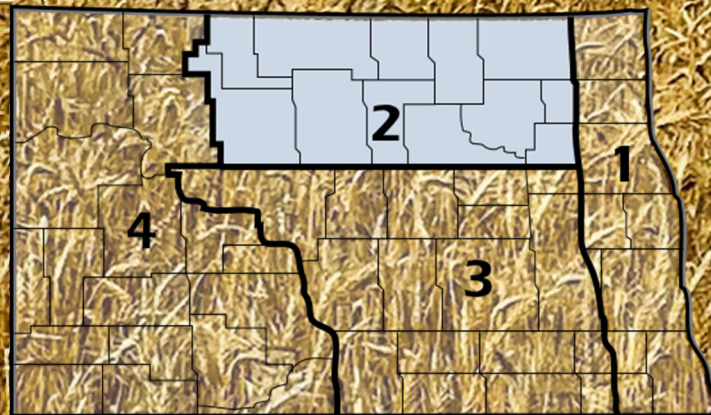


# 2023 ANNUAL REPORT

## North Central North Dakota

North Dakota Farm Management Education



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





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and Technical Education

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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 2023.

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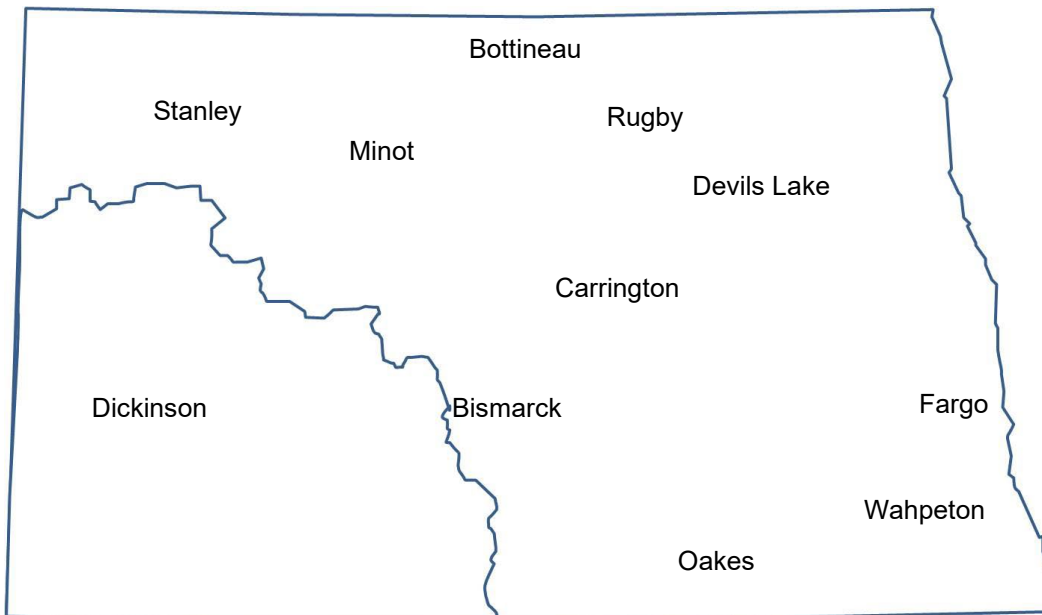
# NORTH DAKOTA FARM BUSINESS MANAGEMENT EDUCATION

## REGION 2 – NORTH CENTRAL AVERAGES 2023 ANNUAL REPORT

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

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This report was made possible by the farm families who cooperated with their farm management instructors in getting the records for 2023 closed out on a timely basis. The farm management instructors cited above generated the Finpack year-end farm analyses. Bryon Parman, NDSU Extension Service, databased the Finpack analyses of farms and generated the comparative tables for this report.



2023 North Central Report  
North Dakota Farm Business Management Education

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## INTRODUCTION

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

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

The 2023 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 35<sup>th</sup> 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, and CSP.

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 operator's labor and management that is used in the calculation of several financial performance measures. A value of \$30,000 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.

**Working Capital to Operating Expenses:** Measures the operating capital available against the amount of the business's operating expenses.

### 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.

**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.

**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.

**Debt Coverage Ratio:** Indicates whether your business generated enough income to cover current interest expense and all intermediate and long-term debt payments.

