related payments. "CRP payments" are funds received for land enrolled in the Conservation Reserve Program. "Other government payments" refers to all other government payments such as disaster payments, EQIP, CSP, and Market Facilitation Payments (MFP).

Lastly, cash income is categorized by sources such as custom work, cash patronage dividends, crop and property insurance indemnities, sale of resale items, and other.

The second section of the income statement lists cash expenses. "Hired labor" includes only labor which was hired and paid. "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 operators 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 operators labor and management that is used in the calculation of several financial performance measures. A value of \$25,000 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 Program**  
**State Report, 2018**  
**(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	421	84	84	85
<b>Cash Farm Income</b>				
Barley	15,945	9,297	11,162	39,409
Beans, Black Turtle	836	424	2,723	834
Beans, Garbonzo	930	1,196	-	49
Beans, Navy	2,348	1,516	-	7,089
Beans, Pinto	21,692	21,634	22,109	40,519
Canola	24,649	22,608	19,370	37,351
Corn	155,775	72,321	123,868	338,715
Corn Silage	33	155	-	-
Hay, Alfalfa	549	529	-	145
Hay, Mixed	418	735	327	402
Hay, Small Grain	186	-	-	35
Lentils	185	-	-	917
Oats	586	-	831	650
Peas, Field	5,193	5,814	4,436	10,843
Potatoes	1,454	7,228	-	-
Rye	235	100	-	460
Soybeans	181,856	107,439	146,117	394,601
Sugar Beets	21,180	11,014	12,016	50,806
Sunflowers	12,560	5,071	2,862	21,560
Sunflowers, Confectionary	862	-	4,267	-
Wheat, Durum	6,956	4,443	1,454	19,775
Wheat, Spring	103,686	86,910	87,147	181,999
Wheat, Winter	1,342	-	152	1,574
Rented Out	132	17	45	319
Soybeans, Natto	663	-	935	-
Peas, Organic	118	-	-	-
Other Crops	2,167	1,696	-	730
Miscellaneous crop income	6,625	5,994	1,738	7,122
Beef Bulls	882	1,908	-	1,122
Beef Cow-Calf, Beef Calves	26,366	28,410	33,105	18,336
Beef Replacement Heifers	1,760	2,478	734	2,075
Beef Backgrounding	10,355	15,878	6,813	8,659
Beef Finishing	6,856	17,793	2,709	7,593
Beef Finish Yearlings	636	40	-	335
Beef Stockers	586	-	-	2,903
Dairy, Milk	18,589	52,567	40,601	-
Dairy, Dairy Calves	151	267	492	-
Dairy Heifers (for sale)	311	1,061	500	-
Sheep, Market Lamb Prod, Mkt Lambs	76	117	-	-
Bison Cow-Calf, Bison Calves	300	-	-	-
Dairy Backgrounding	74	369	-	-
Cull breeding livestock	5,488	6,561	4,800	3,911
Misc. livestock income	271	267	153	16
Crop government payments	23,347	17,734	18,523	46,221
CRP payments	1,119	1,119	437	1,623
Other government payments	35,734	25,106	35,269	57,246
Custom work income	18,974	47,752	11,437	20,171
Patronage dividends, cash	4,588	3,321	3,890	7,520
Crop insurance income	27,652	25,338	25,320	50,870
Property insurance income	3,350	2,933	1,460	10,008
Sale of resale items	97	-	-	483
Livestock insurance inc	56	76	192	-
Other farm income	15,368	12,944	12,036	24,848
<b>Gross Cash Farm Income</b>	<b>772,147</b>	<b>630,177</b>	<b>640,028</b>	<b>1,419,845</b>

**Farm Income Statement (continued)**  
**North Dakota Farm Business Management Education Program**  
**State Report, 2018**  
**(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	421	84	84	85
<b>Cash Farm Expense</b>				
Seed and plants	87,814	66,267	71,761	164,503
Fertilizer	84,649	61,287	70,666	156,628
Crop chemicals	59,999	47,328	49,800	104,681
Crop insurance	28,758	22,512	22,826	55,196
Drying expense	3,330	1,041	1,977	7,711
Storage	974	213	1,026	2,090
Irrigation energy	262	12	363	172
Crop miscellaneous	1,389	2,696	787	1,112
Consultants	1,989	2,193	1,533	3,959
Feeder livestock purchase	10,472	27,621	3,305	10,942
Purchased feed	18,851	53,884	18,361	7,855
Breeding fees	437	866	630	204
Veterinary	2,683	4,185	3,923	1,704
Supplies	2,031	4,631	3,477	1,000
Livestock insurance	27	29	104	-
Livestock leases	53	106	7	97
Grazing fees	28	105	-	-
Interest	36,540	41,423	35,805	50,678
Fuel & oil	34,583	33,371	29,128	55,690
Repairs	57,067	57,300	46,730	86,464
Custom hire	15,510	14,648	13,984	20,074
Hired labor	29,595	40,840	26,533	48,435
Land rent	111,020	78,959	90,785	214,007
Stock/quota lease	807	646	337	2,550
Machinery leases	11,867	14,249	7,822	21,452
Building leases	1,384	2,328	374	2,557
Real estate taxes	4,758	3,002	3,551	7,692
Farm insurance	11,637	12,373	9,769	18,556
Utilities	9,044	10,104	8,188	13,305
Hauling and trucking	560	-	2,805	-
Marketing	1,684	3,192	1,448	2,214
Dues & professional fees	3,756	3,934	2,322	7,973
Purchase of resale items	3,153	1,946	2,259	4,911
Miscellaneous	9,134	11,220	8,056	13,318
Total cash expense	645,845	624,506	540,440	1,087,730
Net cash farm income	126,303	5,671	99,588	332,116
<b>Inventory Changes</b>				
Prepays and supplies	307	-4,433	-1,870	6,344
Accounts receivable	17,520	2,007	12,653	57,848
Hedging accounts	3,360	-653	2,578	14,902
Other current assets	946	4,285	689	-777
Crops and feed	31,172	-3,326	21,868	70,525
Market livestock	8,883	27,016	2,234	10,728
Breeding livestock	-3,361	-8,188	-2,149	-2,600
Other assets	474	-3,460	3,169	332
Accounts payable	-2,864	-1,266	-7,989	-2,003
Accrued interest	-3,181	-4,988	-1,541	-2,942
Total inventory change	53,257	6,994	29,642	152,356
Net operating profit	179,560	12,664	129,229	484,472
<b>Depreciation</b>				
Machinery and equipment	-52,996	-41,703	-40,570	-103,520
Titled vehicles	-5,740	-5,759	-4,722	-7,766
Buildings and improvements	-5,904	-5,598	-4,447	-12,830
Total depreciation	-64,640	-53,060	-49,738	-124,117
Net farm income from operations	114,920	-40,396	79,491	360,355
Gain or loss on capital sales	1,306	-2,305	1,436	5,283
Net farm income	116,227	-42,700	80,927	365,638

**Inventory Changes**  
**North Dakota Farm Business Management Education Program**  
**State Report, 2018**  
**(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	421	84	84	85
Net cash farm income	126,303	5,671	99,588	332,116
<b>Crops and Feed</b>				
Ending inventory	471,688	288,848	340,761	1,064,251
Beginning inventory	440,515	292,175	318,893	993,726
Inventory change	31,172	-3,326	21,868	70,525
<b>Market Livestock</b>				
Ending inventory	45,360	78,342	35,386	37,141
Beginning inventory	36,476	51,326	33,152	26,413
Inventory change	8,883	27,016	2,234	10,728
<b>Accts Receivable</b>				
Ending inventory	52,257	26,159	41,239	124,887
Beginning inventory	34,737	24,152	28,586	67,039
Inventory change	17,520	2,007	12,653	57,848
<b>Prepaid Expenses and Supplies</b>				
Ending inventory	53,869	19,532	31,513	139,858
Beginning inventory	53,562	23,965	33,383	133,514
Inventory change	307	-4,433	-1,870	6,344
<b>Hedging Activities</b>				
Ending inventory	5,496	674	3,351	16,737
Withdrawals	5,592	4,564	2,316	18,475
Beginning inventory	4,252	3,068	1,082	10,117
Deposits	3,476	2,824	2,006	10,193
Gain or loss	3,360	-653	2,578	14,902
<b>Other Current Assets</b>				
Ending inventory	3,209	7,168	3,736	2,882
Beginning inventory	2,263	2,883	3,046	3,659
Inventory change	946	4,285	689	-777
<b>Breeding Livestock</b>				
Ending inventory	75,493	99,268	89,043	52,751
Capital sales	857	1,264	820	-
Beginning inventory	70,629	97,303	84,954	48,048
Capital purchases	9,082	11,417	7,058	7,304
Depreciation, capital adjust	-3,361	-8,188	-2,149	-2,600
<b>Other Capital Assets</b>				
Ending inventory	115,304	71,658	72,756	271,894
Capital sales	875	227	344	2,180
Beginning inventory	108,228	68,679	63,317	253,872
Capital purchases	7,476	6,665	6,615	19,870
Depreciation, capital adjust	474	-3,460	3,169	332
<b>Accounts Payable</b>				
Beginning inventory	24,366	30,770	14,753	37,010
Ending inventory	27,230	32,036	22,742	39,013
Inventory change	-2,864	-1,266	-7,989	-2,003
<b>Accrued Interest</b>				
Beginning inventory	15,675	19,129	13,853	22,450
Ending inventory	18,856	24,117	15,394	25,392
Inventory change	-3,181	-4,988	-1,541	-2,942
Total inventory change	53,257	6,994	29,642	152,356
Net operating profit	179,560	12,664	129,229	484,472

**Depreciation**  
**North Dakota Farm Business Management Education Program**  
**State Report, 2018**  
**(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	421	84	84	85
Net operating profit	179,560	12,664	129,229	484,472
<b>Machinery and Equipment</b>				
Ending inventory	583,987	465,762	436,724	1,085,377
Capital sales	21,847	13,854	10,672	40,249
Beginning inventory	573,044	470,697	428,006	1,028,274
Capital purchases	85,786	50,622	59,959	200,873
Depreciation, capital adjust.	-52,996	-41,703	-40,570	-103,520
<b>Titled Vehicles</b>				
Ending inventory	51,768	56,352	43,914	74,505
Capital sales	1,207	1,133	158	2,293
Beginning inventory	50,355	54,357	42,224	70,329
Capital purchases	8,360	8,887	6,570	14,235
Depreciation, capital adjust.	-5,740	-5,759	-4,722	-7,766
<b>Buildings and Improvements</b>				
Ending inventory	190,417	190,899	154,999	362,944
Capital sales	1,506	160	-	4,101
Beginning inventory	180,153	184,201	145,060	341,703
Capital purchases	17,674	12,456	14,385	38,172
Depreciation, capital adjust.	-5,904	-5,598	-4,447	-12,830
Total depreciation, capital adj.	-64,640	-53,060	-49,738	-124,117
Net farm income from operations	114,920	-40,396	79,491	360,355
Gain or loss on capital sales	1,306	-2,305	1,436	5,283
Net farm income	116,227	-42,700	80,927	365,638

---

**Profitability Measures**  
**North Dakota Farm Business Management Education Program**  
**State Report, 2018**  
**(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	421	84	84	85
<b>Profitability (assets valued at cost)</b>				
Net farm income from operations	114,920	-40,396	79,491	360,355
Rate of return on assets	4.5 %	-2.5 %	3.9 %	8.1 %
Rate of return on equity	4.6 %	-12.6 %	3.4 %	10.1 %
Operating profit margin	12.2 %	-7.3 %	10.3 %	20.6 %
Asset turnover rate	37.2 %	34.7 %	38.0 %	39.1 %
Farm interest expense	39,721	46,410	37,346	53,620
Value of operator lbr and mgmt.	57,157	47,328	49,279	95,005
Return on farm assets	97,484	-41,314	67,557	318,970
Average farm assets	2,149,473	1,626,914	1,728,328	3,954,265
Return on farm equity	57,763	-87,724	30,211	265,350
Average farm equity	1,256,013	697,898	890,943	2,625,166
Value of farm production	798,586	563,804	657,176	1,547,762

**Liquidity & Repayment Capacity Measures**  
**North Dakota Farm Business Management Education Program**  
**State Report, 2018**  
**(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	421	84	84	85
<b>Liquidity</b>				
Current ratio	1.62	0.98	1.49	2.08
Working capital	217,184	-7,061	140,733	602,957
Working capital to gross inc	30.8 %	-1.3 %	25.2 %	44.0 %
Current assets	564,869	382,334	427,626	1,162,797
Current liabilities	347,685	389,395	286,893	559,840
Gross revenues (accrual)	706,137	542,146	558,653	1,371,339
<b>Repayment capacity</b>				
Net farm income from operations	114,920	-40,396	79,491	360,355
Depreciation	64,640	53,060	49,738	124,117
Personal income	39,279	40,803	45,746	32,956
Family living/owner withdrawals	-66,705	-58,667	-65,252	-92,815
Cash discrepancy	84	313	2	-8
Payments on personal debt	-4,349	-5,696	-4,297	-4,400
Income taxes paid	-14,666	-3,919	-10,041	-29,551
Interest on term debt	21,985	27,999	15,619	29,086
Capital debt repayment capacity	155,188	13,497	111,007	419,739
Scheduled term debt payments	-81,685	-87,071	-73,574	-122,009
Capital debt repayment margin	73,503	-73,574	37,433	297,729
Cash replacement allowance	-35,098	-29,076	-22,153	-64,770
Replacement margin	38,406	-102,650	15,279	232,959
Term debt coverage ratio	1.90	0.16	1.51	3.44
Replacement coverage ratio	1.33	0.12	1.16	2.25

**Balance Sheet at Cost Values**  
**North Dakota Farm Business Management Education Program**  
**State Report, 2018**  
**(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	382	76	81	67
<b>Assets</b>				
<b>Current Farm Assets</b>				
Cash and checking balance	49,959	28,135	46,224	62,322
Prepaid expenses & supplies	41,083	13,447	23,223	100,614
Growing crops	379	782	20	735
Accounts receivable	39,129	19,799	37,000	79,595
Hedging accounts	4,021	-203	1,992	14,108
Crops held for sale or feed	382,144	230,516	281,527	871,792
Market livestock held for sale	46,454	84,194	36,687	32,791
Other current assets	1,698	5,663	952	840
Total current farm assets	564,869	382,334	427,626	1,162,797
<b>Intermediate Farm Assets</b>				
Breeding livestock	67,050	90,736	64,408	34,423
Machinery and equipment	494,586	369,944	379,105	904,321
Titled vehicles	47,543	51,610	36,790	67,695
Other intermediate assets	46,531	30,329	41,366	101,646
Total intermediate farm assets	655,710	542,619	521,669	1,108,085
<b>Long Term Farm Assets</b>				
Farm land	504,957	276,645	448,465	903,911
Buildings and improvements	149,383	152,828	95,271	301,006
Other long-term assets	41,392	24,006	21,557	99,770
Total long-term farm assets	695,731	453,479	565,293	1,304,687
Total Farm Assets	1,916,310	1,378,432	1,514,587	3,575,568
Total Nonfarm Assets	306,538	250,979	262,054	455,205
Total Assets	2,222,848	1,629,411	1,776,641	4,030,773
<b>Liabilities</b>				
<b>Current Farm Liabilities</b>				
Accrued interest	17,534	24,528	12,491	24,904
Accounts payable	22,564	22,773	17,568	34,361
Current notes	252,699	288,570	207,978	417,682
Principal due on term debt	54,888	53,523	48,856	82,893
Total current farm liabilities	347,685	389,395	286,893	559,840
Total intermediate farm liabs	169,599	192,216	144,282	241,492
Total long term farm liabilities	327,735	358,622	300,409	503,604
Total farm liabilities	845,018	940,233	731,584	1,304,936
Total nonfarm liabilities	64,779	72,674	71,197	76,708
Total liabilities	909,797	1,012,907	802,781	1,381,644
Net worth (farm and nonfarm)	1,313,050	616,505	973,860	2,649,129
Net worth change	75,923	-43,548	57,612	254,146
Percent net worth change	6 %	-7 %	6 %	11 %
<b>Ratio Analysis</b>				
Current farm liabilities / assets	62 %	102 %	67 %	48 %
Intermediate farm liab. / assets	26 %	35 %	28 %	22 %
Long term farm liab. / assets	47 %	79 %	53 %	39 %
Total debt to asset ratio	41 %	62 %	45 %	34 %

**Statement Of Cash Flows**  
**North Dakota Farm Business Management Education Program**  
**State Report, 2018**  
**(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	421	84	84	85
Beginning cash (farm & nonfarm)	58,126	37,965	52,308	77,714
<b>Cash Provided By Operating Activities</b>				
Gross cash farm income	772,147	630,177	640,028	1,419,845
Total cash farm expense	-645,845	-624,506	-540,440	-1,087,730
Net cash from hedging transactions	2,116	1,740	309	8,282
Cash provided by operating	128,419	7,411	99,897	340,398
<b>Cash Provided By Investing Activities</b>				
Sale of breeding livestock	986	1,264	1,478	-
Sale of machinery & equipment	22,049	11,885	11,345	41,644
Sale of titled vehicles	1,117	888	169	2,057
Sale of farm land	4,323	6,667	7,296	6,706
Sale of farm buildings	1,655	160	-	4,281
Sale of other farm assets	1,080	249	437	3,060
Sale of nonfarm assets	5,183	2,508	971	10,451
Purchase of breeding livestock	-9,082	-11,417	-7,058	-7,304
Purchase of machinery & equip.	-85,786	-50,622	-59,959	-200,873
Purchase of titled vehicles	-8,360	-8,887	-6,570	-14,235
Purchase of farm land	-45,585	-18,424	-70,522	-71,483
Purchase of farm buildings	-17,674	-12,456	-14,385	-38,172
Purchase of other farm assets	-7,476	-6,665	-6,615	-19,870
Purchase of nonfarm assets	-21,977	-12,014	-32,866	-30,520
Cash provided by investing	-159,547	-96,864	-176,279	-314,257
<b>Cash Provided By Financing Activities</b>				
Money borrowed	620,596	584,311	599,786	1,088,918
Principal payments	-544,074	-481,018	-489,647	-1,003,882
Personal income	39,279	40,803	45,746	32,956
Family living/owner withdrawals	-66,517	-58,667	-64,307	-92,815
Income and social security tax	-13,050	-4,879	-10,216	-26,955
Capital contributions	318	1,512	-	-
Capital distributions	-3,280	-2,008	-1,657	-9,481
Dividends paid	-188	-	-944	-
Cash gifts and inheritances	10,102	17,859	7,231	5,068
Gifts given	-620	-393	-59	-2,144
Other cash flows	-	-	-	-
Cash provided by financing	42,566	97,522	85,933	-8,335
Net change in cash balance	11,438	8,068	9,551	17,805
Ending cash (farm & nonfarm)	69,648	46,346	61,861	95,511
Discrepancy	-84	-313	-2	8

---

**Financial Standards Measures**  
**North Dakota Farm Business Management Education Program**  
**State Report, 2018**  
**(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	421	84	84	85
<b>Liquidity</b>				
Current ratio	1.62	0.98	1.49	2.08
Working capital	217,184	-7,061	140,733	602,957
Working capital to gross inc	30.8 %	-1.3 %	25.2 %	44.0 %
<b>Solvency (cost)</b>				
Farm debt to asset ratio	44 %	68 %	48 %	36 %
Farm equity to asset ratio	56 %	32 %	52 %	64 %
Farm debt to equity ratio	0.79	2.15	0.93	0.57
<b>Profitability (cost)</b>				
Rate of return on farm assets	4.5 %	-2.5 %	3.9 %	8.1 %
Rate of return on farm equity	4.6 %	-12.6 %	3.4 %	10.1 %
Operating profit margin	12.2 %	-7.3 %	10.3 %	20.6 %
Net farm income	116,227	-42,700	80,927	365,638
EBITDA	219,281	59,074	166,575	538,092
<b>Repayment Capacity</b>				
Capital debt repayment capacity	155,188	13,497	111,007	419,739
Capital debt repayment margin	73,503	-73,574	37,433	297,729
Replacement margin	38,406	-102,650	15,279	232,959
Term debt coverage ratio	1.90	0.16	1.51	3.44
Replacement coverage ratio	1.33	0.12	1.16	2.25
<b>Efficiency</b>				
Asset turnover rate (cost)	37.2 %	34.7 %	38.0 %	39.1 %
Operating expense ratio	73.6 %	90.9 %	75.5 %	65.8 %
Depreciation expense ratio	7.8 %	8.2 %	7.3 %	7.9 %
Interest expense ratio	4.8 %	7.2 %	5.5 %	3.4 %
Net farm income ratio	14.0 %	-6.6 %	11.9 %	23.3 %