**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.

**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**  
**Region 2 - North Central North Dakota, 2023**  
**(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	116	23	23	24
<b>Cash Farm Income</b>				
Barley	20,166	20,608	7,873	42,091
Beans, Pinto	20,593	29,004	6,577	43,721
Canola	152,267	189,975	96,834	231,984
Corn	42,072	37,087	37,490	61,250
Flax	3,652	-	16,377	39
Oats	16,748	25,747	3,156	15,646
Peas, Dry Edible	11,968	8,376	-	43,423
Peas, Field	1,588	-	6,573	-
Rye	1,130	3,686	-	1,928
Soybeans	198,175	241,477	134,581	303,015
Sunflowers	19,930	24,186	12,882	52,165
Wheat, Durum	13,399	28,814	-	18,632
Wheat, Spring	257,657	282,770	209,192	410,576
Wheat, Winter	2,097	53	7,942	1,170
Hay	2,751	211	-	5,846
Miscellaneous crop income	1,308	154	4,404	709
Beef Cow-Calf, Beef Calves	13,832	2,443	28,691	-
Beef Replacement Heifers	1,367	2,235	416	482
Beef Backgrounding	23,694	10,031	9,832	43,153
Beef Finish Yearlings	863	87	-	4,086
Cull breeding livestock	6,086	3,306	4,490	7,434
Misc. livestock income	258	-	64	1,054
Crop government payments	798	1,435	9	1,904
CRP payments	511	350	647	1,214
Livestock govt payments	754	110	882	198
Conservation govt payment	4,838	4,921	4,787	9,505
Other government payments	13,504	21,294	6,558	18,651
Custom work income	11,370	14,150	7,732	19,730
Patronage dividends, cash	9,842	11,905	6,850	14,857
Crop insurance income	61,936	106,762	29,620	96,290
Property insurance income	353	-	-	881
Sale of resale items	2,209	-	-	10,679
Livestock insurance inc	252	-	1,270	-
Farm rental income	2,849	1,379	1,237	6,791
Other farm income	13,917	19,220	5,904	34,154
Gross Cash Farm Income	934,735	1,091,778	652,869	1,503,258

**Farm Income Statement (continued)**  
**North Dakota Farm Business Management Education Program**  
**Region 2 - North Central North Dakota, 2023**  
**(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	116	23	23	24
<b>Cash Farm Expense</b>				
Seed and plants	87,850	105,855	56,945	141,068
Fertilizer	133,126	184,734	82,963	193,799
Crop chemicals	94,690	126,552	62,588	143,401
Crop insurance	44,631	53,332	30,269	63,312
Drying expense	564	944	760	616
Storage	150	91	-	66
Irrigation energy	204	328	-	129
Crop miscellaneous	920	2,189	256	1,060
Crop consultants	3,490	4,863	1,349	5,786
Feeder livestock purchase	8,421	16,898	516	-
Purchased feed	6,375	3,157	10,740	5,203
Veterinary	1,743	941	2,301	1,228
Supplies	1,772	1,874	1,474	2,103
Livestock insurance	67	-	200	-
Livestock leases	259	407	-	-
Livestock consultants	140	60	-	619
Interest	39,692	65,360	21,046	47,489
Fuel & oil	40,433	44,610	34,429	51,115
Repairs	81,031	120,836	54,834	110,998
Custom hire	18,350	17,786	11,041	26,474
Hired labor	19,992	27,001	13,253	28,639
Land rent	89,216	113,326	63,342	133,498
Machinery leases	14,871	27,917	4,992	25,664
Building leases	946	824	761	2,296
Real estate taxes	5,057	6,035	4,711	6,635
Farm insurance	12,214	14,673	10,405	15,366
Utilities	6,896	7,030	5,697	10,614
Hauling and trucking	490	1,511	-	904
Marketing	948	2,736	54	923
Dues & professional fees	3,618	3,255	2,649	5,481
Purchase of resale items	4,531	-	-	21,900
Miscellaneous	9,543	8,674	8,781	15,783
Total cash expense	732,231	963,802	486,357	1,062,168
Net cash farm income	202,504	127,975	166,512	441,090
<b>Inventory Changes</b>				
Prepays and supplies	-13,180	7,264	-19,781	-22,720
Accounts receivable	14,577	27,949	35,624	9,971
Hedging accounts	1,398	8,231	-932	-1,015
Other current assets	11,546	679	-579	55,710
Crops and feed	-74,256	-246,610	-89,045	-9,555
Market livestock	12,407	16,425	10,355	11,680
Breeding livestock	-848	-2,716	-7,411	7,284
Other assets	-5,066	-6,105	1,048	-19,704
Accounts payable	-8,646	-14,916	-1,296	-6,376
Accrued interest	-7,222	-15,045	-5,456	-4,905
Total inventory change	-69,290	-224,845	-77,472	20,370
Net operating profit	133,214	-96,869	89,040	461,459
<b>Depreciation</b>				
Machinery and equipment	-55,992	-61,370	-39,914	-84,056
Titled vehicles	-7,576	-8,995	-6,663	-13,744
Buildings and improvements	-4,946	-5,753	-4,299	-7,803
Total depreciation	-68,514	-76,118	-50,877	-105,603
Net farm income from operations	64,700	-172,987	38,163	355,856
Gain or loss on capital sales	9,392	2,593	2,876	29,013
Net farm income	74,092	-170,393	41,039	384,869

**Inventory Changes**  
**North Dakota Farm Business Management Education Program**  
**Region 2 - North Central North Dakota, 2023**  
**(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	116	23	23	24
Net cash farm income	202,504	127,975	166,512	441,090
<b>Crops and Feed</b>				
Ending inventory	495,575	447,336	372,832	888,057
Beginning inventory	569,831	693,947	461,877	897,613
Inventory change	-74,256	-246,610	-89,045	-9,555
<b>Market Livestock</b>				
Ending inventory	42,723	30,913	45,737	40,229
Beginning inventory	30,316	14,488	35,382	28,550
Inventory change	12,407	16,425	10,355	11,680
<b>Accts Receivable</b>				
Ending inventory	49,669	87,513	38,544	52,216
Beginning inventory	35,093	59,565	2,920	42,246
Inventory change	14,577	27,949	35,624	9,971
<b>Prepaid Expenses and Supplies</b>				
Ending inventory	77,921	81,140	49,055	173,071
Beginning inventory	91,101	73,876	68,837	195,791
Inventory change	-13,180	7,264	-19,781	-22,720
<b>Hedging Activities</b>				
Ending inventory	7,270	8,062	215	15,760
Withdrawals	5,186	12,592	1,004	11,433
Beginning inventory	7,360	7,114	1,365	21,164
Deposits	3,699	5,309	787	7,044
Gain or loss	1,398	8,231	-932	-1,015
<b>Other Current Assets</b>				
Ending inventory	11,949	963	98	56,265
Beginning inventory	403	283	677	554
Inventory change	11,546	679	-579	55,710
<b>Breeding Livestock</b>				
Ending inventory	64,644	29,489	66,792	89,093
Capital sales	2,224	2,211	6,311	-
Beginning inventory	58,711	31,865	64,700	75,366
Capital purchases	9,005	2,552	15,814	6,443
Depreciation, capital adjust	-848	-2,716	-7,411	7,284
<b>Other Capital Assets</b>				
Ending inventory	62,609	123,970	34,783	64,634
Capital sales	739	873	297	31
Beginning inventory	60,468	126,812	32,379	54,983
Capital purchases	7,947	4,136	1,652	29,387
Depreciation, capital adjust	-5,066	-6,105	1,048	-19,704
<b>Accounts Payable</b>				
Beginning inventory	15,260	19,621	6,642	21,270
Ending inventory	23,906	34,536	7,937	27,646
Inventory change	-8,646	-14,916	-1,296	-6,376
<b>Accrued Interest</b>				
Beginning inventory	15,152	20,708	7,390	21,665
Ending inventory	22,374	35,753	12,846	26,570
Inventory change	-7,222	-15,045	-5,456	-4,905
Total inventory change	-69,290	-224,845	-77,472	20,370
Net operating profit	133,214	-96,869	89,040	461,459