---

**Crop Production and Marketing Summary**  
**North Dakota Farm Business Management Education Program**  
**State Report, 2018**  
**(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	421	84	84	85
<b>Acreage Summary</b>				
Total acres owned	654	475	578	956
Total crop acres	1,972	1,561	1,630	3,494
Crop acres owned	416	304	345	651
Crop acres cash rented	1,462	1,213	1,215	2,681
Crop acres share rented	94	43	69	163
Total pasture acres	389	489	328	270
Percent crop acres owned	21 %	19 %	21 %	19 %
Mach invest/crop acre cost	318	330	292	323
<b>Average Price Received (Cash Sales Only)</b>				
Soybeans per bushel	8.78	8.76	8.54	8.92
Wheat, Spring per bushel	5.53	5.76	5.39	5.64
Corn per bushel	3.11	3.15	3.13	3.11
Canola per cwt	16.85	16.72	16.36	16.82
Barley per bushel	4.16	3.80	4.26	4.29
Beans, Pinto per cwt	22.33	23.02	22.15	22.60
Sunflowers per cwt	17.95	17.76	17.59	18.24
Wheat, Durum per bushel	5.86	5.10	-	6.28
Peas, Field per bushel	6.60	5.80	-	6.64
Flax per bushel	9.57	-	-	9.40
Hay per ton	65.82	-	-	-
Wheat, Winter per bushel	5.08	-	-	-
Oats per bushel	3.04	-	-	-
Hay, Mixed Alfalfa/Grass per ton	76.07	-	-	-
Beans, Navy per cwt	24.31	-	-	-
Rye per bushel	4.83	-	-	-
Beans, Black Turtle per cwt	24.87	-	-	-
Hay, Alfalfa per ton	116.08	-	-	-
<b>Average Yield Per Acre</b>				
Soybeans (bushel)	36.49	32.87	37.37	37.18
Wheat, Spring (bushel)	55.89	50.42	53.05	59.84
Corn (bushel)	154.00	102.23	155.12	163.62
Canola (cwt)	19.35	16.24	15.77	20.47
Hay, Mixed Alfalfa/Grass (ton)	1.20	0.934	2.35	1.09
Barley (bushel)	75.62	60.79	68.91	84.17
Hay, Grass (ton)	1.15	1.17	1.00	1.59
Hay, Small Grain (ton)	1.95	1.38	-	2.61
Sugar Beets (ton)	24.02	-	27.70	28.11
Hay, Alfalfa (ton)	2.25	1.80	3.50	1.82
Wheat, Durum (bushel)	52.61	59.09	-	48.39
Sunflowers (cwt)	21.20	-	-	23.21
Beans, Pinto (cwt)	14.70	-	10.96	17.10
Corn Silage (ton)	18.10	19.09	-	16.18
Peas, Field (bushel)	40.70	-	36.29	46.20
Oats (bushel)	68.60	-	-	51.52
Flax (bushel)	23.31	-	-	24.45
Hay, Summer Annual Grass (ton)	1.99	-	-	2.92
Beans, Garbonzo (cwt)	22.78	-	-	21.87
Beans, Navy (cwt)	18.99	-	-	-

**Household and Personal Expenses**  
**North Dakota Farm Business Management Education Program**  
**State Report, 2018**  
**(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	125	27	26	18
Average family size	2.9	2.9	3.0	3.4
<b>Family Living Expenses</b>				
Food and meals expense	8,542	8,834	8,274	10,342
Medical care	4,796	4,040	4,733	6,858
Health insurance	8,581	7,678	6,095	12,829
Cash donations	2,112	1,167	2,245	3,291
Household supplies	6,155	6,209	6,598	8,699
Clothing	1,958	2,068	1,686	3,103
Personal care	5,028	4,062	4,045	8,445
Child / Dependent care	875	807	727	551
Alimony and child support	4	17	-	-
Gifts	2,193	1,160	2,197	2,510
Education	852	1,370	1,310	938
Recreation	3,955	4,203	3,440	4,299
Utilities (household share)	4,011	3,488	3,816	5,103
Personal vehicle operating exp	3,644	4,237	3,472	3,243
Household real estate taxes	315	381	232	240
Dwelling rent	175	181	585	-
Household repairs	2,142	2,989	2,667	3,447
Personal interest	1,515	2,173	1,733	1,084
Disability / Long term care ins	408	35	239	543
Life insurance payments	2,667	3,264	932	7,030
Personal property insurance	374	163	329	943
Miscellaneous	3,715	6,352	3,043	4,131
Total cash family living expense	64,019	64,878	58,398	87,630
Family living from the farm	149	461	-	130
Total family living	64,168	65,339	58,398	87,760
<b>Other Nonfarm Expenditures</b>				
Income taxes	13,835	4,576	14,043	30,871
Furnishing & appliance purchases	40	37	-	-
Nonfarm vehicle purchases	3,314	2,776	1,931	7,706
Nonfarm real estate purchases	17,110	323	74,340	106
Other nonfarm capital purchases	41	44	-1,385	-
Nonfarm savings & investments	5,134	10,295	2,691	5,254
Total other nonfarm expenditures	39,474	18,051	91,619	43,937
Total cash family living investment & nonfarm capital purch	103,493	82,929	150,017	131,567

---

**Operator and Labor Information**  
**North Dakota Farm Business Management Education Program**  
**State Report, 2018**  
**(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	421	84	84	85
<b>Operator Information</b>				
Average number of operators	1.1	1.1	1.1	1.2
Average age of operators	46.0	47.1	43.7	46.8
Average number of years farming	21.3	21.1	18.5	23.8
<b>Results Per Operator</b>				
Working capital	258,657	36,871	145,547	656,827
Total assets (cost)	2,325,793	1,786,566	1,931,186	3,805,491
Total liabilities	913,183	982,589	898,946	1,202,175
Net worth (cost)	1,412,610	803,977	1,032,239	2,603,316
Gross farm income	757,310	597,466	635,695	1,296,845
Total farm expense	652,588	634,755	561,503	999,464
Net farm income from operations	104,722	-37,289	74,191	297,380
Net nonfarm income	35,794	37,664	42,696	27,197
Family living & tax withdrawals	74,073	57,483	70,271	100,989
Total acres owned	596.4	438.6	539.9	789.1
Total crop acres	1,797.3	1,440.8	1,521.0	2,883.6
Crop acres owned	378.9	280.9	322.0	537.2
Crop acres cash rented	1,332.5	1,119.8	1,134.3	2,212.3
Crop acres share rented	85.9	40.1	64.7	134.1
Total pasture acres	354.3	451.6	305.8	222.6
<b>Labor Analysis</b>				
Number of farms	421	84	84	85
Total unpaid labor hours	2,018	1,861	1,832	2,607
Total hired labor hours	1,060	1,614	908	1,761
Total labor hours per farm	3,078	3,475	2,740	4,368
Unpaid hours per operator	1,839	1,718	1,710	2,152

---

**Nonfarm Summary**  
**North Dakota Farm Business Management Education Program**  
**State Report, 2018**  
**(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	421	84	84	85
<b>Nonfarm Income</b>				
Personal wages & salary	22,957	26,513	27,256	18,075
Net nonfarm business income	4,070	3,322	7,315	4,863
Personal rental income	2,427	2,550	-	2,257
Personal interest income	300	22	77	1,058
Personal cash dividends	104	115	135	147
Tax refunds	939	1,448	830	863
Other nonfarm income	8,482	6,832	10,133	5,693
Total nonfarm income	39,279	40,803	45,746	32,956
Gifts and inheritances	10,102	17,859	7,231	5,068

**Financial Summary**  
**North Dakota Farm Business Management Education Program**  
**State Report, 2018**  
**(Farms Sorted By Gross Farm Income)**

	<u>Avg. Of All Farms</u>	<u>Less than 100,000</u>	<u>100,001 - 250,000</u>	<u>250,001 - 500,000</u>	<u>500,001 - 1,000,000</u>	<u>1,000,001- 2,000,000</u>	<u>Over 2,000,000</u>
Number of farms	421	36	58	94	140	65	28
<b>Income Statement</b>							
Gross cash farm income	772,147	56,307	175,878	370,839	742,344	1,364,604	3,048,563
Total cash farm expense	645,845	62,727	162,433	307,277	610,902	1,127,705	2,589,647
Net cash farm income	126,303	-6,420	13,445	63,562	131,442	236,898	458,916
Inventory change	53,257	30,961	20,379	42,705	61,292	101,758	32,683
Depreciation	-64,640	-5,621	-12,981	-29,257	-62,655	-120,047	-247,612
Net farm income from operations	114,920	18,920	20,843	77,011	130,079	218,609	243,987
Gain or loss on capital sales	1,306	458	-6	-1,195	2,031	5,221	805
Average net farm income	116,227	19,379	20,837	75,816	132,110	223,830	244,792
Median net farm income	83,182	17,556	21,724	78,016	109,933	163,813	263,018
<b>Profitability (cost)</b>							
Rate of return on assets	4.5 %	2.3 %	1.6 %	4.9 %	5.2 %	5.3 %	2.9 %
Rate of return on equity	4.6 %	1.6 %	-1.8 %	5.4 %	5.6 %	6.0 %	1.8 %
Operating profit margin	12.2 %	10.4 %	4.7 %	14.7 %	14.1 %	13.8 %	7.5 %
Asset turnover rate	37.2 %	22.0 %	33.0 %	33.3 %	37.0 %	38.8 %	39.3 %
<b>Liquidity &amp; Repayment (end of year)</b>							
Current assets	564,869	97,707	141,082	361,341	644,334	1,138,121	1,991,512
Current liabilities	347,685	48,039	93,523	190,634	368,910	744,847	1,538,122
Current ratio	1.62	2.03	1.51	1.90	1.75	1.53	1.29
Working capital	217,184	49,667	47,558	170,707	275,425	393,274	453,390
Change in working capital	28,333	23,158	-382	22,878	46,762	33,123	3,182
Working capital to gross inc	30.8 %	55.6 %	23.8 %	41.6 %	34.6 %	26.9 %	16.8 %
Term debt coverage ratio	1.90	2.75	0.94	2.11	1.93	2.02	1.76
Replacement coverage ratio	1.33	2.26	0.78	1.50	1.33	1.37	1.23
Term debt to EBITDA	2.23	3.17	4.14	2.26	2.10	2.12	2.24
<b>Solvency (end of year at cost)</b>							
Number of sole proprietors	382	36	57	92	132	51	14
Total assets	2,222,848	501,932	723,773	1,568,170	2,548,582	4,312,126	6,371,444
Total liabilities	909,797	256,654	380,366	556,607	957,787	1,825,584	3,277,272
Net worth	1,313,050	245,278	343,408	1,011,564	1,590,796	2,486,543	3,094,171
Net worth change	75,923	45,879	12,875	68,803	93,748	134,243	76,135
Farm debt to asset ratio	44 %	52 %	57 %	40 %	40 %	46 %	54 %
Total debt to asset ratio	41 %	51 %	53 %	35 %	38 %	42 %	51 %
Change in earned net worth %	6 %	23 %	4 %	7 %	6 %	6 %	3 %
<b>Nonfarm Information</b>							
Net nonfarm income	39,279	42,414	45,633	47,152	37,687	29,066	27,328
Farms reporting living expenses	125	8	20	34	49	12	2
Total family living expense	64,168	32,770	47,779	60,793	74,257	74,647	-
<b>Crop Acres</b>							
Total crop acres	1,972	296	603	1,194	2,077	3,431	5,670
Total crop acres owned	416	101	134	290	563	598	670
Total crop acres cash rented	1,462	169	423	802	1,406	2,692	4,918
Total crop acres share rented	94	27	45	102	108	141	82
Machinery value per crop acre	318	165	215	285	321	336	345

**Financial Summary**  
**North Dakota Farm Business Management Education Program**  
**State Report, 2018**  
**(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	421	70	85	77	105	84
<b>Income Statement</b>						
Gross cash farm income	772,147	346,081	715,101	763,511	1,090,186	795,297
Total cash farm expense	645,845	305,178	645,879	650,744	873,184	641,034
Net cash farm income	126,303	40,903	69,222	112,768	217,002	154,263
Inventory change	53,257	46,462	102,620	76,866	8,128	43,740
Depreciation	-64,640	-16,801	-49,793	-56,618	-97,952	-85,241
Net farm income from operations	114,920	70,564	122,048	133,015	127,178	112,761
Gain or loss on capital sales	1,306	1,035	2,513	367	800	1,805
Average net farm income	116,227	71,599	124,561	133,382	127,978	114,566
Median net farm income	83,182	37,852	88,338	91,536	95,391	84,501
<b>Profitability (cost)</b>						
Rate of return on assets	4.5 %	7.7 %	6.4 %	5.8 %	3.7 %	3.1 %
Rate of return on equity	4.6 %	12.9 %	8.7 %	7.0 %	3.0 %	2.7 %
Operating profit margin	12.2 %	14.2 %	13.7 %	14.0 %	10.7 %	10.7 %
Asset turnover rate	37.2 %	54.2 %	46.3 %	41.1 %	34.7 %	28.8 %
<b>Liquidity &amp; Repayment (end of year)</b>						
Current assets	564,869	257,051	565,304	544,922	773,050	609,363
Current liabilities	347,685	157,081	415,901	344,382	494,113	264,443
Current ratio	1.62	1.64	1.36	1.58	1.56	2.30
Working capital	217,184	99,970	149,402	200,540	278,937	344,919
Change in working capital	28,333	16,971	37,486	34,295	32,132	18,157
Working capital to gross inc	30.8 %	26.3 %	18.2 %	28.7 %	30.4 %	55.9 %
Term debt coverage ratio	1.90	2.42	1.94	2.07	1.56	2.11
Replacement coverage ratio	1.33	2.03	1.54	1.51	1.08	1.25
Term debt to EBITDA	2.23	2.15	2.38	2.24	2.50	1.67
<b>Solvency (end of year at cost)</b>						
Number of sole proprietors	382	69	83	66	93	71
Total assets	2,222,848	846,711	1,975,114	2,238,511	3,043,053	2,760,910
Total liabilities	909,797	511,503	1,063,833	990,357	1,256,803	587,386
Net worth	1,313,050	335,208	911,281	1,248,154	1,786,249	2,173,523
Net worth change	75,923	62,479	86,193	106,027	45,263	89,157
Farm debt to asset ratio	44 %	61 %	55 %	48 %	45 %	24 %
Total debt to asset ratio	41 %	60 %	54 %	44 %	41 %	21 %
Change in earned net worth %	6 %	23 %	10 %	9 %	3 %	4 %
<b>Nonfarm Information</b>						
Net nonfarm income	39,279	30,860	36,928	48,372	29,258	52,867
Farms reporting living expenses	125	18	26	13	34	34
Total family living expense	64,168	48,521	63,296	72,865	66,166	67,794
<b>Crop Acres</b>						
Total crop acres	1,972	1,020	1,910	1,942	2,682	1,971
Total crop acres owned	416	82	213	413	601	670
Total crop acres cash rented	1,462	914	1,511	1,470	2,011	1,177
Total crop acres share rented	94	24	185	59	70	124
Machinery value per crop acre	318	161	259	293	338	433

**Financial Summary**  
**North Dakota Farm Business Management Education Program**  
**State Report, 2018**  
**(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	421	289	35	47	46
<b>Income Statement</b>					
Gross cash farm income	772,147	890,492	177,219	475,738	590,064
Total cash farm expense	645,845	729,381	140,409	419,425	561,667
Net cash farm income	126,303	161,111	36,810	56,313	28,397
Inventory change	53,257	59,354	1,662	41,921	86,736
Depreciation	-64,640	-79,605	-14,372	-33,473	-34,535
Net farm income from operations	114,920	140,860	24,100	64,760	80,599
Gain or loss on capital sales	1,306	1,300	-599	-1,266	5,437
Average net farm income	116,227	142,160	23,501	63,495	86,036
Median net farm income	83,182	100,955	11,077	71,790	30,717
<b>Profitability (cost)</b>					
Rate of return on assets	4.5 %	4.7 %	1.8 %	4.1 %	5.4 %
Rate of return on equity	4.6 %	4.9 %	-0.1 %	3.6 %	6.2 %
Operating profit margin	12.2 %	12.4 %	9.6 %	11.9 %	13.9 %
Asset turnover rate	37.2 %	37.9 %	18.6 %	34.5 %	39.1 %
<b>Liquidity &amp; Repayment (end of year)</b>					
Current assets	564,869	666,250	155,078	433,604	448,318
Current liabilities	347,685	386,961	97,687	325,653	348,352
Current ratio	1.62	1.72	1.59	1.33	1.29
Working capital	217,184	279,289	57,391	107,951	99,966
Change in working capital	28,333	35,416	-2,219	22,087	20,597
Working capital to gross inc	30.8 %	34.2 %	36.0 %	20.2 %	14.6 %
Term debt coverage ratio	1.90	2.11	1.12	1.31	1.67
Replacement coverage ratio	1.33	1.40	0.95	1.18	1.30
Term debt to EBITDA	2.23	1.94	4.79	2.94	3.27
<b>Solvency (end of year at cost)</b>					
Number of sole proprietors	382	255	34	46	45
Total assets	2,222,848	2,570,373	898,792	1,696,452	1,829,613
Total liabilities	909,797	974,815	420,621	852,402	983,504
Net worth	1,313,050	1,595,558	478,171	844,050	846,109
Net worth change	75,923	85,285	21,223	60,553	83,831
Farm debt to asset ratio	44 %	41 %	49 %	53 %	60 %
Total debt to asset ratio	41 %	38 %	47 %	50 %	54 %
Change in earned net worth %	6 %	6 %	5 %	8 %	11 %
<b>Nonfarm Information</b>					
Net nonfarm income	39,279	40,144	46,372	29,736	40,083
Farms reporting living expenses	125	78	12	16	19
Total family living expense	64,168	72,693	44,665	50,121	53,313
<b>Crop Acres</b>					
Total crop acres	1,972	2,343	527	1,493	1,213
Total crop acres owned	416	470	224	373	274
Total crop acres cash rented	1,462	1,757	281	1,028	917
Total crop acres share rented	94	116	22	92	22
Machinery value per crop acre	318	331	281	222	279

## 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 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. 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.

Market Facilitation Payments, a 2018 USDA FSA program for commodities directly impacted by retaliatory tariffs, are included under "Other crop income per acre." "Government payments" are ARC and PLC payments which are not associated with specific crop planting.

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 Program**  
**State Report, 2018**  
**(Farms Sorted By Net Return)**

**Barley on Owned Land**

	<u>Avg. Of All Farms</u>
Number of farms	20
Acres	134.10
Yield per acre (bu.)	69.24
Operators share of yield %	100.00
Value per bu.	4.21
Other product return per acre	4.32
Total product return per acre	295.71
Crop insurance per acre	12.18
Other crop income per acre	0.47
Gross return per acre	308.36
<b>Direct Expenses</b>	
Seed and plants	17.53
Fertilizer	49.33
Crop chemicals	34.98
Crop insurance	17.39
Fuel & oil	14.71
Repairs	25.14
Custom hire	5.98
Machinery leases	2.78
Operating interest	6.06
Miscellaneous	1.91
Total direct expenses per acre	175.82
Return over direct exp per acre	132.54
<b>Overhead Expenses</b>	
Hired labor	9.34
Machinery leases	0.24
Building leases	0.98
RE & pers. property taxes	9.39
Farm insurance	5.13
Utilities	4.35
Dues & professional fees	0.90
Interest	25.38
Mach & bldg depreciation	27.48
Miscellaneous	6.13
Total overhead expenses per acre	89.32
Total dir & ovhd expenses per acre	265.15
Net return per acre	43.21
Government payments	20.04
Net return with govt pmts	63.25
Labor & management charge	22.82
Net return over lbr & mgt	40.43
<b>Cost of Production</b>	
Total direct expense per bu.	2.54
Total dir & ovhd exp per bu.	3.83
Less govt & other income	3.29
With labor & management	3.62
Net value per unit	4.21
Machinery cost per acre	77.50
Est. labor hours per acre	1.20

**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education Program**  
**State Report, 2018**  
**(Farms Sorted By Net Return)**

**Barley on Cash Rent**

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	40	8	8	8
Acres	278.58	162.57	229.24	198.18
Yield per acre (bu.)	76.63	60.65	75.18	85.45
Operators share of yield %	100.00	100.00	100.00	100.00
Value per bu.	4.11	3.76	3.90	4.15
Total product return per acre	314.92	228.27	293.12	354.35
Crop insurance per acre	5.46	10.22	8.52	10.82
Other crop income per acre	0.92	-	-	4.15
Gross return per acre	321.29	238.49	301.65	369.32
<b>Direct Expenses</b>				
Seed and plants	16.55	16.28	19.71	15.80
Fertilizer	48.48	50.96	42.17	44.54
Crop chemicals	34.42	35.83	29.06	31.24
Crop insurance	15.52	11.69	11.03	10.03
Fuel & oil	13.55	14.85	12.64	13.65
Repairs	21.61	27.36	27.83	25.59
Custom hire	5.56	2.09	3.54	4.42
Land rent	57.53	65.14	56.58	58.49
Machinery leases	0.12	0.88	-	-
Operating interest	6.13	6.35	1.63	7.59
Miscellaneous	1.33	1.95	2.46	-
Total direct expenses per acre	220.81	233.37	206.66	211.35
Return over direct exp per acre	100.48	5.12	94.99	157.97
<b>Overhead Expenses</b>				
Custom hire	1.15	0.09	0.02	0.37
Hired labor	9.72	8.62	9.11	11.20
Machinery leases	2.44	2.66	4.30	3.64
Building leases	0.44	0.49	0.08	1.45
Farm insurance	4.11	4.61	5.66	4.21
Utilities	3.61	5.16	3.01	2.87
Dues & professional fees	1.26	0.76	4.43	0.70
Interest	2.27	2.69	0.98	3.03
Mach & bldg depreciation	36.01	26.54	33.38	25.97
Miscellaneous	4.75	6.78	4.43	2.67
Total overhead expenses per acre	65.76	58.39	65.41	56.11
Total dir & ovhd expenses per acre	286.57	291.76	272.07	267.45
Net return per acre	34.72	-53.27	29.58	101.86
Government payments	13.88	14.66	19.82	16.90
Net return with govt pmts	48.61	-38.61	49.39	118.76
Labor & management charge	23.75	21.41	22.79	25.75
Net return over lbr & mgt	24.86	-60.02	26.60	93.01
<b>Cost of Production</b>				
Total direct expense per bu.	2.88	3.85	2.75	2.47
Total dir & ovhd exp per bu.	3.74	4.81	3.62	3.13
Less govt & other income	3.48	4.40	3.24	2.76
With labor & management	3.79	4.75	3.54	3.06
Net value per unit	4.11	3.76	3.90	4.15
Machinery cost per acre	80.13	74.57	79.31	74.42
Est. labor hours per acre	1.10	1.06	1.13	1.31

**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education Program**  
**State Report, 2018**  
**(Farms Sorted By Net Return)**

**Beans, Pinto on Owned Land**

	<u>Avg. Of All Farms</u>
Number of farms	8
Acres	143.78
Yield per acre (cwt.)	14.28
Operators share of yield %	100.00
Value per cwt.	21.81
Total product return per acre	311.50
Crop insurance per acre	21.74
Other crop income per acre	3.21
Gross return per acre	336.45
<b>Direct Expenses</b>	
Seed and plants	48.68
Fertilizer	17.84
Crop chemicals	45.29
Crop insurance	16.99
Fuel & oil	14.66
Repairs	20.96
Custom hire	0.85
Machinery leases	1.52
Operating interest	8.16
Miscellaneous	0.83
Total direct expenses per acre	175.78
Return over direct exp per acre	160.68
<b>Overhead Expenses</b>	
Hired labor	10.65
Machinery leases	2.43
Building leases	0.96
RE & pers. property taxes	8.35
Farm insurance	4.80
Utilities	3.22
Dues & professional fees	1.14
Interest	32.11
Mach & bldg depreciation	37.88
Miscellaneous	5.75
Total overhead expenses per acre	107.29
Total dir & ovhd expenses per acre	283.07
Net return per acre	53.39
Government payments	10.69
Net return with govt pmts	64.08
Labor & management charge	25.56
Net return over lbr & mgt	38.52
<b>Cost of Production</b>	
Total direct expense per cwt.	12.31
Total dir & ovhd exp per cwt.	19.82
Less govt & other income	17.33
With labor & management	19.12
Net value per unit	21.81
Machinery cost per acre	78.86
Est. labor hours per acre	1.27

**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education Program**  
**State Report, 2018**  
**(Farms Sorted By Net Return)**

**Beans, Pinto on Cash Rent**

	<u>Avg. Of All Farms</u>
Number of farms	17
Acres	437.98
Yield per acre (cwt.)	14.48
Operators share of yield %	100.00
Value per cwt.	22.02
Total product return per acre	319.00
Crop insurance per acre	44.08
Other crop income per acre	0.60
Gross return per acre	363.68
<b>Direct Expenses</b>	
Seed and plants	55.45
Fertilizer	37.98
Crop chemicals	55.24
Crop insurance	24.11
Fuel & oil	14.57
Repairs	22.01
Custom hire	1.03
Hired labor	2.96
Land rent	61.97
Machinery leases	2.27
Operating interest	8.97
Miscellaneous	0.83
Total direct expenses per acre	287.40
Return over direct exp per acre	76.28
<b>Overhead Expenses</b>	
Hired labor	9.05
Machinery leases	4.86
Building leases	0.69
Farm insurance	5.10
Utilities	4.08
Dues & professional fees	0.56
Interest	2.40
Mach & bldg depreciation	43.98
Miscellaneous	8.96
Total overhead expenses per acre	79.68
Total dir & ovhd expenses per acre	367.07
Net return per acre	-3.39
Government payments	12.29
Net return with govt pmts	8.89
Labor & management charge	27.64
Net return over lbr & mgt	-18.75
<b>Cost of Production</b>	
Total direct expense per cwt.	19.84
Total dir & ovhd exp per cwt.	25.34
Less govt & other income	21.41
With labor & management	23.32
Net value per unit	22.02
Machinery cost per acre	87.40
Est. labor hours per acre	1.16

**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education Program**  
**State Report, 2018**  
**(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	33	6	6	7
Acres	158.91	201.78	167.93	176.09
Yield per acre (cwt.)	18.90	15.80	19.48	22.75
Operators share of yield %	100.00	100.00	100.00	100.00
Value per cwt.	15.89	15.81	15.26	16.17
Other product return per acre	0.48	-	-	-
Total product return per acre	300.87	249.82	297.30	367.93
Crop insurance per acre	6.19	13.92	-	-
Other crop income per acre	0.33	-	-	-
Gross return per acre	307.38	263.74	297.30	367.93
<b>Direct Expenses</b>				
Seed and plants	55.08	52.99	57.73	51.29
Fertilizer	50.40	52.41	43.93	42.89
Crop chemicals	32.67	40.89	23.69	33.61
Crop insurance	15.37	20.50	16.22	11.81
Fuel & oil	14.04	13.91	15.68	11.90
Repairs	19.93	22.28	21.44	15.33
Custom hire	3.50	6.03	6.38	3.37
Hired labor	0.19	0.81	-	-
Machinery leases	0.12	0.52	-	-
Operating interest	3.57	4.35	3.19	3.61
Miscellaneous	1.41	3.94	1.11	1.17
Total direct expenses per acre	196.28	218.63	189.37	175.00
Return over direct exp per acre	111.10	45.11	107.93	192.93
<b>Overhead Expenses</b>				
Custom hire	0.56	0.80	0.02	0.82
Hired labor	6.38	12.95	9.38	3.33
Machinery leases	1.07	1.29	0.10	1.61
Building leases	0.43	-	0.41	1.14
RE & pers. property taxes	7.97	8.89	5.78	10.45
Farm insurance	5.05	6.52	3.84	5.35
Utilities	3.46	4.85	2.41	3.83
Dues & professional fees	0.63	0.62	0.82	0.27
Interest	15.96	22.35	12.01	9.52
Mach & bldg depreciation	27.10	29.89	27.98	23.44
Miscellaneous	2.66	3.80	1.91	2.05
Total overhead expenses per acre	71.27	91.95	64.66	61.81
Total dir & ovhd expenses per acre	267.55	310.58	254.03	236.81
Net return per acre	39.83	-46.84	43.26	131.12
Government payments	21.06	15.28	18.80	26.51
Net return with govt pmts	60.89	-31.56	62.07	157.63
Labor & management charge	23.45	21.04	20.59	29.25
Net return over lbr & mgt	37.44	-52.60	41.48	128.38
<b>Cost of Production</b>				
Total direct expense per cwt.	10.38	13.83	9.72	7.69
Total dir & ovhd exp per cwt.	14.15	19.65	13.04	10.41
Less govt & other income	12.67	17.80	12.07	9.24
With labor & management	13.91	19.14	13.13	10.53
Net value per unit	15.89	15.81	15.26	16.17
Machinery cost per acre	66.04	71.87	70.56	56.22
Est. labor hours per acre	1.28	1.34	1.32	1.25

**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education Program**  
**State Report, 2018**  
**(Farms Sorted By Net Return)**

**Canola 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	49	9	10	10
Acres	425.88	478.09	536.03	290.84
Yield per acre (cwt.)	19.48	16.16	19.47	24.08
Operators share of yield %	100.00	100.00	100.00	100.00
Value per cwt.	15.84	15.06	15.81	16.02
Total product return per acre	308.48	243.36	307.95	385.70
Crop insurance per acre	5.82	6.51	3.95	0.38
Other crop income per acre	1.07	-	3.28	1.65
Gross return per acre	315.37	249.87	315.18	387.72
<b>Direct Expenses</b>				
Seed and plants	55.00	61.16	57.56	53.50
Fertilizer	57.88	56.63	59.08	43.66
Crop chemicals	30.62	30.60	33.79	32.00
Crop insurance	15.65	17.04	13.55	11.42
Fuel & oil	12.98	12.57	13.29	13.24
Repairs	22.97	22.98	23.76	25.63
Custom hire	4.65	8.33	1.37	2.32
Hired labor	0.70	1.44	-	-
Land rent	52.58	52.85	52.37	51.33
Machinery leases	0.22	0.85	-	-
Operating interest	4.82	8.07	3.33	4.38
Miscellaneous	1.56	2.17	1.83	0.02
Total direct expenses per acre	259.64	274.69	259.93	237.49
Return over direct exp per acre	55.73	-24.82	55.25	150.23
<b>Overhead Expenses</b>				
Custom hire	1.56	0.74	0.59	1.15
Hired labor	5.81	5.94	4.88	6.16
Machinery leases	3.18	2.04	6.28	5.27
Building leases	0.70	0.49	1.30	0.13
Farm insurance	4.13	3.72	4.02	3.31
Utilities	2.60	2.52	2.28	2.34
Dues & professional fees	0.66	1.22	0.62	0.24
Interest	3.37	4.05	3.46	2.95
Mach & bldg depreciation	27.01	26.63	24.99	23.31
Miscellaneous	2.88	3.61	2.02	1.90
Total overhead expenses per acre	51.90	50.95	50.43	46.75
Total dir & ovhd expenses per acre	311.55	325.64	310.36	284.24
Net return per acre	3.83	-75.78	4.82	103.49
Government payments	16.82	10.56	20.20	19.76
Net return with govt pmts	20.64	-65.22	25.02	123.25
Labor & management charge	23.51	19.16	25.34	26.09
Net return over lbr & mgt	-2.86	-84.38	-0.32	97.16
<b>Cost of Production</b>				
Total direct expense per cwt.	13.33	17.00	13.35	9.86
Total dir & ovhd exp per cwt.	16.00	20.15	15.94	11.81
Less govt & other income	14.78	19.09	14.53	10.90
With labor & management	15.99	20.28	15.83	11.98
Net value per unit	15.84	15.06	15.81	16.02
Machinery cost per acre	74.32	76.93	72.48	72.52
Est. labor hours per acre	1.13	0.89	1.19	1.27

**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education Program**  
**State Report, 2018**  
**(Farms Sorted By Net Return)**

**Canola on Share Rent**

	<u>Avg. Of All Farms</u>
Number of farms	5
Acres	97.46
Yield per acre (cwt.)	18.34
Operators share of yield %	74.59
Value per cwt.	16.19
Total product return per acre	221.53
Gross return per acre	221.53
<b>Direct Expenses</b>	
Seed and plants	65.48
Fertilizer	43.38
Crop chemicals	28.01
Crop insurance	7.63
Fuel & oil	12.44
Repairs	28.52
Custom hire	2.20
Operating interest	1.61
Miscellaneous	0.55
Total direct expenses per acre	189.80
Return over direct exp per acre	31.72
<b>Overhead Expenses</b>	
Custom hire	1.94
Hired labor	7.01
Machinery leases	5.39
Building leases	0.24
Farm insurance	2.88
Utilities	1.36
Dues & professional fees	0.97
Interest	2.00
Mach & bldg depreciation	19.55
Miscellaneous	1.81
Total overhead expenses per acre	43.14
Total dir & ovhd expenses per acre	232.94
Net return per acre	-11.41
Government payments	19.56
Net return with govt pmts	8.14
Labor & management charge	20.47
Net return over lbr & mgt	-12.33
<b>Cost of Production</b>	
Total direct expense per cwt.	13.87
Total dir & ovhd exp per cwt.	17.02
Less govt & other income	15.60
With labor & management	17.09
Net value per unit	16.19
Machinery cost per acre	70.29
Est. labor hours per acre	1.41

**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education Program**  
**State Report, 2018**  
**(Farms Sorted By Net Return)**

**Corn on Owned Land**

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	81	16	16	17
Acres	223.09	206.33	248.49	221.01
Yield per acre (bu.)	153.19	96.02	163.55	202.18
Operators share of yield %	100.00	100.00	100.00	100.00
Value per bu.	3.30	3.24	3.29	3.36
Total product return per acre	506.04	311.54	537.45	679.87
Hedging gains/losses per acre	2.06	-	8.93	-
Crop insurance per acre	11.40	43.27	0.45	12.32
Other crop income per acre	2.36	2.70	1.94	1.84
Gross return per acre	521.85	357.50	548.76	694.03
<b>Direct Expenses</b>				
Seed and plants	88.56	83.25	85.67	92.27
Fertilizer	102.29	87.92	108.74	109.09
Crop chemicals	26.07	26.97	29.52	26.14
Crop insurance	19.78	16.02	18.94	24.88
Drying expense	12.19	3.62	13.09	22.16
Fuel & oil	21.76	19.69	19.26	24.79
Repairs	39.17	38.73	44.94	33.81
Custom hire	4.91	5.74	5.87	4.92
Hired labor	0.66	0.98	1.42	0.61
Machinery leases	1.45	0.72	5.13	-
Operating interest	11.22	10.66	6.43	14.06
Miscellaneous	1.93	1.42	3.22	0.45
Total direct expenses per acre	330.00	295.72	342.22	353.18
Return over direct exp per acre	191.86	61.78	206.54	340.85
<b>Overhead Expenses</b>				
Custom hire	0.88	0.55	0.12	1.78
Hired labor	17.98	21.26	11.13	21.59
Machinery leases	4.15	4.60	2.97	2.25
Building leases	0.41	-	0.75	0.45
RE & pers. property taxes	14.26	13.63	12.98	19.93
Farm insurance	6.68	5.28	8.22	6.92
Utilities	5.28	4.97	5.82	7.10
Dues & professional fees	2.39	0.87	1.39	3.68
Interest	43.83	67.46	51.57	23.33
Mach & bldg depreciation	49.40	46.69	52.57	45.49
Miscellaneous	4.20	6.05	4.32	2.03
Total overhead expenses per acre	149.46	171.36	151.82	134.55
Total dir & ovhd expenses per acre	479.46	467.09	494.05	487.72
Net return per acre	42.39	-109.59	54.71	206.30
Government payments	10.30	12.94	17.07	0.34
Net return with govt pmts	52.69	-96.64	71.79	206.64
Labor & management charge	39.17	34.04	39.35	44.26
Net return over lbr & mgt	13.52	-130.68	32.44	162.37
<b>Cost of Production</b>				
Total direct expense per bu.	2.15	3.08	2.09	1.75
Total dir & ovhd exp per bu.	3.13	4.86	3.02	2.41
Less govt & other income	2.96	4.25	2.85	2.34
With labor & management	3.22	4.61	3.09	2.56
Net value per unit	3.32	3.24	3.34	3.36
Machinery cost per acre	121.06	117.26	126.41	112.99
Est. labor hours per acre	1.85	1.98	1.95	1.92

**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education Program**  
**State Report, 2018**  
**(Farms Sorted By Net Return)**

**Corn on Cash Rent**

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	125	25	25	25
Acres	546.91	634.71	343.67	511.03
Yield per acre (bu.)	153.92	107.95	164.89	196.12
Operators share of yield %	100.00	100.00	100.00	100.00
Value per bu.	3.32	3.27	3.32	3.32
Other product return per acre	0.02	-	-	-
Total product return per acre	510.91	352.74	548.16	651.71
Hedging gains/losses per acre	1.01	-	1.16	-
Crop insurance per acre	14.14	36.28	4.88	0.75
Other crop income per acre	3.89	4.57	5.18	4.39
Gross return per acre	529.95	393.59	559.39	656.85
<b>Direct Expenses</b>				
Seed and plants	86.54	83.28	92.44	86.38
Fertilizer	97.52	92.84	107.54	100.18
Crop chemicals	23.66	22.55	30.32	23.26
Crop insurance	17.05	13.83	16.72	19.54
Drying expense	11.72	3.37	15.24	14.63
Fuel & oil	21.97	19.11	27.24	21.11
Repairs	36.59	29.50	46.84	30.67
Custom hire	5.01	8.54	2.52	3.37
Hired labor	0.58	1.25	0.09	-
Land rent	102.67	88.26	102.24	113.68
Machinery leases	0.78	0.62	2.79	0.15
Operating interest	12.59	18.11	12.77	9.47
Miscellaneous	2.15	0.65	1.16	1.65
Total direct expenses per acre	418.82	381.91	457.89	424.10
Return over direct exp per acre	111.13	11.68	101.50	232.75
<b>Overhead Expenses</b>				
Custom hire	1.44	2.57	1.15	0.08
Hired labor	18.48	18.65	12.58	23.25
Machinery leases	10.00	13.82	10.56	7.91
Building leases	0.61	0.03	0.65	0.15
Farm insurance	5.79	4.83	5.80	5.57
Utilities	5.15	4.69	7.05	5.45
Dues & professional fees	3.07	2.59	2.23	2.56
Interest	4.52	4.22	4.63	5.71
Mach & bldg depreciation	45.14	49.00	37.12	36.24
Miscellaneous	4.53	5.67	2.58	2.90
Total overhead expenses per acre	98.73	106.07	84.34	89.81
Total dir & ovhd expenses per acre	517.54	487.98	542.23	513.90
Net return per acre	12.40	-94.39	17.15	142.94
Government payments	6.04	8.87	9.17	1.54
Net return with govt pmnts	18.44	-85.52	26.33	144.49
Labor & management charge	37.79	33.14	47.38	34.96
Net return over lbr & mgt	-19.35	-118.66	-21.06	109.53
<b>Cost of Production</b>				
Total direct expense per bu.	2.72	3.54	2.78	2.16
Total dir & ovhd exp per bu.	3.36	4.52	3.29	2.62
Less govt & other income	3.20	4.06	3.16	2.59
With labor & management	3.44	4.37	3.45	2.76
Net value per unit	3.33	3.27	3.33	3.32
Machinery cost per acre	120.93	121.98	131.14	101.88
Est. labor hours per acre	1.69	1.62	1.91	1.62

**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education Program**  
**State Report, 2018**  
**(Farms Sorted By Net Return)**

**Corn on Share Rent**

	<u>Avg. Of All Farms</u>
Number of farms	9
Acres	164.42
Yield per acre (bu.)	186.98
Operators share of yield %	67.87
Value per bu.	3.25
Total product return per acre	412.36
Hedging gains/losses per acre	0.87
Crop insurance per acre	0.45
Other crop income per acre	2.02
Gross return per acre	415.69
<b>Direct Expenses</b>	
Seed and plants	77.27
Fertilizer	100.68
Crop chemicals	17.83
Crop insurance	12.93
Drying expense	18.84
Fuel & oil	19.64
Repairs	33.78
Custom hire	0.65
Hired labor	1.93
Operating interest	1.71
Miscellaneous	0.71
Total direct expenses per acre	285.98
Return over direct exp per acre	129.72
<b>Overhead Expenses</b>	
Custom hire	1.98
Hired labor	11.54
Machinery leases	1.59
Building leases	1.08
Farm insurance	6.73
Utilities	7.33
Dues & professional fees	1.09
Interest	1.57
Mach & bldg depreciation	52.77
Miscellaneous	1.81
Total overhead expenses per acre	87.49
Total dir & ovhd expenses per acre	373.47
Net return per acre	42.23
Government payments	2.44
Net return with govt pmts	44.67
Labor & management charge	35.63
Net return over lbr & mgt	9.03
<b>Cost of Production</b>	
Total direct expense per bu.	2.25
Total dir & ovhd exp per bu.	2.94
Less govt & other income	2.90
With labor & management	3.18
Net value per unit	3.26
Machinery cost per acre	109.24
Est. labor hours per acre	1.83

**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education Program**  
**State Report, 2018**  
**(Farms Sorted By Net Return)**

**Corn Silage on Owned Land**

	<u>Avg. Of All Farms</u>
Number of farms	15
Acres	72.71
Yield per acre (ton)	17.35
Operators share of yield %	100.00
Value per ton	28.57
Total product return per acre	495.78
Gross return per acre	495.78
<b>Direct Expenses</b>	
Seed and plants	75.46
Fertilizer	54.55
Crop chemicals	18.55
Crop insurance	11.64
Fuel & oil	23.79
Repairs	39.43
Custom hire	68.59
Operating interest	9.05
Miscellaneous	0.50
Total direct expenses per acre	301.56
Return over direct exp per acre	194.22
<b>Overhead Expenses</b>	
Custom hire	2.70
Hired labor	7.80
Machinery leases	0.98
Building leases	0.46
RE & pers. property taxes	5.36
Farm insurance	4.04
Utilities	3.31
Dues & professional fees	1.16
Interest	17.49
Mach & bldg depreciation	40.38
Miscellaneous	3.03
Total overhead expenses per acre	86.72
Total dir & ovhd expenses per acre	388.28
Net return per acre	107.50
Government payments	19.12
Net return with govt pmts	126.62
Labor & management charge	35.91
Net return over lbr & mgt	90.71
<b>Cost of Production</b>	
Total direct expense per ton	17.38
Total dir & ovhd exp per ton	22.37
Less govt & other income	21.27
With labor & management	23.34
Net value per unit	28.57
Machinery cost per acre	174.92
Est. labor hours per acre	2.81

**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education Program**  
**State Report, 2018**  
**(Farms Sorted By Net Return)**

**Corn Silage on Cash Rent**

	<u>Avg. Of All Farms</u>
Number of farms	13
Acres	126.94
Yield per acre (ton)	18.60
Operators share of yield %	100.00
Value per ton	28.74
Total product return per acre	534.42
Crop insurance per acre	2.00
Other crop income per acre	4.29
Gross return per acre	540.71
<b>Direct Expenses</b>	
Seed and plants	83.52
Fertilizer	84.42
Crop chemicals	25.76
Crop insurance	17.75
Fuel & oil	21.34
Repairs	36.00
Custom hire	26.86
Land rent	88.28
Operating interest	8.28
Miscellaneous	0.04
Total direct expenses per acre	392.26
Return over direct exp per acre	148.45
<b>Overhead Expenses</b>	
Custom hire	1.21
Hired labor	24.31
Machinery leases	3.61
Farm insurance	5.72
Utilities	4.64
Dues & professional fees	2.64
Interest	9.37
Mach & bldg depreciation	38.47
Miscellaneous	3.70
Total overhead expenses per acre	93.67
Total dir & ovhd expenses per acre	485.92
Net return per acre	54.79
Government payments	4.76
Net return with govt pmts	59.54
Labor & management charge	41.27
Net return over lbr & mgt	18.27
<b>Cost of Production</b>	
Total direct expense per ton	21.09
Total dir & ovhd exp per ton	26.13
Less govt & other income	25.53
With labor & management	27.75
Net value per unit	28.74
Machinery cost per acre	132.93
Est. labor hours per acre	2.06

**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education Program**  
**State Report, 2018**  
**(Farms Sorted By Net Return)**

**CRP on Owned Land**

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	29	5	6	6
Acres	126.29	134.70	151.35	130.87
Yield per acre (\$)	56.39	74.30	31.65	84.83
Operators share of yield %	100.00	100.00	100.00	100.00
Value per \$	1.00	1.00	1.00	1.00
Total product return per acre	56.39	74.30	31.65	84.83
Gross return per acre	56.39	74.30	31.65	84.83
<b>Direct Expenses</b>				
Crop chemicals	0.41	-	0.29	1.56
Fuel & oil	0.77	1.44	0.19	1.23
Repairs	1.90	3.54	0.88	2.79
Miscellaneous	0.20	0.36	0.09	0.38
Total direct expenses per acre	3.29	5.33	1.44	5.96
Return over direct exp per acre	53.10	68.97	30.20	78.87
<b>Overhead Expenses</b>				
Hired labor	0.37	1.40	0.08	0.21
RE & pers. property taxes	7.52	10.87	3.43	9.29
Farm insurance	1.83	6.52	0.91	1.30
Utilities	0.26	0.52	0.15	0.20
Dues & professional fees	0.21	0.70	0.19	0.00
Interest	26.32	105.06	3.58	2.84
Mach & bldg depreciation	1.61	2.84	1.42	1.85
Miscellaneous	0.50	0.71	0.44	1.03
Total overhead expenses per acre	38.62	128.61	10.21	16.72
Total dir & ovhd expenses per acre	41.91	133.94	11.65	22.69
Net return per acre	14.48	-59.64	19.99	62.15

**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education Program**  
**State Report, 2018**  
**(Farms Sorted By Net Return)**

**Flax on Owned Land**

	<u>Avg. Of All Farms</u>
Number of farms	8
Acres	161.03
Yield per acre (bu.)	25.24
Operators share of yield %	100.00
Value per bu.	9.78
Total product return per acre	246.81
Crop insurance per acre	1.36
Gross return per acre	248.17
<b>Direct Expenses</b>	
Seed and plants	13.70
Fertilizer	25.52
Crop chemicals	21.63
Crop insurance	15.23
Fuel & oil	10.05
Repairs	13.54
Custom hire	5.31
Operating interest	2.77
Miscellaneous	0.61
Total direct expenses per acre	108.36
Return over direct exp per acre	139.81
<b>Overhead Expenses</b>	
Custom hire	1.57
Hired labor	5.15
RE & pers. property taxes	6.26
Farm insurance	4.46
Utilities	2.44
Interest	9.05
Mach & bldg depreciation	31.73
Miscellaneous	4.38
Total overhead expenses per acre	65.03
Total dir & ovhd expenses per acre	173.39
Net return per acre	74.78
Government payments	14.18
Net return with govt pmts	88.95
Labor & management charge	21.13
Net return over lbr & mgt	67.83
<b>Cost of Production</b>	
Total direct expense per bu.	4.29
Total dir & ovhd exp per bu.	6.87
Less govt & other income	6.26
With labor & management	7.09
Net value per unit	9.78
Machinery cost per acre	64.08
Est. labor hours per acre	1.34

**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education Program**  
**State Report, 2018**  
**(Farms Sorted By Net Return)**

**Flax on Cash Rent**

	<u>Avg. Of All Farms</u>
Number of farms	5
Acres	140.60
Yield per acre (bu.)	19.02
Operators share of yield %	100.00
Value per bu.	9.72
Total product return per acre	184.81
Crop insurance per acre	1.79
Gross return per acre	186.60
<b>Direct Expenses</b>	
Seed and plants	13.97
Fertilizer	29.03
Crop chemicals	26.20
Crop insurance	10.11
Fuel & oil	7.11
Repairs	12.82
Custom hire	15.33
Land rent	41.82
Machinery leases	1.89
Operating interest	2.61
Miscellaneous	0.49
Total direct expenses per acre	161.38
Return over direct exp per acre	25.22
<b>Overhead Expenses</b>	
Hired labor	1.45
Farm insurance	2.74
Utilities	3.01
Dues & professional fees	0.35
Interest	1.22
Mach & bldg depreciation	21.20
Miscellaneous	4.12
Total overhead expenses per acre	34.09
Total dir & ovhd expenses per acre	195.46
Net return per acre	-8.87
Government payments	20.02
Net return with govt pmts	11.16
Labor & management charge	24.40
Net return over lbr & mgt	-13.24
<b>Cost of Production</b>	
Total direct expense per bu.	8.48
Total dir & ovhd exp per bu.	10.28
Less govt & other income	9.13
With labor & management	10.41
Net value per unit	9.72
Machinery cost per acre	55.89
Est. labor hours per acre	0.97

**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education Program**  
**State Report, 2018**  
**(Farms Sorted By Net Return)**

**Hay, Alfalfa on Owned Land**

	<u>Avg. Of All Farms</u>
Number of farms	18
Acres	133.02
Yield per acre (ton)	2.46
Operators share of yield %	100.00
Value per ton	78.82
Total product return per acre	193.74
Other crop income per acre	2.18
Gross return per acre	195.92
<b>Direct Expenses</b>	
Seed and plants	0.85
Fertilizer	5.37
Fuel & oil	10.55
Repairs	18.53
Custom hire	3.01
Machinery leases	4.14
Operating interest	4.63
Miscellaneous	0.02
Total direct expenses per acre	47.11
Return over direct exp per acre	148.81
<b>Overhead Expenses</b>	
Hired labor	8.71
Machinery leases	2.34
RE & pers. property taxes	8.35
Farm insurance	3.29
Utilities	3.41
Dues & professional fees	0.96
Interest	42.87
Mach & bldg depreciation	16.25
Miscellaneous	2.18
Total overhead expenses per acre	88.37
Total dir & ovhd expenses per acre	135.48
Net return per acre	60.44
Government payments	0.06
Net return with govt pmts	60.50
Labor & management charge	16.64
Net return over lbr & mgt	43.86
<b>Cost of Production</b>	
Total direct expense per ton	19.17
Total dir & ovhd exp per ton	55.12
Less govt & other income	54.21
With labor & management	60.98
Net value per unit	78.82
Machinery cost per acre	56.79
Est. labor hours per acre	0.99

**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education Program**  
**State Report, 2018**  
**(Farms Sorted By Net Return)**

**Hay, Alfalfa on Cash Rent**

	<u>Avg. Of All Farms</u>
Number of farms	13
Acres	153.74
Yield per acre (ton)	1.72
Operators share of yield %	100.00
Value per ton	79.39
Other product return per acre	0.20
Total product return per acre	136.54
Crop insurance per acre	3.06
Gross return per acre	139.60
<b>Direct Expenses</b>	
Seed and plants	3.78
Fertilizer	6.24
Crop chemicals	0.21
Crop insurance	1.75
Fuel & oil	7.44
Repairs	13.69
Hired labor	1.01
Land rent	43.25
Operating interest	1.97
Miscellaneous	0.90
Total direct expenses per acre	80.24
Return over direct exp per acre	59.36
<b>Overhead Expenses</b>	
Custom hire	2.43
Hired labor	2.88
Machinery leases	0.39
Farm insurance	3.81
Utilities	3.71
Dues & professional fees	1.63
Interest	3.53
Mach & bldg depreciation	19.55
Miscellaneous	4.02
Total overhead expenses per acre	41.95
Total dir & ovhd expenses per acre	122.19
Net return per acre	17.41
Government payments	5.15
Net return with govt pmts	22.56
Labor & management charge	16.77
Net return over lbr & mgt	5.79
<b>Cost of Production</b>	
Total direct expense per ton	46.72
Total dir & ovhd exp per ton	71.15
Less govt & other income	66.26
With labor & management	76.02
Net value per unit	79.39
Machinery cost per acre	44.88
Est. labor hours per acre	1.09

**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education Program**  
**State Report, 2018**  
**(Farms Sorted By Net Return)**

**Hay, Grass on Owned Land**

	<b>Avg. Of All Farms</b>
Number of farms	11
Acres	148.32
Yield per acre (ton)	1.12
Operators share of yield %	100.00
Value per ton	39.32
Total product return per acre	43.86
Crop insurance per acre	0.02
Other crop income per acre	0.46
Gross return per acre	44.34
<b>Direct Expenses</b>	
Fuel & oil	7.17
Repairs	14.69
Operating interest	1.13
Miscellaneous	0.11
Total direct expenses per acre	23.09
Return over direct exp per acre	21.25
<b>Overhead Expenses</b>	
Hired labor	0.89
Machinery leases	0.38
Building leases	0.02
RE & pers. property taxes	3.10
Farm insurance	1.07
Utilities	1.26
Dues & professional fees	0.46
Interest	7.47
Mach & bldg depreciation	12.53
Miscellaneous	1.42
Total overhead expenses per acre	28.61
Total dir & ovhd expenses per acre	51.70
Net return per acre	-7.36
Government payments	0.22
Net return with govt pmts	-7.14
Labor & management charge	12.58
Net return over lbr & mgt	-19.72
<b>Cost of Production</b>	
Total direct expense per ton	20.70
Total dir & ovhd exp per ton	46.34
Less govt & other income	45.72
With labor & management	56.99
Net value per unit	39.32
Machinery cost per acre	35.37
Est. labor hours per acre	1.04

**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education Program**  
**State Report, 2018**  
**(Farms Sorted By Net Return)**

**Hay, Grass on Cash Rent**

	<b>Avg. Of All Farms</b>
Number of farms	23
Acres	205.61
Yield per acre (ton)	1.05
Operators share of yield %	100.00
Value per ton	47.14
Total product return per acre	49.42
Crop insurance per acre	0.10
Other crop income per acre	1.65
Gross return per acre	51.17
<b>Direct Expenses</b>	
Fuel & oil	7.51
Repairs	11.53
Land rent	20.13
Operating interest	1.78
Miscellaneous	0.67
Total direct expenses per acre	41.62
Return over direct exp per acre	9.55
<b>Overhead Expenses</b>	
Hired labor	1.20
Machinery leases	0.66
Farm insurance	1.38
Utilities	1.04
Dues & professional fees	0.50
Interest	0.85
Mach & bldg depreciation	14.73
Miscellaneous	1.53
Total overhead expenses per acre	21.89
Total dir & ovhd expenses per acre	63.51
Net return per acre	-12.34
Government payments	0.19
Net return with govt pmts	-12.15
Labor & management charge	12.60
Net return over lbr & mgt	-24.75
<b>Cost of Production</b>	
Total direct expense per ton	39.69
Total dir & ovhd exp per ton	60.58
Less govt & other income	58.73
With labor & management	70.74
Net value per unit	47.14
Machinery cost per acre	34.65
Est. labor hours per acre	0.89

**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education Program**  
**State Report, 2018**  
**(Farms Sorted By Net Return)**

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

	<u>Avg. Of All Farms</u>
Number of farms	23
Acres	168.42
Yield per acre (ton)	1.23
Operators share of yield %	100.00
Value per ton	55.96
Other product return per acre	0.39
Total product return per acre	69.07
Crop insurance per acre	1.53
Other crop income per acre	0.36
Gross return per acre	70.96
<b>Direct Expenses</b>	
Fertilizer	0.69
Crop chemicals	0.19
Crop insurance	0.79
Fuel & oil	8.16
Repairs	13.38
Custom hire	2.53
Operating interest	1.70
Miscellaneous	0.27
Total direct expenses per acre	27.71
Return over direct exp per acre	43.25
<b>Overhead Expenses</b>	
Custom hire	0.17
Hired labor	2.51
Machinery leases	0.26
RE & pers. property taxes	4.28
Farm insurance	3.91
Utilities	2.49
Dues & professional fees	1.11
Interest	14.94
Mach & bldg depreciation	13.47
Miscellaneous	2.54
Total overhead expenses per acre	45.67
Total dir & ovhd expenses per acre	73.39
Net return per acre	-2.42
Government payments	1.50
Net return with govt pmts	-0.92
Labor & management charge	13.27
Net return over lbr & mgt	-14.19
<b>Cost of Production</b>	
Total direct expense per ton	22.58
Total dir & ovhd exp per ton	59.79
Less govt & other income	56.71
With labor & management	67.52
Net value per unit	55.96
Machinery cost per acre	39.59
Est. labor hours per acre	0.92

**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education Program**  
**State Report, 2018**  
**(Farms Sorted By Net Return)**

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

	<u>Avg. Of All Farms</u>
Number of farms	19
Acres	154.51
Yield per acre (ton)	1.27
Operators share of yield %	100.00
Value per ton	56.32
Total product return per acre	71.48
Crop insurance per acre	0.91
Other crop income per acre	1.56
Gross return per acre	73.95
<b>Direct Expenses</b>	
Fertilizer	0.40
Crop insurance	0.45
Fuel & oil	8.78
Repairs	13.72
Hired labor	1.43
Land rent	23.63
Operating interest	1.93
Total direct expenses per acre	50.34
Return over direct exp per acre	23.61
<b>Overhead Expenses</b>	
Custom hire	0.69
Hired labor	0.30
Farm insurance	4.10
Utilities	3.36
Dues & professional fees	2.30
Interest	3.01
Mach & bldg depreciation	15.22
Miscellaneous	3.42
Total overhead expenses per acre	32.42
Total dir & ovhd expenses per acre	82.75
Net return per acre	-8.81
Government payments	3.62
Net return with govt pmts	-5.19
Labor & management charge	15.10
Net return over lbr & mgt	-20.28
<b>Cost of Production</b>	
Total direct expense per ton	39.66
Total dir & ovhd exp per ton	65.20
Less govt & other income	60.40
With labor & management	72.30
Net value per unit	56.32
Machinery cost per acre	39.44
Est. labor hours per acre	0.91

**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education Program**  
**State Report, 2018**  
**(Farms Sorted By Net Return)**

**Hay, Small Grain on Owned Land**

	<u>Avg. Of All Farms</u>
Number of farms	15
Acres	99.53
Yield per acre (ton)	2.07
Operators share of yield %	100.00
Value per ton	58.93
Other product return per acre	0.17
Total product return per acre	122.33
Gross return per acre	122.33
<b>Direct Expenses</b>	
Seed and plants	19.03
Fertilizer	18.90
Crop chemicals	9.88
Fuel & oil	9.18
Repairs	17.40
Custom hire	3.77
Hired labor	0.79
Operating interest	2.68
Miscellaneous	0.68
Total direct expenses per acre	82.31
Return over direct exp per acre	40.02
<b>Overhead Expenses</b>	
Hired labor	4.30
RE & pers. property taxes	4.40
Farm insurance	3.89
Utilities	2.91
Dues & professional fees	1.29
Interest	15.87
Mach & bldg depreciation	16.35
Miscellaneous	5.51
Total overhead expenses per acre	54.51
Total dir & ovhd expenses per acre	136.82
Net return per acre	-14.49
Government payments	27.39
Net return with govt pmts	12.90
Labor & management charge	15.12
Net return over lbr & mgt	-2.22
<b>Cost of Production</b>	
Total direct expense per ton	39.70
Total dir & ovhd exp per ton	66.00
Less govt & other income	52.71
With labor & management	60.00
Net value per unit	58.93
Machinery cost per acre	48.39
Est. labor hours per acre	1.17

**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education Program**  
**State Report, 2018**  
**(Farms Sorted By Net Return)**

**Hay, Small Grain on Cash Rent**

	<u>Avg. Of All Farms</u>
Number of farms	18
Acres	85.58
Yield per acre (ton)	1.74
Operators share of yield %	100.00
Value per ton	56.74
Other product return per acre	1.53
Total product return per acre	100.11
Other crop income per acre	0.15
Gross return per acre	100.26
<b>Direct Expenses</b>	
Seed and plants	24.92
Fertilizer	23.42
Crop chemicals	13.38
Crop insurance	1.42
Fuel & oil	10.81
Repairs	15.59
Custom hire	7.81
Land rent	38.06
Operating interest	2.28
Miscellaneous	0.58
Total direct expenses per acre	138.25
Return over direct exp per acre	-37.99
<b>Overhead Expenses</b>	
Custom hire	0.38
Hired labor	2.51
Machinery leases	0.45
Farm insurance	3.97
Utilities	2.80
Dues & professional fees	1.94
Interest	3.65
Mach & bldg depreciation	12.33
Miscellaneous	6.06
Total overhead expenses per acre	34.09
Total dir & ovhd expenses per acre	172.34
Net return per acre	-72.08
Government payments	11.66
Net return with govt pmts	-60.42
Labor & management charge	18.98
Net return over lbr & mgt	-79.40
<b>Cost of Production</b>	
Total direct expense per ton	79.56
Total dir & ovhd exp per ton	99.18
Less govt & other income	91.51
With labor & management	102.43
Net value per unit	56.74
Machinery cost per acre	49.21
Est. labor hours per acre	1.35

**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education Program**  
**State Report, 2018**  
**(Farms Sorted By Net Return)**

**Oats on Cash Rent**

	<u>Avg. Of All Farms</u>
Number of farms	10
Acres	87.76
Yield per acre (bu.)	59.07
Operators share of yield %	100.00
Value per bu.	2.74
Total product return per acre	161.98
Crop insurance per acre	5.92
Gross return per acre	167.89
<b>Direct Expenses</b>	
Seed and plants	11.74
Fertilizer	26.30
Crop chemicals	21.92
Crop insurance	7.15
Fuel & oil	10.26
Repairs	17.29
Custom hire	10.20
Land rent	45.67
Operating interest	4.28
Miscellaneous	0.82
Total direct expenses per acre	155.63
Return over direct exp per acre	12.26
<b>Overhead Expenses</b>	
Custom hire	0.36
Hired labor	5.00
Machinery leases	1.11
Building leases	0.36
Farm insurance	3.30
Utilities	1.95
Dues & professional fees	1.97
Interest	1.98
Mach & bldg depreciation	17.05
Miscellaneous	1.77
Total overhead expenses per acre	34.85
Total dir & ovhd expenses per acre	190.48
Net return per acre	-22.59
Government payments	17.93
Net return with govt pmts	-4.66
Labor & management charge	18.26
Net return over lbr & mgt	-22.92
<b>Cost of Production</b>	
Total direct expense per bu.	2.63
Total dir & ovhd exp per bu.	3.22
Less govt & other income	2.82
With labor & management	3.13
Net value per unit	2.74
Machinery cost per acre	56.19
Est. labor hours per acre	1.02

**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education Program**  
**State Report, 2018**  
**(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	47	9	10	10
Acres	578.62	180.03	759.40	489.47
Yield per acre (aum)	0.87	0.90	0.79	1.18
Operators share of yield %	100.00	100.00	100.00	100.00
Value per aum	18.11	21.60	17.30	20.70
Other product return per acre	0.02	-	0.08	-
Total product return per acre	15.82	19.44	13.82	24.36
Crop insurance per acre	0.53	-	0.17	0.01
Other crop income per acre	0.44	-	-	2.14
Gross return per acre	16.78	19.44	13.99	26.51
<b>Direct Expenses</b>				
Fuel & oil	0.47	0.80	0.37	0.64
Repairs	0.81	1.43	0.63	0.79
Hired labor	0.03	0.53	-	-
Miscellaneous	0.65	0.58	0.80	0.16
Total direct expenses per acre	1.96	3.34	1.80	1.59
Return over direct exp per acre	14.82	16.09	12.20	24.93
<b>Overhead Expenses</b>				
RE & pers. property taxes	2.77	5.74	2.54	3.19
Farm insurance	0.30	1.07	0.25	0.56
Interest	6.33	23.80	5.20	2.92
Mach & bldg depreciation	0.77	0.85	0.64	1.17
Miscellaneous	0.63	0.90	0.61	0.76
Total overhead expenses per acre	10.81	32.36	9.23	8.60
Total dir & ovhd expenses per acre	12.77	35.70	11.03	10.19
Net return per acre	4.01	-16.27	2.97	16.32

**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education Program**  
**State Report, 2018**  
**(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	64	12	13	13
Acres	1,051.17	930.53	1,278.55	709.84
Yield per acre (aum)	0.88	0.74	0.78	1.17
Operators share of yield %	100.00	100.00	100.00	100.00
Value per aum	19.10	16.61	16.92	21.26
Other product return per acre	0.02	-	0.09	-
Total product return per acre	16.84	12.37	13.36	24.79
Crop insurance per acre	0.29	-	-	-
Other crop income per acre	0.43	-	-	1.84
Gross return per acre	17.56	12.37	13.36	26.63
<b>Direct Expenses</b>				
Fuel & oil	0.46	0.54	0.31	0.48
Repairs	0.68	0.76	0.40	0.76
Hired labor	0.13	0.76	-	0.06
Land rent	15.34	18.98	12.48	14.97
Miscellaneous	0.50	0.94	0.19	0.32
Total direct expenses per acre	17.12	21.97	13.37	16.59
Return over direct exp per acre	0.44	-9.61	-0.02	10.04
<b>Overhead Expenses</b>				
Farm insurance	0.35	0.99	0.17	0.24
Mach & bldg depreciation	0.80	1.10	0.54	0.92
Miscellaneous	0.90	1.97	0.83	0.65
Total overhead expenses per acre	2.06	4.06	1.53	1.80
Total dir & ovhd expenses per acre	19.18	26.03	14.90	18.39
Net return per acre	-1.62	-13.66	-1.55	8.24

**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education Program**  
**State Report, 2018**  
**(Farms Sorted By Net Return)**

**Peas, Field on Owned Land**

	<u>Avg. Of All Farms</u>
Number of farms	9
Acres	111.87
Yield per acre (bu.)	36.38
Operators share of yield %	100.00
Value per bu.	6.17
Total product return per acre	224.36
Crop insurance per acre	6.37
Gross return per acre	230.73
<b>Direct Expenses</b>	
Seed and plants	33.07
Fertilizer	11.43
Crop chemicals	37.21
Crop insurance	17.93
Fuel & oil	11.38
Repairs	15.10
Custom hire	3.29
Hired labor	1.27
Machinery leases	0.62
Operating interest	6.82
Miscellaneous	0.37
Total direct expenses per acre	138.49
Return over direct exp per acre	92.24
<b>Overhead Expenses</b>	
Hired labor	7.93
Machinery leases	0.09
Building leases	0.78
RE & pers. property taxes	8.90
Farm insurance	3.93
Utilities	2.25
Dues & professional fees	0.61
Interest	19.58
Mach & bldg depreciation	32.08
Miscellaneous	3.93
Total overhead expenses per acre	80.08
Total dir & ovhd expenses per acre	218.58
Net return per acre	12.16
Government payments	7.02
Net return with govt pmts	19.18
Labor & management charge	25.42
Net return over lbr & mgt	-6.24
<b>Cost of Production</b>	
Total direct expense per bu.	3.81
Total dir & ovhd exp per bu.	6.01
Less govt & other income	5.64
With labor & management	6.34
Net value per unit	6.17
Machinery cost per acre	62.01
Est. labor hours per acre	1.40

**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education Program**  
**State Report, 2018**  
**(Farms Sorted By Net Return)**

**Peas, Field on Cash Rent**

	<u>Avg. Of All Farms</u>
Number of farms	13
Acres	320.17
Yield per acre (bu.)	37.44
Operators share of yield %	100.00
Value per bu.	7.18
Total product return per acre	268.69
Crop insurance per acre	16.53
Other crop income per acre	2.43
Gross return per acre	287.66
<b>Direct Expenses</b>	
Seed and plants	39.61
Fertilizer	11.45
Crop chemicals	40.25
Crop insurance	17.01
Fuel & oil	11.08
Repairs	20.08
Custom hire	3.94
Hired labor	4.52
Land rent	58.86
Machinery leases	2.33
Operating interest	7.08
Miscellaneous	1.43
Total direct expenses per acre	217.63
Return over direct exp per acre	70.03
<b>Overhead Expenses</b>	
Hired labor	5.25
Machinery leases	3.83
Building leases	0.92
Farm insurance	5.41
Utilities	3.94
Dues & professional fees	0.52
Interest	3.27
Mach & bldg depreciation	24.59
Miscellaneous	8.42
Total overhead expenses per acre	56.15
Total dir & ovhd expenses per acre	273.78
Net return per acre	13.88
Government payments	17.42
Net return with govt pmts	31.29
Labor & management charge	21.81
Net return over lbr & mgt	9.48
<b>Cost of Production</b>	
Total direct expense per bu.	5.81
Total dir & ovhd exp per bu.	7.31
Less govt & other income	6.34
With labor & management	6.92
Net value per unit	7.18
Machinery cost per acre	64.51
Est. labor hours per acre	1.11

**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education Program**  
**State Report, 2018**  
**(Farms Sorted By Net Return)**

**Prevented planting on Owned Land**

	<u>Avg. Of All Farms</u>
Number of farms	7
Acres	69.91
Yield per acre	-
Operators share of yield %	-
Value per 0	-
Total product return per acre	-
Crop insurance per acre	142.40
Gross return per acre	142.40
<b>Direct Expenses</b>	
Crop chemicals	1.56
Cover crop expense	0.83
Crop insurance	16.20
Fuel & oil	4.87
Repairs	8.13
Operating interest	1.60
Miscellaneous	0.44
Total direct expenses per acre	33.62
Return over direct exp per acre	108.78
<b>Overhead Expenses</b>	
Hired labor	2.94
Machinery leases	0.19
RE & pers. property taxes	7.42
Farm insurance	4.98
Utilities	5.09
Dues & professional fees	0.87
Interest	42.63
Mach & bldg depreciation	8.26
Miscellaneous	7.08
Total overhead expenses per acre	79.45
Total dir & ovhd expenses per acre	113.07
Net return per acre	29.33
Government payments	11.42
Net return with govt pmts	40.75
Labor & management charge	7.87
Net return over lbr & mgt	32.87
Machinery cost per acre	24.13
Est. labor hours per acre	0.43

**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education Program**  
**State Report, 2018**  
**(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	122	24	25	25
Acres	294.72	256.66	367.14	249.42
Yield per acre (bu.)	36.02	25.51	35.93	52.09
Operators share of yield %	100.00	100.00	100.00	100.00
Value per bu.	8.34	8.48	8.17	8.65
Total product return per acre	300.31	216.23	293.35	450.81
Hedging gains/losses per acre	0.39	-	-	-
Crop insurance per acre	21.57	42.30	8.35	5.09
Other crop income per acre	56.78	42.99	52.79	87.09
Gross return per acre	379.06	301.52	354.48	542.99
<b>Direct Expenses</b>				
Seed and plants	63.83	67.47	67.09	56.85
Fertilizer	9.46	15.85	11.30	5.21
Crop chemicals	31.47	40.35	24.09	35.61
Crop insurance	16.59	20.66	14.20	18.75
Fuel & oil	13.82	13.40	13.77	15.22
Repairs	22.16	27.41	19.96	26.26
Custom hire	4.43	4.75	3.88	4.66
Machinery leases	1.22	1.32	0.25	5.06
Operating interest	6.05	6.11	6.83	7.94
Miscellaneous	1.66	3.41	1.18	0.98
Total direct expenses per acre	170.68	200.74	162.56	176.54
Return over direct exp per acre	208.38	100.79	191.92	366.44
<b>Overhead Expenses</b>				
Custom hire	1.33	1.09	2.09	2.71
Hired labor	9.09	5.47	10.62	10.16
Machinery leases	2.22	3.68	1.12	3.45
Building leases	0.34	0.03	0.56	0.24
RE & pers. property taxes	12.04	9.00	9.10	20.45
Farm insurance	5.88	5.76	5.19	6.91
Utilities	4.31	4.66	3.35	6.24
Dues & professional fees	1.87	1.26	1.20	3.91
Interest	31.34	57.88	17.64	31.11
Mach & bldg depreciation	34.00	30.29	46.06	28.19
Miscellaneous	4.28	5.93	4.68	4.06
Total overhead expenses per acre	106.70	125.04	101.63	117.43
Total dir & ovhd expenses per acre	277.38	325.78	264.18	293.97
Net return per acre	101.68	-24.26	90.30	249.02
Government payments	11.95	21.16	12.49	2.44
Net return with govt pmts	113.63	-3.10	102.78	251.46
Labor & management charge	24.94	25.35	23.88	30.05
Net return over lbr & mgt	88.70	-28.46	78.90	221.41
<b>Cost of Production</b>				
Total direct expense per bu.	4.74	7.87	4.52	3.39
Total dir & ovhd exp per bu.	7.70	12.77	7.35	5.64
Less govt & other income	5.18	8.60	5.30	3.83
With labor & management	5.87	9.59	5.97	4.40
Net value per unit	8.35	8.48	8.17	8.65
Machinery cost per acre	79.21	81.79	86.26	85.26
Est. labor hours per acre	1.20	1.21	1.26	1.18

**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education Program**  
**State Report, 2018**  
**(Farms Sorted By Net Return)**

**Soybeans on Cash Rent**

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	187	37	38	38
Acres	799.76	744.76	805.94	818.97
Yield per acre (bu.)	36.56	27.70	36.46	49.23
Operators share of yield %	100.00	100.00	100.00	100.00
Value per bu.	8.27	8.06	8.19	8.59
Total product return per acre	302.31	223.22	298.46	422.68
Hedging gains/losses per acre	1.67	-	2.32	0.48
Crop insurance per acre	25.51	40.99	16.32	5.59
Other crop income per acre	57.91	39.98	56.51	81.12
Gross return per acre	387.40	304.19	373.61	509.86
<b>Direct Expenses</b>				
Seed and plants	61.72	64.22	60.46	51.54
Fertilizer	9.92	10.03	10.39	5.79
Crop chemicals	30.24	34.17	30.46	30.14
Crop insurance	16.52	18.02	18.03	17.84
Fuel & oil	13.18	12.92	14.68	13.30
Repairs	22.62	25.34	20.99	23.77
Custom hire	2.58	3.64	2.45	2.63
Land rent	81.53	76.80	73.40	111.61
Machinery leases	1.63	4.77	0.75	1.97
Operating interest	6.35	8.46	7.65	6.04
Miscellaneous	1.49	0.93	1.61	0.62
Total direct expenses per acre	247.78	259.29	240.86	265.25
Return over direct exp per acre	139.61	44.90	132.75	244.61
<b>Overhead Expenses</b>				
Custom hire	0.80	1.27	0.69	0.46
Hired labor	11.40	9.34	10.32	16.84
Machinery leases	4.62	5.48	6.00	6.02
Building leases	0.41	0.14	0.60	0.41
Farm insurance	4.98	5.17	4.92	4.81
Utilities	3.68	3.68	3.38	3.80
Dues & professional fees	2.49	1.50	1.61	3.25
Interest	3.25	4.21	2.23	3.74
Mach & bldg depreciation	29.52	30.43	34.65	25.99
Miscellaneous	3.65	4.79	4.60	2.79
Total overhead expenses per acre	64.80	66.01	69.01	68.10
Total dir & ovhd expenses per acre	312.58	325.30	309.88	333.35
Net return per acre	74.82	-21.11	63.74	176.51
Government payments	10.84	17.14	11.27	2.26
Net return with govt pmts	85.66	-3.97	75.00	178.78
Labor & management charge	23.62	24.48	23.91	25.14
Net return over lbr & mgt	62.04	-28.45	51.09	153.64
<b>Cost of Production</b>				
Total direct expense per bu.	6.78	9.36	6.61	5.39
Total dir & ovhd exp per bu.	8.55	11.74	8.50	6.77
Less govt & other income	5.93	8.20	6.13	4.95
With labor & management	6.57	9.09	6.78	5.47
Net value per unit	8.32	8.06	8.25	8.60
Machinery cost per acre	75.74	85.80	79.26	75.94
Est. labor hours per acre	1.12	1.09	1.13	1.26

**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education Program**  
**State Report, 2018**  
**(Farms Sorted By Net Return)**

**Soybeans on Share Rent**

	<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	291.12	191.37	457.68	378.74
Yield per acre (bu.)	37.80	29.82	37.05	45.45
Operators share of yield %	69.03	57.04	69.10	71.94
Value per bu.	8.27	8.34	8.25	8.52
Total product return per acre	215.72	141.95	211.31	278.48
Hedging gains/losses per acre	0.33	-	-	1.21
Crop insurance per acre	14.06	19.83	14.72	12.04
Other crop income per acre	43.31	27.52	41.77	55.03
Gross return per acre	273.41	189.30	267.81	346.76
<b>Direct Expenses</b>				
Seed and plants	59.47	74.89	59.61	50.07
Fertilizer	8.66	19.40	3.55	10.80
Crop chemicals	28.01	23.74	36.03	24.14
Crop insurance	13.15	9.60	11.92	13.57
Fuel & oil	12.03	8.58	12.89	12.55
Repairs	21.02	20.19	23.88	20.30
Custom hire	4.43	4.07	1.87	-
Hired labor	0.39	-	1.20	-
Machinery leases	0.38	-	0.90	-
Operating interest	3.30	5.91	1.90	2.04
Miscellaneous	0.79	0.63	0.73	0.99
Total direct expenses per acre	151.63	167.02	154.48	134.46
Return over direct exp per acre	121.78	22.27	113.32	212.30
<b>Overhead Expenses</b>				
Custom hire	0.71	1.46	-	0.01
Hired labor	5.35	9.15	3.43	8.57
Machinery leases	2.65	1.25	5.96	1.67
Building leases	0.41	-	0.45	0.91
Farm insurance	5.72	5.94	4.73	9.03
Utilities	4.10	2.40	4.16	5.93
Dues & professional fees	0.96	3.52	0.58	1.09
Interest	2.08	0.74	1.94	2.22
Mach & bldg depreciation	33.17	39.76	39.20	24.42
Miscellaneous	2.63	4.72	3.56	1.76
Total overhead expenses per acre	57.77	68.96	64.03	55.63
Total dir & ovhd expenses per acre	209.40	235.98	218.52	190.08
Net return per acre	64.01	-46.68	49.29	156.68
Government payments	9.66	10.18	14.58	2.55
Net return with govt pmts	73.67	-36.50	63.87	159.23
Labor & management charge	21.70	23.45	22.62	18.54
Net return over lbr & mgt	51.97	-59.95	41.25	140.69
<b>Cost of Production</b>				
Total direct expense per bu.	5.81	9.82	6.03	4.11
Total dir & ovhd exp per bu.	8.02	13.87	8.54	5.81
Less govt & other income	5.44	10.49	5.76	3.65
With labor & management	6.27	11.87	6.64	4.21
Net value per unit	8.28	8.34	8.25	8.55
Machinery cost per acre	74.59	72.70	85.13	59.77
Est. labor hours per acre	1.08	1.21	0.91	1.13

**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education Program**  
**State Report, 2018**  
**(Farms Sorted By Net Return)**

**Soybeans, Food on Cash Rent**

	<u>Avg. Of All Farms</u>
Number of farms	8
Acres	298.10
Yield per acre (bu.)	37.41
Operators share of yield %	100.00
Value per bu.	10.89
Total product return per acre	407.37
Crop insurance per acre	13.01
Other crop income per acre	63.47
Gross return per acre	483.85
<b>Direct Expenses</b>	
Seed and plants	35.69
Fertilizer	6.15
Crop chemicals	40.37
Crop insurance	17.30
Fuel & oil	14.78
Repairs	29.68
Custom hire	4.50
Land rent	126.74
Machinery leases	0.63
Operating interest	8.53
Miscellaneous	1.24
Total direct expenses per acre	285.59
Return over direct exp per acre	198.25
<b>Overhead Expenses</b>	
Custom hire	0.93
Hired labor	7.45
Machinery leases	5.67
Farm insurance	6.54
Utilities	4.88
Dues & professional fees	5.68
Interest	4.36
Mach & bldg depreciation	34.84
Miscellaneous	2.65
Total overhead expenses per acre	72.99
Total dir & ovhd expenses per acre	358.58
Net return per acre	125.26
Government payments	8.53
Net return with govt pmts	133.80
Labor & management charge	29.97
Net return over lbr & mgt	103.82
<b>Cost of Production</b>	
Total direct expense per bu.	7.63
Total dir & ovhd exp per bu.	9.59
Less govt & other income	7.31
With labor & management	8.11
Net value per unit	10.89
Machinery cost per acre	93.88
Est. labor hours per acre	1.03

**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education Program**  
**State Report, 2018**  
**(Farms Sorted By Net Return)**

**Sugar Beets on Owned Land**

	<u>Avg. Of All Farms</u>
Number of farms	12
Acres	126.64
Yield per acre (ton)	22.96
Operators share of yield %	100.00
Value per ton	34.34
Total product return per acre	788.39
Crop insurance per acre	0.11
Other crop income per acre	26.24
Gross return per acre	814.73
<b>Direct Expenses</b>	
Seed and plants	200.30
Fertilizer	78.08
Crop chemicals	126.32
Crop insurance	31.01
Fuel & oil	65.74
Repairs	88.40
Custom hire	16.65
Hired labor	30.37
Stock/quota lease	18.48
Operating interest	15.02
Miscellaneous	1.63
Total direct expenses per acre	672.00
Return over direct exp per acre	142.73
<b>Overhead Expenses</b>	
Hired labor	56.20
Machinery leases	13.52
Building leases	1.15
RE & pers. property taxes	27.32
Farm insurance	7.71
Utilities	10.34
Dues & professional fees	2.90
Interest	76.40
Mach & bldg depreciation	100.53
Miscellaneous	5.50
Total overhead expenses per acre	301.57
Total dir & ovhd expenses per acre	973.57
Net return per acre	-158.84
Government payments	1.19
Net return with govt pmts	-157.65
Labor & management charge	103.01
Net return over lbr & mgt	-260.66
<b>Cost of Production</b>	
Total direct expense per ton	29.27
Total dir & ovhd exp per ton	42.41
Less govt & other income	41.21
With labor & management	45.69
Net value per unit	34.34
Machinery cost per acre	292.40
Est. labor hours per acre	4.16

**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education Program**  
**State Report, 2018**  
**(Farms Sorted By Net Return)**

**Sugar Beets on Cash Rent**

	<u><b>Avg. Of All Farms</b></u>
Number of farms	23
Acres	238.42
Yield per acre (ton)	24.31
Operators share of yield %	100.00
Value per ton	35.06
Total product return per acre	852.35
Crop insurance per acre	3.99
Other crop income per acre	18.83
Gross return per acre	875.17
<b>Direct Expenses</b>	
Seed and plants	194.07
Fertilizer	81.42
Crop chemicals	118.85
Crop insurance	28.95
Fuel & oil	63.47
Repairs	109.86
Custom hire	14.32
Hired labor	23.82
Land rent	133.37
Stock/quota lease	59.63
Machinery leases	0.09
Operating interest	24.58
Miscellaneous	1.42
Total direct expenses per acre	853.85
Return over direct exp per acre	21.32
<b>Overhead Expenses</b>	
Custom hire	4.86
Hired labor	54.66
Machinery leases	22.26
Building leases	0.73
Farm insurance	7.56
Utilities	8.84
Dues & professional fees	3.76
Interest	8.79
Mach & bldg depreciation	87.59
Miscellaneous	5.41
Total overhead expenses per acre	204.45
Total dir & ovhd expenses per acre	1,058.30
Net return per acre	-183.13
Government payments	0.60
Net return with govt pmts	-182.53
Labor & management charge	89.75
Net return over lbr & mgt	-272.27
<b>Cost of Production</b>	
Total direct expense per ton	35.12
Total dir & ovhd exp per ton	43.53
Less govt & other income	42.57
With labor & management	46.26
Net value per unit	35.06
Machinery cost per acre	307.84
Est. labor hours per acre	4.42

**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education Program**  
**State Report, 2018**  
**(Farms Sorted By Net Return)**

**Sunflowers on Owned Land**

	<u>Avg. Of All Farms</u>
Number of farms	6
Acres	115.83
Yield per acre (cwt.)	21.44
Operators share of yield %	100.00
Value per cwt.	16.64
Total product return per acre	356.79
Gross return per acre	356.79
<b>Direct Expenses</b>	
Seed and plants	39.10
Fertilizer	36.45
Crop chemicals	32.45
Crop insurance	14.65
Drying expense	4.21
Fuel & oil	12.23
Repairs	16.23
Custom hire	4.30
Operating interest	10.44
Miscellaneous	1.45
Total direct expenses per acre	171.51
Return over direct exp per acre	185.28
<b>Overhead Expenses</b>	
Hired labor	3.10
Machinery leases	1.16
RE & pers. property taxes	14.10
Farm insurance	4.87
Utilities	3.96
Dues & professional fees	1.22
Interest	26.86
Mach & bldg depreciation	31.67
Miscellaneous	3.89
Total overhead expenses per acre	90.81
Total dir & ovhd expenses per acre	262.33
Net return per acre	94.46
Government payments	10.88
Net return with govt pmts	105.34
Labor & management charge	24.90
Net return over lbr & mgt	80.44
<b>Cost of Production</b>	
Total direct expense per cwt.	8.00
Total dir & ovhd exp per cwt.	12.23
Less govt & other income	11.73
With labor & management	12.89
Net value per unit	16.64
Machinery cost per acre	69.04
Est. labor hours per acre	1.11

**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education Program**  
**State Report, 2018**  
**(Farms Sorted By Net Return)**

**Sunflowers on Cash Rent**

	<b>Avg. Of All Farms</b>
Number of farms	22
Acres	409.96
Yield per acre (cwt.)	21.21
Operators share of yield %	100.00
Value per cwt.	17.88
Total product return per acre	379.25
Crop insurance per acre	0.63
Other crop income per acre	1.66
Gross return per acre	381.54
<b>Direct Expenses</b>	
Seed and plants	36.26
Fertilizer	39.72
Crop chemicals	40.26
Crop insurance	13.26
Fuel & oil	14.02
Repairs	20.25
Custom hire	10.26
Land rent	65.95
Machinery leases	1.70
Operating interest	6.28
Miscellaneous	0.70
Total direct expenses per acre	248.66
Return over direct exp per acre	132.87
<b>Overhead Expenses</b>	
Custom hire	2.23
Hired labor	8.04
Machinery leases	2.07
Building leases	1.10
Farm insurance	4.11
Utilities	2.78
Dues & professional fees	1.49
Interest	3.27
Mach & bldg depreciation	25.20
Miscellaneous	3.71
Total overhead expenses per acre	53.99
Total dir & ovhd expenses per acre	302.65
Net return per acre	78.88
Government payments	11.12
Net return with govt pmts	90.00
Labor & management charge	22.81
Net return over lbr & mgt	67.19
<b>Cost of Production</b>	
Total direct expense per cwt.	11.73
Total dir & ovhd exp per cwt.	14.27
Less govt & other income	13.64
With labor & management	14.72
Net value per unit	17.88
Machinery cost per acre	76.45
Est. labor hours per acre	1.11

**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education Program**  
**State Report, 2018**  
**(Farms Sorted By Net Return)**

**Wheat, Durum on Owned Land**

	<u>Avg. Of All Farms</u>
Number of farms	7
Acres	242.79
Yield per acre (bu.)	48.23
Operators share of yield %	100.00
Value per bu.	5.66
Total product return per acre	272.81
Hedging gains/losses per acre	0.00
Crop insurance per acre	56.13
Other crop income per acre	18.32
Gross return per acre	347.26
<b>Direct Expenses</b>	
Seed and plants	18.85
Fertilizer	50.58
Crop chemicals	44.73
Crop insurance	15.38
Fuel & oil	11.91
Repairs	19.87
Custom hire	12.18
Hired labor	2.41
Operating interest	6.41
Miscellaneous	0.25
Total direct expenses per acre	182.56
Return over direct exp per acre	164.70
<b>Overhead Expenses</b>	
Custom hire	0.31
Hired labor	3.50
Machinery leases	0.71
RE & pers. property taxes	5.40
Farm insurance	5.06
Utilities	2.91
Dues & professional fees	2.01
Interest	23.33
Mach & bldg depreciation	31.31
Miscellaneous	3.31
Total overhead expenses per acre	77.85
Total dir & ovhd expenses per acre	260.42
Net return per acre	86.85
Government payments	13.91
Net return with govt pmts	100.76
Labor & management charge	21.03
Net return over lbr & mgt	79.72
<b>Cost of Production</b>	
Total direct expense per bu.	3.79
Total dir & ovhd exp per bu.	5.40
Less govt & other income	3.57
With labor & management	4.00
Net value per unit	5.66
Machinery cost per acre	77.36
Est. labor hours per acre	0.85

**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education Program**  
**State Report, 2018**  
**(Farms Sorted By Net Return)**

**Wheat, Durum on Cash Rent**

	<u>Avg. Of All Farms</u>
Number of farms	15
Acres	570.91
Yield per acre (bu.)	53.38
Operators share of yield %	100.00
Value per bu.	5.42
Other product return per acre	2.64
Total product return per acre	291.83
Crop insurance per acre	10.60
Other crop income per acre	8.02
Gross return per acre	310.45
<b>Direct Expenses</b>	
Seed and plants	20.01
Fertilizer	48.70
Crop chemicals	38.15
Crop insurance	12.26
Fuel & oil	12.74
Repairs	21.17
Custom hire	5.59
Hired labor	0.75
Land rent	52.31
Machinery leases	1.66
Operating interest	6.70
Miscellaneous	0.50
Total direct expenses per acre	220.55
Return over direct exp per acre	89.90
<b>Overhead Expenses</b>	
Custom hire	2.23
Hired labor	8.36
Machinery leases	1.42
Farm insurance	4.42
Utilities	2.84
Dues & professional fees	3.16
Interest	4.29
Mach & bldg depreciation	28.58
Miscellaneous	3.31
Total overhead expenses per acre	58.62
Total dir & ovhd expenses per acre	279.18
Net return per acre	31.27
Government payments	16.56
Net return with govt pmts	47.84
Labor & management charge	21.01
Net return over lbr & mgt	26.82
<b>Cost of Production</b>	
Total direct expense per bu.	4.13
Total dir & ovhd exp per bu.	5.23
Less govt & other income	4.52
With labor & management	4.92
Net value per unit	5.42
Machinery cost per acre	73.36
Est. labor hours per acre	0.90

**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education Program**  
**State Report, 2018**  
**(Farms Sorted By Net Return)**

**Wheat, Spring on Owned Land**

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	102	20	21	21
Acres	319.47	265.90	248.87	289.39
Yield per acre (bu.)	55.73	50.67	58.32	64.19
Operators share of yield %	100.00	100.00	100.00	100.00
Value per bu.	5.23	5.37	5.23	5.27
Other product return per acre	0.55	0.06	0.12	0.47
Total product return per acre	291.81	271.91	305.35	338.88
Hedging gains/losses per acre	0.16	-	0.38	0.51
Crop insurance per acre	5.63	8.45	5.00	-
Other crop income per acre	9.84	10.12	11.07	14.32
Gross return per acre	307.44	290.48	321.80	353.71
<b>Direct Expenses</b>				
Seed and plants	18.03	24.03	20.91	15.03
Fertilizer	54.55	70.82	53.79	50.57
Crop chemicals	31.58	37.55	34.23	31.74
Crop insurance	16.41	17.22	18.67	15.75
Fuel & oil	11.98	13.57	12.63	12.18
Repairs	19.47	25.96	22.95	16.91
Custom hire	4.65	4.39	7.17	2.34
Hired labor	0.54	0.34	1.36	-
Machinery leases	0.64	1.52	2.45	-
Operating interest	4.70	7.47	5.48	2.85
Miscellaneous	1.63	1.62	2.71	0.68
Total direct expenses per acre	164.18	204.49	182.36	148.06
Return over direct exp per acre	143.27	85.99	139.44	205.65
<b>Overhead Expenses</b>				
Custom hire	0.66	0.52	0.94	0.23
Hired labor	5.75	6.29	9.29	4.03
Machinery leases	1.45	3.95	0.61	0.73
Building leases	0.27	0.00	0.39	0.66
RE & pers. property taxes	8.14	12.70	8.57	8.20
Farm insurance	5.36	7.28	6.20	4.43
Utilities	3.25	4.50	4.22	2.70
Dues & professional fees	0.84	1.06	1.39	0.29
Interest	25.75	54.55	26.88	9.44
Mach & bldg depreciation	34.33	39.80	32.35	32.23
Miscellaneous	4.67	8.38	3.16	2.62
Total overhead expenses per acre	90.48	139.03	93.99	65.58
Total dir & ovhd expenses per acre	254.66	343.52	276.34	213.64
Net return per acre	52.79	-53.04	45.46	140.07
Government payments	16.47	17.68	20.55	20.72
Net return with govt pmts	69.26	-35.36	66.00	160.79
Labor & management charge	23.40	23.93	23.75	24.87
Net return over lbr & mgt	45.86	-59.29	42.25	135.92
<b>Cost of Production</b>				
Total direct expense per bu.	2.95	4.04	3.13	2.31
Total dir & ovhd exp per bu.	4.57	6.78	4.74	3.33
Less govt & other income	3.98	6.06	4.10	2.77
With labor & management	4.40	6.54	4.51	3.15
Net value per unit	5.23	5.37	5.24	5.28
Machinery cost per acre	72.92	89.39	78.95	64.90
Est. labor hours per acre	1.15	1.10	1.31	1.22

**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education Program**  
**State Report, 2018**  
**(Farms Sorted By Net Return)**

**Wheat, Spring on Cash Rent**

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	153	30	30	31
Acres	686.23	480.07	739.68	643.49
Yield per acre (bu.)	55.79	49.14	53.48	64.22
Operators share of yield %	100.00	100.00	100.00	100.00
Value per bu.	5.27	5.50	5.22	5.28
Other product return per acre	0.38	-	-	0.72
Total product return per acre	294.56	270.35	278.93	340.05
Hedging gains/losses per acre	0.74	1.49	-	1.31
Crop insurance per acre	8.30	8.55	6.98	2.02
Other crop income per acre	9.83	9.26	9.85	13.35
Gross return per acre	313.42	289.66	295.76	356.74
<b>Direct Expenses</b>				
Seed and plants	17.92	19.00	20.39	16.18
Fertilizer	57.08	72.66	51.98	51.53
Crop chemicals	32.03	27.72	31.97	33.75
Crop insurance	15.63	14.84	15.86	14.08
Fuel & oil	12.21	14.41	11.36	12.69
Repairs	20.85	25.95	18.16	19.50
Custom hire	4.72	7.59	5.93	2.74
Hired labor	0.80	-	1.39	-
Land rent	58.54	90.87	57.46	50.39
Machinery leases	1.31	0.25	1.12	0.14
Operating interest	5.98	6.46	5.59	4.32
Miscellaneous	1.67	1.44	1.46	1.32
Total direct expenses per acre	228.74	281.19	222.65	206.63
Return over direct exp per acre	84.69	8.47	73.11	150.11
<b>Overhead Expenses</b>				
Custom hire	0.96	0.67	0.78	1.49
Hired labor	7.64	12.18	7.22	5.33
Machinery leases	3.12	7.38	2.50	2.23
Building leases	0.46	0.51	0.35	0.48
Farm insurance	4.24	5.26	4.63	3.11
Utilities	2.98	4.21	3.41	2.25
Dues & professional fees	1.15	2.68	1.14	0.80
Interest	3.20	4.69	2.74	2.45
Mach & bldg depreciation	27.46	27.02	25.14	19.99
Miscellaneous	3.53	5.91	4.25	2.43
Total overhead expenses per acre	54.75	70.50	52.15	40.56
Total dir & ovhd expenses per acre	283.48	351.69	274.81	247.18
Net return per acre	29.94	-62.03	20.96	109.55
Government payments	15.14	13.79	11.34	19.83
Net return with govt pmts	45.08	-48.24	32.30	129.38
Labor & management charge	22.87	22.69	20.65	25.80
Net return over lbr & mgt	22.21	-70.93	11.65	103.59
<b>Cost of Production</b>				
Total direct expense per bu.	4.10	5.72	4.16	3.22
Total dir & ovhd exp per bu.	5.08	7.16	5.14	3.85
Less govt & other income	4.46	6.48	4.61	3.27
With labor & management	4.87	6.95	5.00	3.67
Net value per unit	5.29	5.53	5.22	5.30
Machinery cost per acre	71.55	85.88	65.84	59.64
Est. labor hours per acre	1.06	1.12	1.05	1.05

**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education Program**  
**State Report, 2018**  
**(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	293.06	148.48	249.11	186.61
Yield per acre (bu.)	58.40	43.52	54.63	61.09
Operators share of yield %	71.75	60.48	67.96	75.23
Value per bu.	5.26	5.13	5.25	5.31
Other product return per acre	0.11	1.13	-	-
Total product return per acre	220.56	136.23	194.84	244.13
Hedging gains/losses per acre	0.38	-	-	3.00
Crop insurance per acre	0.89	-	-	-
Other crop income per acre	7.60	9.40	8.07	8.08
Gross return per acre	229.44	145.64	202.92	255.21
<b>Direct Expenses</b>				
Seed and plants	13.77	11.72	8.95	15.39
Fertilizer	54.90	48.91	51.04	49.02
Crop chemicals	31.76	18.48	30.12	30.75
Crop insurance	12.60	7.49	10.42	15.24
Fuel & oil	11.79	15.51	11.16	9.81
Repairs	20.48	30.44	18.49	16.23
Custom hire	10.36	5.82	19.81	5.43
Operating interest	2.86	2.87	2.73	1.78
Miscellaneous	1.53	-	1.72	2.45
Total direct expenses per acre	160.05	141.24	154.43	146.11
Return over direct exp per acre	69.39	4.39	48.48	109.10
<b>Overhead Expenses</b>				
Custom hire	0.58	0.00	2.77	0.49
Hired labor	4.58	3.49	13.12	2.82
Machinery leases	3.41	0.17	0.54	3.20
Building leases	0.79	-	-	2.25
Farm insurance	4.22	5.53	4.54	5.27
Utilities	2.87	3.26	3.72	3.68
Dues & professional fees	0.44	0.75	0.50	0.39
Interest	2.37	1.84	0.83	2.80
Mach & bldg depreciation	27.49	28.00	26.06	12.67
Miscellaneous	3.06	2.01	3.82	1.17
Total overhead expenses per acre	49.78	45.04	55.89	34.73
Total dir & ovhd expenses per acre	209.84	186.29	210.32	180.83
Net return per acre	19.60	-40.65	-7.40	74.38
Government payments	14.02	9.10	11.67	16.33
Net return with govt pmts	33.62	-31.56	4.27	90.70
Labor & management charge	21.00	19.10	24.93	18.21
Net return over lbr & mgt	12.63	-50.65	-20.66	72.49
<b>Cost of Production</b>				
Total direct expense per bu.	3.82	5.37	4.16	3.18
Total dir & ovhd exp per bu.	5.01	7.08	5.66	3.93
Less govt & other income	4.46	6.33	5.13	3.34
With labor & management	4.96	7.06	5.80	3.73
Net value per unit	5.27	5.13	5.25	5.38
Machinery cost per acre	74.81	81.60	77.45	50.11
Est. labor hours per acre	1.11	1.40	1.60	0.93

## 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 Program**  
**State Report, 2018**  
**(Farms Sorted By Net Return)**

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

	<u>Avg. Of All Farms</u>		<u>Low 20%</u>		<u>40 - 60%</u>		<u>High 20%</u>	
	36		7		7		8	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
Number of farms								
Beef Calves sold (lb)	32.81	53.21	21.95	35.29	45.63	75.13	31.88	50.21
Transferred out (lb)	67.19	108.10	78.05	109.20	54.37	91.38	68.12	105.86
Cull sales		24.39		24.05		22.75		21.21
Government payments		2.87		3.88		1.67		1.61
Other income		0.28		-		0.26		0.08
Purchased		-21.97		-50.69		-21.64		-21.97
Transferred in		-34.81		-15.92		-31.93		-35.07
Inventory change		12.88		9.16		4.46		32.53
Gross margin		144.93		114.96		142.07		154.45
<b>Direct Expenses</b>								
Protein Vit Minerals (lb.)	107.38	4.97	20.75	3.25	11.70	4.24	3.80	1.69
Creep / Starter (lb.)	10.27	1.07	13.78	0.55	-	-	28.83	3.23
Corn Silage (lb.)	417.48	6.18	255.22	3.83	259.74	3.44	412.91	5.16
Hay, Alfalfa (lb.)	67.06	2.49	16.37	0.44	67.35	3.28	154.04	5.53
Hay, Grass (lb.)	948.48	25.78	1,615.53	42.55	1,061.31	38.43	901.34	20.01
Pasture (aum)	1.37	25.50	1.47	25.48	1.53	30.07	1.17	18.29
Peas, Field (lb.)	0.04	0.26	0.43	3.04	-	-	-	-
Other feed stuffs (lb)	107.83	6.97	142.55	7.02	43.40	6.13	19.46	5.42
Veterinary		5.70		3.88		5.40		6.86
Supplies		5.93		8.47		5.69		3.06
Fuel & oil		4.80		8.08		3.42		3.79
Repairs		8.88		10.91		6.95		8.36
Custom hire		1.11		2.64		0.62		0.02
Total direct expenses		99.63		120.13		107.66		81.42
Return over direct expense		45.30		-5.18		34.41		73.04
<b>Overhead Expenses</b>								
Hired labor		2.27		0.60		0.56		2.54
Farm insurance		2.75		5.26		2.60		1.55
Utilities		2.30		4.32		1.94		1.28
Interest		2.94		4.77		4.11		1.13
Mach & bldg depreciation		9.04		16.53		5.98		6.42
Miscellaneous		3.67		4.22		3.66		2.88
Total overhead expenses		22.97		35.71		18.86		15.81
Total dir & ovhd expenses		122.60		155.84		126.52		97.22
Net return		22.33		-40.88		15.56		57.23
Labor & management charge		13.81		19.53		11.95		13.88
Net return over lbr & mgt		8.52		-60.41		3.61		43.35
<b>Cost of Production Per Cwt. Produced</b>								
Total direct expense per unit		99.63		120.13		107.66		81.42
Total dir & ovhd expense per unit		122.60		155.84		126.52		97.22
With other revenue adjustments		139.21		185.28		151.22		98.92
With labor and management		153.03		204.81		163.16		112.80
Est. labor hours per unit		1.02		1.60		0.91		1.07
<b>Other Information</b>								
Number of cows		176.8		87.6		197.5		172.2
Pregnancy percentage		96.8		97.5		98.1		93.8
Pregnancy loss percentage		2.6		3.6		0.5		4.2
Culling percentage		15.3		12.7		15.2		14.0
Calving percentage		94.3		94.0		97.6		89.8
Weaning percentage		89.6		89.5		95.2		84.6
Calves sold per cow		0.94		0.92		0.92		0.98
Calf death loss percent		4.1		4.7		4.0		6.0
Cow death loss percent		1.4		2.3		2.2		0.9
Average weaning weight		563		537		535		593
Lb. weaned/exposed female		504		481		509		502
Feed cost per cow		387.12		407.63		430.09		343.58
Avg wgt/ Beef Calves sold		584		526		587		609
Avg price / cwt.		162.16		160.78		164.64		157.50

**Livestock Enterprise Analysis**  
**North Dakota Farm Business Management Education Program**  
**State Report, 2018**  
**(Farms Sorted By Net Return)**

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

	<u>Avg. Of All Farms</u>		<u>Low 20%</u>		<u>40 - 60%</u>		<u>High 20%</u>	
	36		7		7		8	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
Number of farms								
Beef Calves sold (lb)	173.5	281.36	103.8	166.97	229.3	377.58	184.7	290.83
Transferred out (lb)	355.3	571.58	369.3	516.66	273.2	459.25	394.5	613.10
Cull sales		128.94		113.78		114.33		122.87
Government payments		15.15		18.34		8.37		9.31
Other income		1.49		-		1.30		0.44
Purchased		-116.19		-239.85		-108.77		-127.24
Transferred in		184.06		-75.33		460.47		-203.14
Inventory change		68.08		43.34		22.43		188.40
Gross margin		766.36		543.91		714.01		894.56
<b>Direct Expenses</b>								
Protein Vit Minerals (lb.)	567.8	26.28	98.2	15.38	58.8	21.29	22.0	9.78
Creep / Starter (lb.)	54.3	5.63	65.2	2.61	-	-	167.0	18.70
Corn Silage (lb.)	2,207.5	32.66	1,207.5	18.11	1,305.4	17.29	2,391.5	29.89
Hay, Alfalfa (lb.)	354.6	13.18	77.4	2.06	338.5	16.49	892.2	32.00
Hay, Grass (lb.)	5,015.2	136.33	7,643.7	201.33	5,333.7	193.14	5,220.3	115.91
Pasture (aum)	7.3	134.81	7.0	120.55	7.7	151.10	6.8	105.91
Other feed stuffs (lb)	570.4	38.22	676.5	47.59	218.1	30.80	112.7	31.38
Veterinary		30.15		18.36		27.12		39.71
Supplies		31.38		40.07		28.62		17.71
Fuel & oil		25.38		38.23		17.21		21.97
Repairs		46.95		51.61		34.93		48.44
Custom hire		5.85		12.50		3.09		0.14
Total direct expenses		526.82		568.40		541.06		471.55
Return over direct expense		239.54		-24.49		172.96		423.01
<b>Overhead Expenses</b>								
Hired labor		11.99		2.86		2.84		14.72
Farm insurance		14.57		24.87		13.08		8.96
Utilities		12.16		20.44		9.77		7.41
Interest		15.57		22.58		20.66		6.54
Mach & bldg depreciation		47.81		78.21		30.05		37.21
Miscellaneous		19.39		19.99		18.39		16.69
Total overhead expenses		121.47		168.95		94.77		91.54
Total dir & ovhd expenses		648.29		737.35		635.83		563.10
Net return		118.07		-193.44		78.18		331.47
Labor & management charge		73.03		92.40		60.06		80.41
Net return over lbr & mgt		45.04		-285.84		18.13		251.05
<b>Cost of Production Per Cwt. Produced</b>								
Total direct expense per unit		99.63		120.13		107.66		81.42
Total dir & ovhd expense per unit		122.60		155.84		126.52		97.22
With other revenue adjustments		139.21		185.28		151.22		98.92
With labor and management		153.03		204.81		163.16		112.80
Est. labor hours per unit		5.41		7.55		4.57		6.18
<b>Other Information</b>								
Number of cows		176.8		87.6		197.5		172.2
Pregnancy percentage		96.8		97.5		98.1		93.8
Pregnancy loss percentage		2.6		3.6		0.5		4.2
Culling percentage		15.3		12.7		15.2		14.0
Calving percentage		94.3		94.0		97.6		89.8
Weaning percentage		89.6		89.5		95.2		84.6
Calves sold per cow		0.94		0.92		0.92		0.98
Calf death loss percent		4.1		4.7		4.0		6.0
Cow death loss percent		1.4		2.3		2.2		0.9
Average weaning weight		563		537		535		593
Lb. weaned/exposed female		504		481		509		502
Feed cost per cow		387.12		407.63		430.09		343.58
Avg wgt/ Beef Calves sold		584		526		587		609
Avg price / cwt.		162.16		160.78		164.64		157.50

**Livestock Enterprise Analysis**  
**North Dakota Farm Business Management Education Program State Report,**  
**2018**  
**(Farms Sorted By Net Return)**

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

	<b>Avg. Of All Farms</b>		<b>Low 20%</b>		<b>40 - 60%</b>		<b>High 20%</b>	
	30		6		6		6	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
Number of farms								
Beef Calves sold (lb)	80.55	118.42	79.32	119.21	76.35	114.02	99.05	146.30
Transferred out (lb)	7.45	11.10	5.57	9.79	9.03	14.21	-	-
Cull sales (lb)		19.15		13.75		25.29		11.10
Insurance income		0.58		-		-		-
Government payments		1.51		-		3.10		2.64
Other income		0.25		0.27		0.77		0.12
Purchased (lb)		-18.45		-25.67		-14.88		-3.61
Transferred in (lb)		-13.83		-14.47		-25.52		-2.37
Inventory change (lb)		26.14		17.99		27.47		10.57
Gross margin		144.86		120.86		144.45		164.75
<b>Direct Expenses</b>								
Protein Vit Minerals (lb.)	29.00	11.78	7.88	6.92	24.31	14.60	46.16	18.96
Complete Ration (lb.)	111.53	3.05	-	-	74.20	3.72	-	-
Corn (bu.)	1.10	3.36	2.05	6.13	0.25	0.81	1.90	5.81
Corn Silage (lb.)	457.70	6.38	957.37	13.66	97.03	1.46	356.69	4.65
Hay, Alfalfa (lb.)	191.00	6.47	69.75	2.79	167.05	4.58	152.87	5.03
Hay, Grass (lb.)	944.57	25.23	1,418.58	43.61	1,145.38	29.79	631.31	16.99
Pasture (aum)	1.19	21.77	1.46	27.34	1.30	21.26	1.04	19.63
Other feed stuffs (lb)	191.28	5.09	88.98	2.47	138.75	4.49	199.78	5.45
Breeding fees		1.05		-		0.77		3.06
Veterinary		5.90		5.91		6.63		4.35
Supplies		4.60		4.73		5.36		3.28
Fuel & oil		5.26		6.39		5.13		4.17
Repairs		6.39		9.02		5.15		3.83
Custom hire		2.75		3.31		2.15		2.42
Operating interest		1.98		2.20		2.46		1.89
Total direct expenses		111.05		134.49		108.38		99.52
Return over direct expense		33.81		-13.62		36.08		65.23
<b>Overhead Expenses</b>								
Utilities		2.56		1.93		3.50		2.40
Interest		2.84		2.41		4.19		2.45
Mach & bldg depreciation		6.33		7.00		4.62		5.79
Miscellaneous		5.44		7.25		8.04		3.61
Total overhead expenses		17.16		18.59		20.35		14.25
Total dir & ovhd expenses		128.21		153.07		128.73		113.77
Net return		16.65		-32.21		15.72		50.98
Labor & management charge		14.57		12.56		15.84		10.51
Net return over lbr & mgt		2.08		-44.77		-0.12		40.47
<b>Cost of Production Per Cwt. Produced</b>								
Total direct expense per unit		111.05		134.49		108.38		99.52
Total dir & ovhd expense per unit		128.21		153.07		128.73		113.77
With other revenue adjustments		131.94		182.44		137.48		96.67
With labor and management		146.51		195.00		153.33		107.18
Est. labor hours per unit		0.95		0.84		1.30		0.65
<b>Other Information</b>								
Number of cows		132.5		135.2		153.2		171.7
Pregnancy percentage		97.4		93.9		95.6		98.5
Pregnancy loss percentage		4.1		8.1		1.6		1.2
Culling percentage		11.5		8.3		14.3		6.8
Calving percentage		93.4		86.3		94.1		97.4
Weaning percentage		89.2		82.2		90.3		93.0
Calves sold per cow		0.74		0.74		0.73		0.79
Calf death loss percent		4.0		5.4		4.8		2.2
Cow death loss percent		1.0		0.9		1.4		0.4
Average weaning weight		537		496		553		529
Lb. weaned/exposed female		479		408		499		492
Feed cost per cow		480.81		556.76		430.90		466.59
Avg wgt/ Beef Calves sold		692		630		635		760
Avg price / cwt.		147.01		150.30		149.32		147.71

**Livestock Enterprise Analysis**  
**North Dakota Farm Business Management Education Program State**  
**Report, 2018**  
**(Farms Sorted By Net Return)**

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

	<b>Avg. Of All Farms</b>		<b>Low 20%</b>		<b>40 - 60%</b>		<b>High 20%</b>	
	30		6		6		6	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
Number of farms								
Beef Calves sold (lb)	465.9	684.88	429.1	644.85	407.6	608.63	603.9	892.01
Transferred out (lb)	43.1	64.22	30.1	52.97	48.2	75.85	-	-
Cull sales (lb)		110.73		74.35		135.01		67.70
Insurance income		3.33		-		-		-
Government payments		8.75		-		16.57		16.08
Other income		1.44		1.48		4.09		0.76
Purchased (lb)		-106.72		-138.86		-79.43		-22.04
Transferred in (lb)		-79.99		-78.30		-136.24		-14.47
Inventory change (lb)		151.18		97.30		146.63		64.44
Gross margin		837.84		653.80		771.11		1,004.49
<b>Direct Expenses</b>								
Protein Vit Minerals (lb.)	167.7	68.15	42.6	37.45	129.8	77.95	281.5	115.61
Complete Ration (lb.)	645.0	17.62	-	-	396.1	19.84	-	-
Corn (bu.)	6.4	19.46	11.1	33.14	1.3	4.35	11.6	35.43
Corn Silage (lb.)	2,647.2	36.90	5,178.8	73.91	518.0	7.77	2,174.8	28.35
Hay, Alfalfa (lb.)	1,104.7	37.42	377.3	15.09	891.7	24.47	932.0	30.68
Hay, Grass (lb.)	5,463.1	145.92	7,673.7	235.93	6,114.1	159.05	3,849.1	103.57
Pasture (aum)	6.9	125.91	7.9	147.87	6.9	113.50	6.3	119.70
Stover (lb.)	285.9	6.55	239.2	7.15	-	-	788.8	17.77
Other feed stuffs (lb)	820.4	22.88	242.1	6.21	740.7	23.97	429.2	15.49
Breeding fees		6.05		-		4.13		18.67
Veterinary		34.12		31.98		35.39		26.51
Supplies		38.02		37.50		41.72		31.54
Fuel & oil		30.43		34.57		27.37		25.40
Repairs		36.95		48.80		27.51		23.34
Custom hire		15.91		17.89		11.50		14.75
Total direct expenses		642.27		727.50		578.52		606.80
Return over direct expense		195.57		-73.70		192.58		397.68
<b>Overhead Expenses</b>								
Utilities		14.80		10.44		18.67		14.61
Interest		16.43		13.01		22.39		14.95
Mach & bldg depreciation		36.59		37.84		24.68		35.31
Miscellaneous		31.45		39.24		42.91		21.99
Total overhead expenses		99.27		100.54		108.64		86.86
Total dir & ovhd expenses		741.55		828.04		687.17		693.67
Net return		96.30		-174.24		83.94		310.82
Labor & management charge		84.27		67.95		84.58		64.09
Net return over lbr & mgt		12.03		-242.19		-0.64		246.73
<b>Cost of Production Per Cwt. Produced</b>								
Total direct expense per unit		111.05		134.49		108.38		99.52
Total dir & ovhd expense per unit		128.21		153.07		128.73		113.77
With other revenue adjustments		131.94		182.44		137.48		96.67
With labor and management		146.51		195.00		153.33		107.18
Est. labor hours per unit		5.49		4.53		6.92		3.97
<b>Other Information</b>								
Number of cows		132.5		135.2		153.2		171.7
Pregnancy percentage		97.4		93.9		95.6		98.5
Pregnancy loss percentage		4.1		8.1		1.6		1.2
Culling percentage		11.5		8.3		14.3		6.8
Calving percentage		93.4		86.3		94.1		97.4
Weaning percentage		89.2		82.2		90.3		93.0
Calves sold per cow		0.74		0.74		0.73		0.79
Calf death loss percent		4.0		5.4		4.8		2.2
Cow death loss percent		1.0		0.9		1.4		0.4
Average weaning weight		537		496		553		529
Lb. weaned/exposed female		479		408		499		492
Feed cost per cow		480.81		556.76		430.90		466.59
Avg wgt/ Beef Calves sold		692		630		635		760
Avg price / cwt.		147.01		150.30		149.32		147.71

**Livestock Enterprise Analysis**  
**North Dakota Farm Business Management Education Program**  
**State Report, 2018**  
**(Farms Sorted By Net Return)**

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

	<u>Avg. Of All Farms</u>	
Number of farms		20
	Quantity	Value
Beef Replace sold (hd)	0.28	393.38
Transferred out (hd)	0.75	1,021.41
Cull sales (hd)	0.01	17.82
Government payments		10.01
Other income		5.80
Purchased (hd)	0.09	-92.80
Transferred in (hd)	0.71	-658.32
Inventory change (hd)	-0.26	-207.26
Gross margin		490.03
<b>Direct Expenses</b>		
Protein Vit Minerals (lb.)	40.70	12.08
Complete Ration (lb.)	474.49	20.38
Barley (bu.)	0.50	1.47
Corn (bu.)	3.60	11.11
Corn Silage (lb.)	1,571.16	22.73
Hay, Alfalfa (lb.)	391.18	15.58
Hay, Grass (lb.)	2,354.52	68.74
Pasture (aum)	4.34	78.39
DDGS, dry (lb.)	67.05	4.24
Other feed stuffs (lb)	132.16	4.28
Breeding fees		6.85
Veterinary		18.90
Supplies		10.98
Fuel & oil		5.95
Repairs		9.59
Livestock leases		3.84
Marketing		5.53
Total direct expenses		300.64
Return over direct expense		189.39
<b>Overhead Expenses</b>		
Hired labor		6.56
Mach & bldg depreciation		13.33
Miscellaneous		17.77
Total overhead expenses		37.66
Total dir & ovhd expenses		338.30
Net return		151.73
Labor & management charge		20.16
Net return over lbr & mgt		131.56
Est. labor hours per unit		1.33
<b>Other Information</b>		
No. purchased or trans in		39
Number sold or trans out		50
Average number of head		48
Percentage death loss		1.4
Feed cost per average head		239.00
Feed cost/head sold/trans		232.80

**Livestock Enterprise Analysis**  
**North Dakota Farm Business Management Education Program**  
**State Report, 2018**  
**(Farms Sorted By Net Return)**

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

	<u>Avg. Of All Farms</u>	
Number of farms	20	
	Quantity	Value
Beef Replace sold (hd)	0.3	383.18
Transferred out (hd)	0.7	994.92
Cull sales (hd)	0.0	17.36
Government payments		9.75
Other income		5.65
Purchased (hd)	0.1	-90.40
Transferred in (hd)	0.7	-641.25
Inventory change (hd)	-0.3	-201.89
Gross margin		477.32
<b>Direct Expenses</b>		
Protein Vit Minerals (lb.)	39.6	11.77
Complete Ration (lb.)	462.2	19.85
Corn (bu.)	3.5	10.82
Corn Silage (lb.)	1,530.4	22.14
Hay, Alfalfa (lb.)	381.0	15.18
Hay, Grass (lb.)	2,293.4	66.96
Pasture (aum)	4.2	76.35
DDGS, dry (lb.)	65.3	4.13
Other feed stuffs (lb)	129.2	5.61
Breeding fees		6.67
Veterinary		18.41
Supplies		10.70
Fuel & oil		5.80
Repairs		9.34
Livestock leases		3.74
Marketing		5.38
Total direct expenses		292.84
Return over direct expense		184.48
<b>Overhead Expenses</b>		
Hired labor		6.39
Farm insurance		4.56
Dues & professional fees		2.76
Mach & bldg depreciation		12.98
Miscellaneous		9.98
Total overhead expenses		36.69
Total dir & ovhd expenses		329.53
Net return		147.79
Labor & management charge		19.64
Net return over lbr & mgt		128.15
Est. labor hours per unit		1.29
<b>Other Information</b>		
No. purchased or trans in		39
Number sold or trans out		50
Average number of head		48
Percentage death loss		1.4
Feed cost per average head		239.00
Feed cost/head sold/trans		232.80

**Livestock Enterprise Analysis**  
**North Dakota Farm Business Management Education Program**  
**State Report, 2018**  
**(Farms Sorted By Net Return)**

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

	<u>Avg. Of</u>	
	<u>All Farms</u>	
Number of farms	18	
	Quantity	Value
Backgnd Beef sold (lb)	328.29	499.19
Transferred out (lb)	94.31	135.93
Other income		3.90
Transferred in (lb)	-328.87	-516.06
Inventory change (lb)	4.28	-15.49
Gross margin		107.48
<b>Direct Expenses</b>		
Protein Vit Minerals (lb.)	71.93	5.89
Creep / Starter (lb.)	12.81	2.58
Complete Ration (lb.)	537.94	7.48
Corn (bu.)	1.42	4.34
Corn Silage (lb.)	517.29	6.92
Hay, Alfalfa (lb.)	83.90	3.00
Hay, Grass (lb.)	530.70	14.06
Hay (lb.)	34.87	1.22
Other feed stuffs (lb)	111.35	8.17
Veterinary		6.59
Supplies		4.09
Fuel & oil		3.17
Repairs		6.84
Livestock leases		2.82
Marketing		3.02
Total direct expenses		80.20
Return over direct expense		27.28
<b>Overhead Expenses</b>		
Farm insurance		1.67
Interest		1.52
Mach & bldg depreciation		5.91
Miscellaneous		5.04
Total overhead expenses		14.14
Total dir & ovhd expenses		94.34
Net return		13.14
Labor & management charge		10.47
Net return over lbr & mgt		2.67
<b>Cost of Production Per Cwt. Produced</b>		
Total direct expense per unit		143.84
Total dir & ovhd expense per unit		147.18
With other revenue adjustments		147.18
With labor and management		149.66
Est. labor hours per unit		0.78
<b>Other Information</b>		
No. purchased or trans in		101
Number sold or trans out		107
Percentage death loss		0.5
Avg. daily gain (lb.)		1.20
Lb. of conc / lb. of gain		8.26
Lb. of feed / lb. of gain		16.62
Feed cost per cwt. of gain		53.66
Feed cost per head		47.05
Avg wgt / Backgnd Beef sold		685
Avg sales price / cwt.		152.06

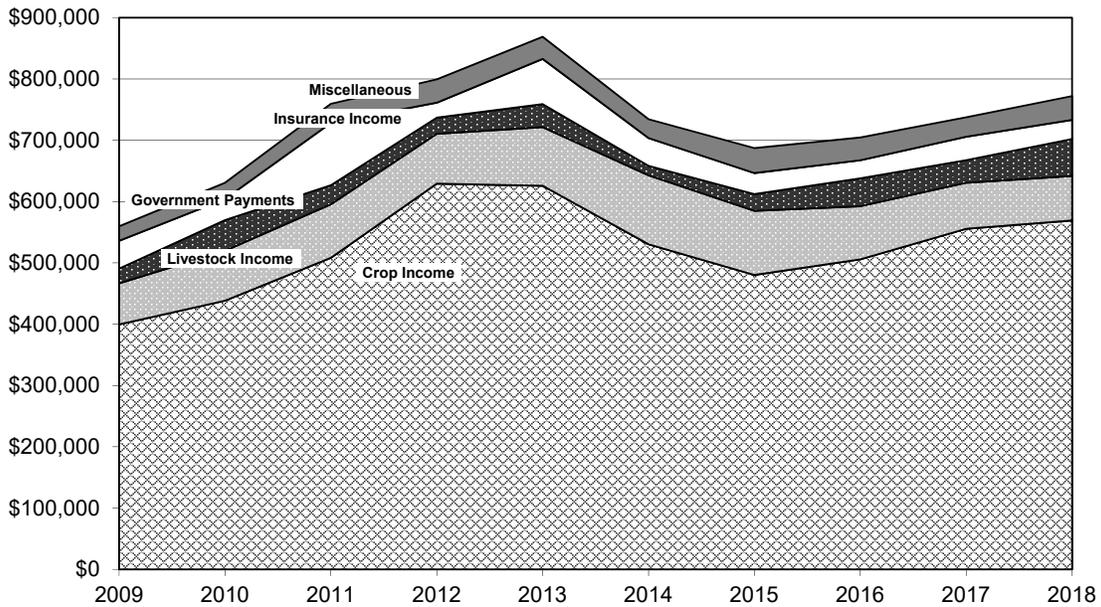
**Livestock Enterprise Analysis**  
**North Dakota Farm Business Management Education Program**  
**State Report, 2018**  
**(Farms Sorted By Net Return)**

**Beef Backgrounding -- Average Per Head**

	<u>Avg. Of All Farms</u>	
Number of farms	18	
	Quantity	Value
Backgnd Beef sold (lb)	287.9	437.73
Transferred out (lb)	82.7	119.19
Other income		3.42
Transferred in (lb)	-288.4	-452.52
Inventory change (lb)	3.8	-13.58
Gross margin		94.24
<b>Direct Expenses</b>		
Protein Vit Minerals (lb.)	63.1	5.16
Creep / Starter (lb.)	11.2	2.26
Complete Ration (lb.)	471.7	6.56
Corn (bu.)	1.2	3.80
Corn Silage (lb.)	453.6	6.07
Hay, Alfalfa (lb.)	73.6	2.63
Hay, Grass (lb.)	465.4	12.33
Hay (lb.)	30.6	1.07
Other feed stuffs (lb)	97.6	7.16
Veterinary		5.78
Supplies		3.59
Fuel & oil		2.78
Repairs		6.00
Livestock leases		2.48
Marketing		2.65
Total direct expenses		70.32
Return over direct expense		23.92
<b>Overhead Expenses</b>		
Farm insurance		1.46
Interest		1.34
Mach & bldg depreciation		5.18
Miscellaneous		4.42
Total overhead expenses		12.40
Total dir & ovhd expenses		82.72
Net return		11.52
Labor & management charge		9.18
Net return over lbr & mgt		2.34
<b>Cost of Production Per Cwt. Produced</b>		
Total direct expense per unit		143.84
Total dir & ovhd expense per unit		147.18
With other revenue adjustments		147.18
With labor and management		149.66
Est. labor hours per unit		0.69
<b>Other Information</b>		
No. purchased or trans in		101
Number sold or trans out		107
Percentage death loss		0.5
Avg. daily gain (lb.)		1.20
Lb. of conc / lb. of gain		8.26
Lb. of feed / lb. of gain		16.62
Feed cost per cwt. of gain		53.66
Feed cost per head		47.05
Avg wgt / Backgnd Beef sold		685
Avg sales price / cwt.		152.06

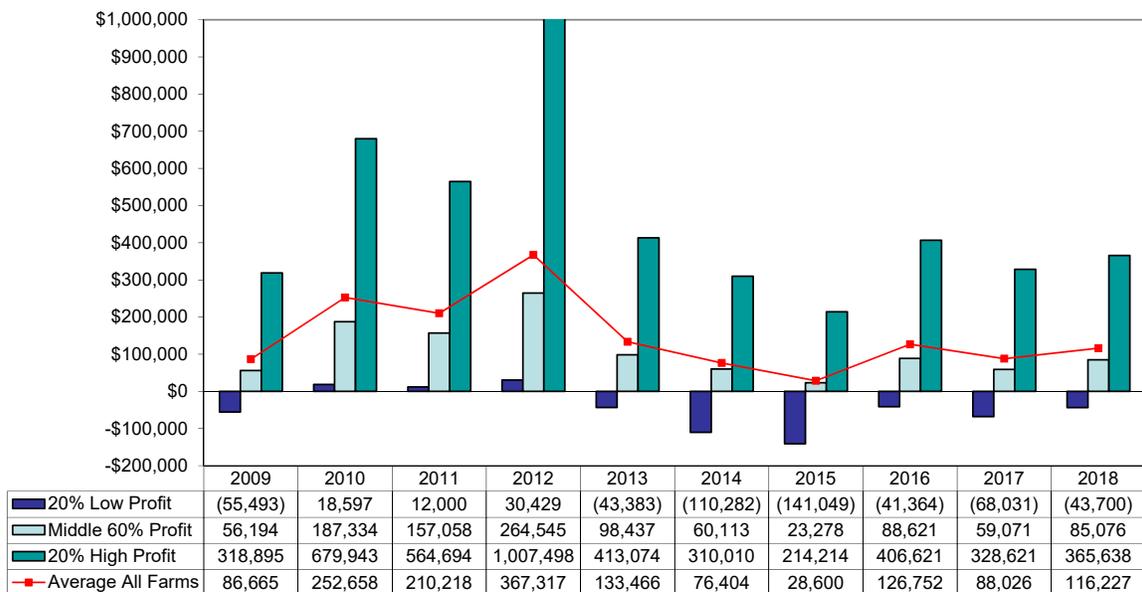
# Figure 1. Gross Cash Income Per Farm

N.D. Farm Business Management Education Program



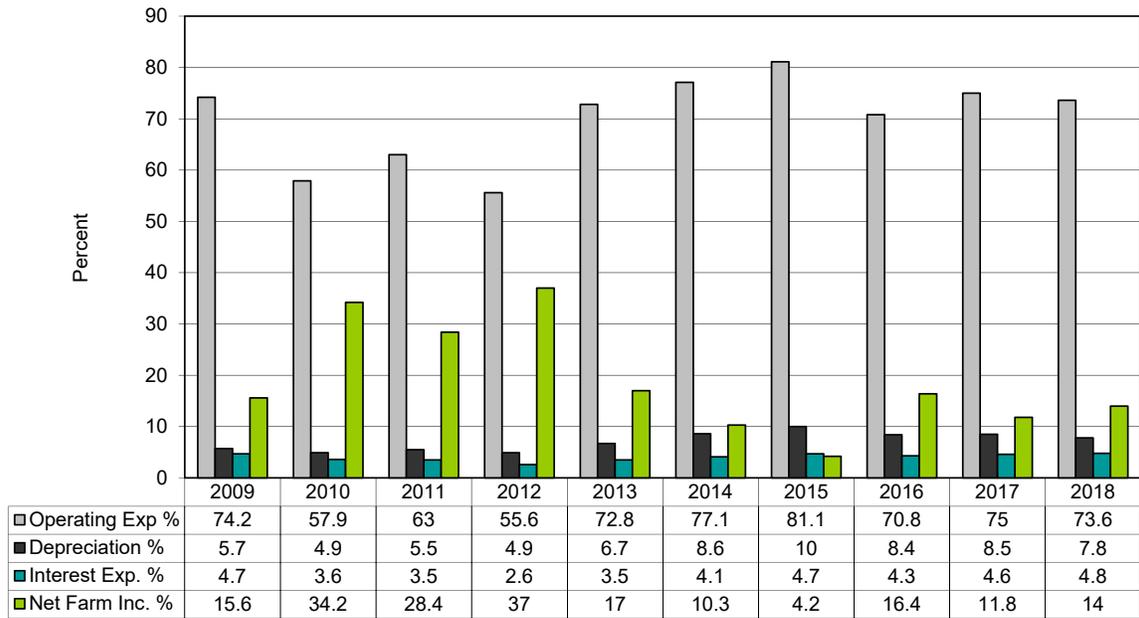
# Figure 2. Net Farm Income (Accrual) Per Farm

N.D. Farm Business Management Education Program



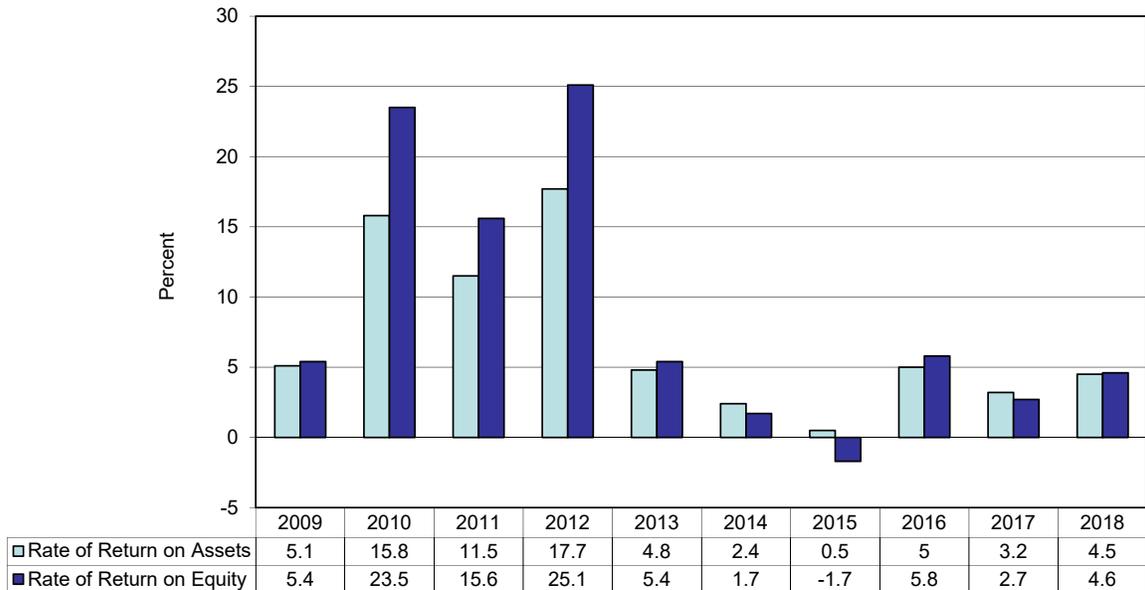
### Figure 3. Financial Efficiency Measures (As Percent of Gross Revenue)

N.D. Farm Business Management Education Program

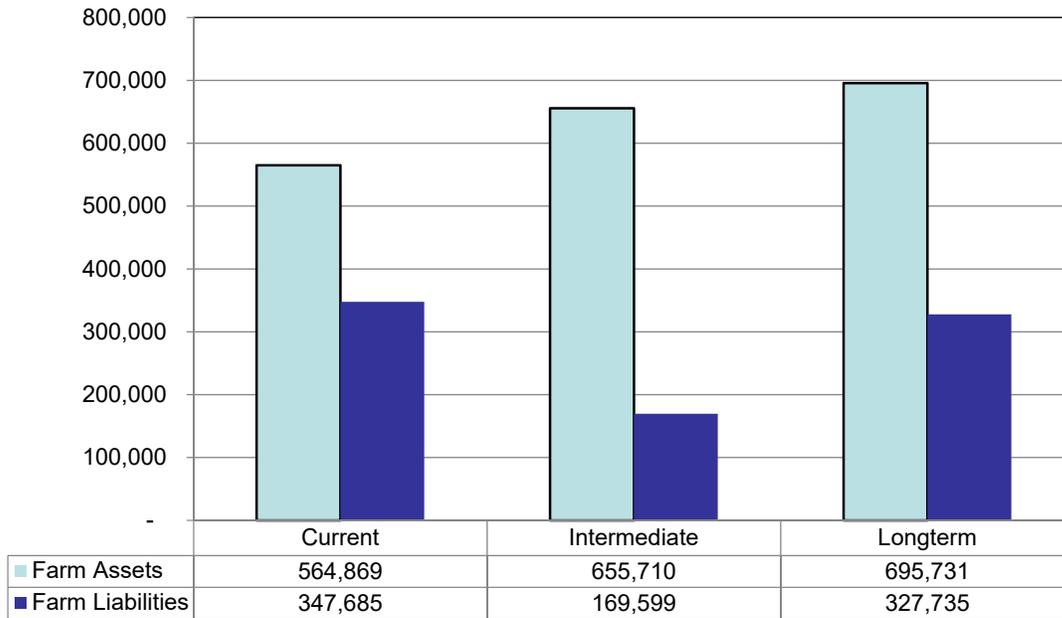


### Figure 4. Profitability Measures Per Farm

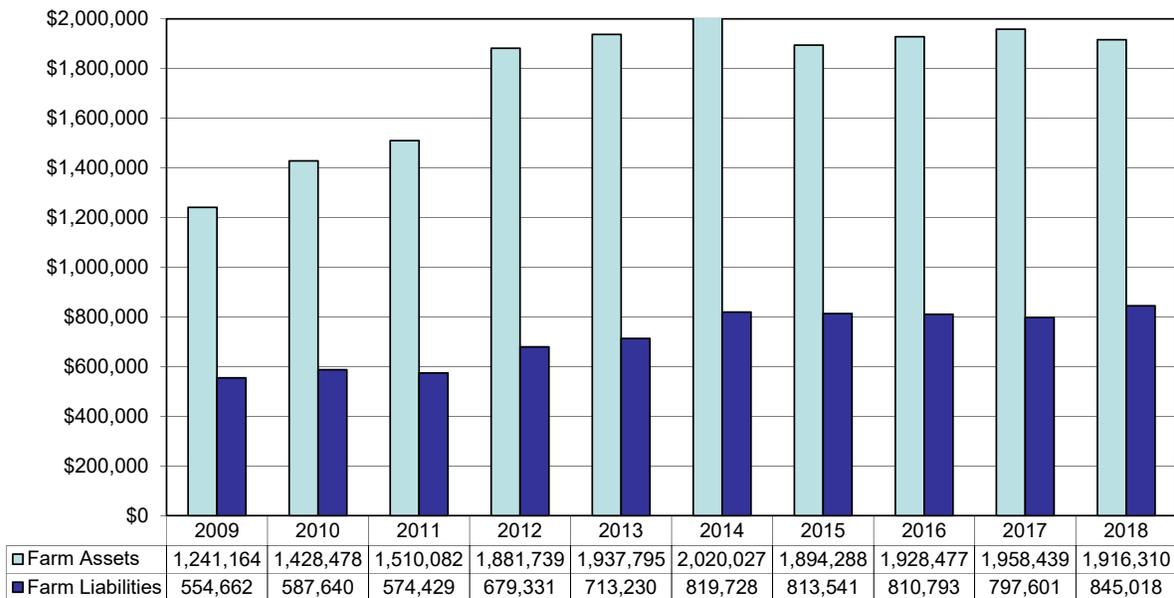
N.D. Farm Business Management Education Program



**Figure 5. Assets and Liabilities Per Farm, 2018**  
 N.D. Farm Business Management Education Program

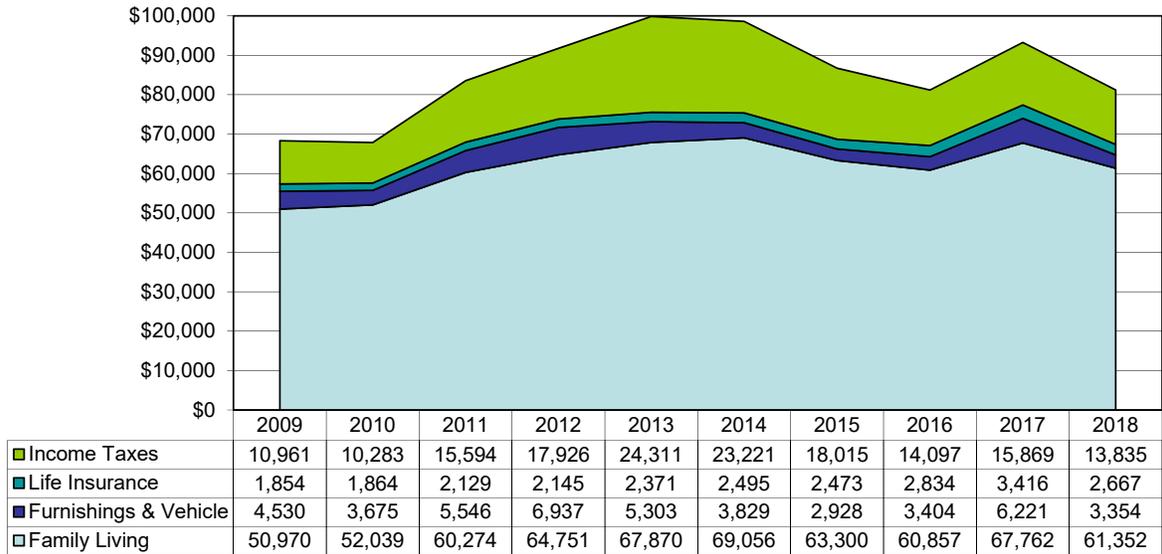


**Figure 6. Total Farm Assets and Liabilities**  
 N.D. Farm Business Management Education Program



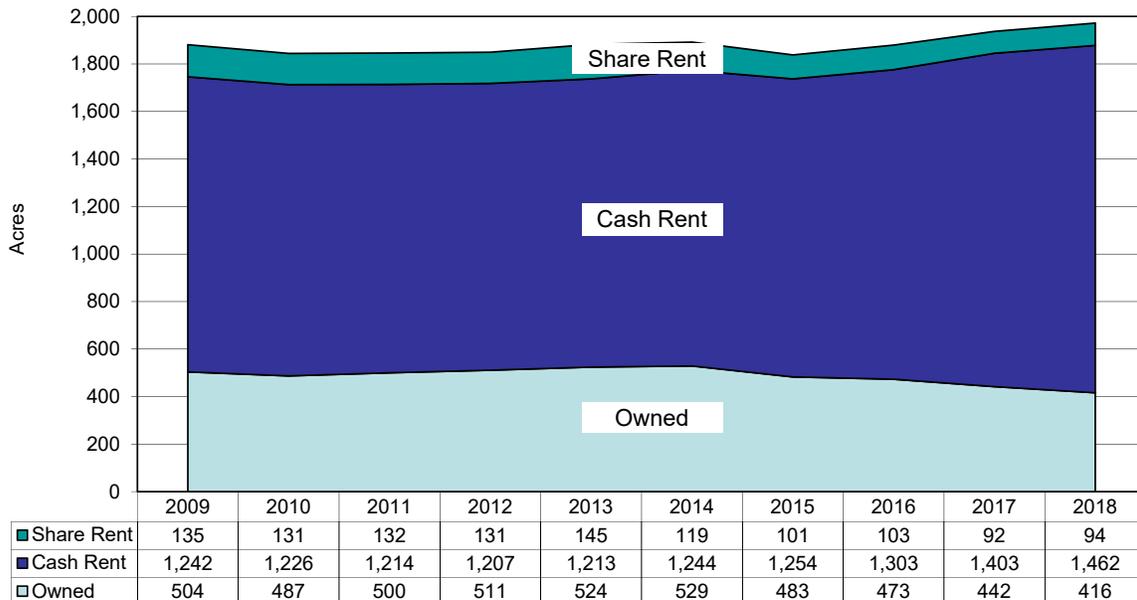
## Figure 7. Household and Personal Expenses

N.D. Farm Business Management Education Program

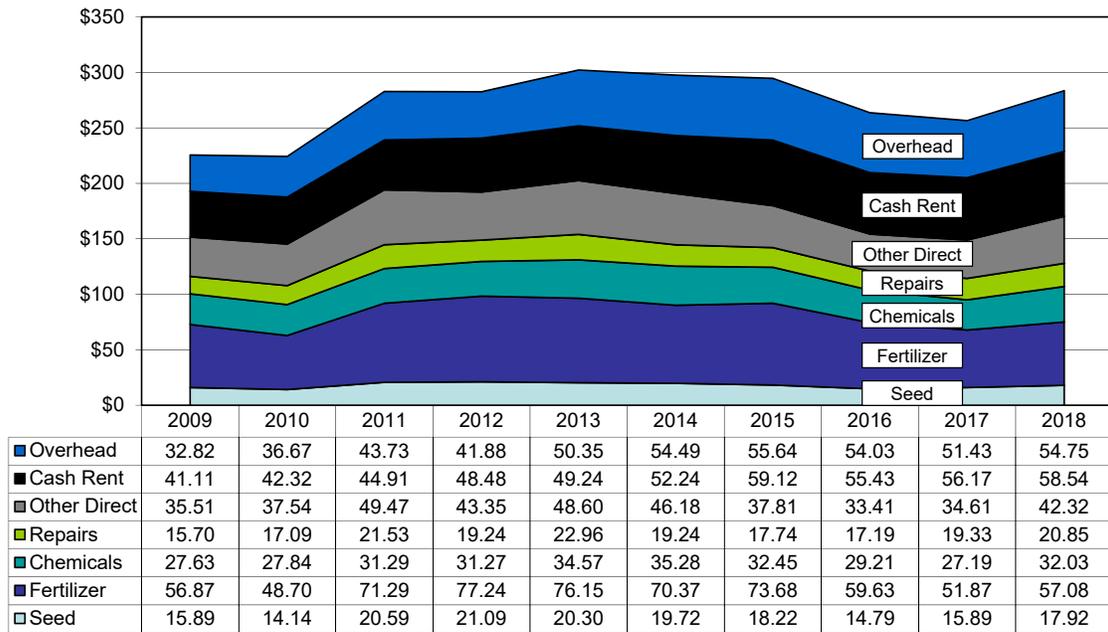


## Figure 8. Crop Acreage Per Farm

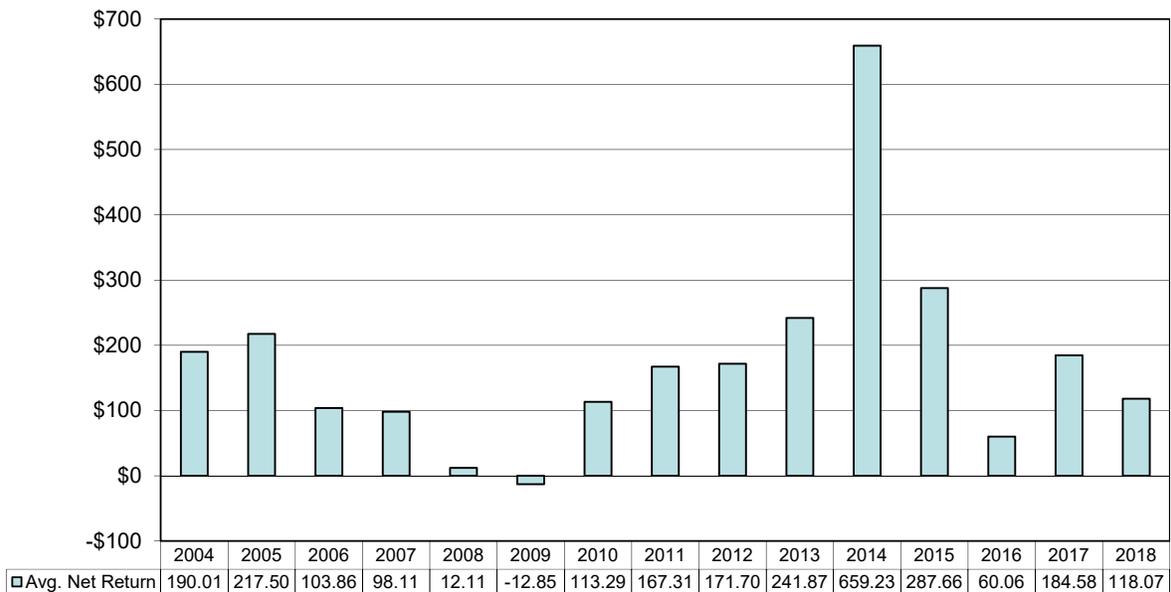
N.D. Farm Business Management Education Program



**Figure 9. Spring Wheat Costs Per Acre**  
N.D. Farm Business Management Education Program



**Figure 10. Average Net Return Per Beef Cow**  
N.D. Farm Business Management Education Program







# 42 YEARS OF LEADERSHIP



2019 F-150

THE FORD F-150 HAS BEEN AMERICA'S BEST-SELLING TRUCK FOR 42 YEARS IN A ROW,\* SO IT HAS WHAT YOU NEED TO LEAD BY EXAMPLE. TEST-DRIVE TODAY AT YOUR NORTHLAND FORD DEALERS.

PROUD SPONSORS OF THE NORTH DAKOTA FFA.



NORTHLAND FORD DEALERS  
[BUYFORDNOW.COM](http://BUYFORDNOW.COM)

\*CLAIM BASED ON 1976 THROUGH 2018 CY SALES.