**Depreciation**  
**North Dakota Farm Business Management Education Program**  
**Region 2 - North Central North Dakota, 2023**  
**(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	116	23	23	24
Net operating profit	133,214	-96,869	89,040	461,459
<b>Machinery and Equipment</b>				
Ending inventory	697,293	733,948	507,518	1,154,570
Capital sales	58,737	34,918	14,918	166,850
Beginning inventory	627,110	683,637	482,828	981,727
Capital purchases	184,912	146,599	79,523	423,750
Depreciation, capital adjust.	-55,992	-61,370	-39,914	-84,056
<b>Titled Vehicles</b>				
Ending inventory	91,197	116,556	83,809	141,960
Capital sales	2,991	3,137	2,528	3,577
Beginning inventory	81,737	101,379	73,835	118,801
Capital purchases	20,026	27,309	19,164	40,481
Depreciation, capital adjust.	-7,576	-8,995	-6,663	-13,744
<b>Buildings and Improvements</b>				
Ending inventory	201,663	146,611	186,161	384,279
Capital sales	259	-	-	-
Beginning inventory	175,490	138,816	162,101	301,155
Capital purchases	31,378	13,547	28,360	90,927
Depreciation, capital adjust.	-4,946	-5,753	-4,299	-7,803
Total depreciation, capital adj.	-68,514	-76,118	-50,877	-105,603
Net farm income from operations	64,700	-172,987	38,163	355,856
Gain or loss on capital sales	9,392	2,593	2,876	29,013
Net farm income	74,092	-170,393	41,039	384,869



**Profitability Measures**  
**North Dakota Farm Business Management Education Program**  
**Region 2 - North Central North Dakota, 2023**  
**(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	116	23	23	24
<b>Profitability (assets valued at cost)</b>				
Net farm income from operations	64,700	-172,987	38,163	355,856
Rate of return on assets	1.6 %	-6.4 %	0.5 %	7.4 %
Rate of return on equity	-0.5 %	-19.5 %	-1.2 %	8.8 %
Operating profit margin	4.5 %	-19.2 %	1.6 %	19.8 %
Asset turnover rate	34.6 %	33.6 %	29.8 %	37.4 %
Farm interest expense	46,914	80,405	26,502	52,394
Value of operator lbr and mgmt.	72,143	74,279	55,155	107,643
Return on farm assets	39,470	-166,860	9,510	300,607
Average farm assets	2,517,405	2,587,723	1,978,912	4,057,939
Return on farm equity	-7,444	-247,265	-16,991	248,213
Average farm equity	1,571,116	1,269,252	1,359,752	2,809,508
Value of farm production	872,017	868,896	590,673	1,515,961

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	116	23	23	24
<b>Profitability (assets valued at market)</b>				
Net farm income from operations	160,925	-73,400	76,440	498,687
Rate of return on assets	4.5 %	-2.1 %	2.0 %	9.3 %
Rate of return on equity	4.2 %	-8.0 %	1.2 %	11.1 %
Operating profit margin	15.6 %	-7.7 %	8.1 %	29.3 %
Asset turnover rate	28.7 %	27.6 %	24.4 %	31.8 %
Farm interest expense	46,914	80,405	26,502	52,394
Value of operator lbr and mgmt.	72,143	74,279	55,155	107,643
Return on farm assets	135,695	-67,274	47,787	443,439
Average farm assets	3,037,852	3,153,235	2,424,878	4,770,458
Return on farm equity	88,781	-147,679	21,285	391,044
Average farm equity	2,091,563	1,834,764	1,805,718	3,522,027
Value of farm production	872,017	868,896	590,673	1,515,961

**Liquidity & Repayment Capacity Measures**  
**North Dakota Farm Business Management Education Program**  
**Region 2 - North Central North Dakota, 2023**  
**(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	116	23	23	24
<b>Liquidity</b>				
Current ratio	1.92	1.11	2.11	2.65
Working capital	363,167	72,411	290,459	852,278
Change in working capital	-162,945	-451,830	-116,225	-75,834
Working capital to gross revenue	40.7 %	8.1 %	48.3 %	55.2 %
Working capital to oper expense	51.1 %	8.0 %	59.7 %	82.8 %
Current assets	756,558	707,025	552,195	1,369,943
Current liabilities	393,392	634,615	261,736	517,665
Gross revenues (accrual)	891,345	888,951	601,929	1,543,063
Total operating expenses	711,216	905,415	486,388	1,029,209
<b>Repayment capacity</b>				
Net farm income from operations	64,700	-172,987	38,163	355,856
Depreciation	68,514	76,118	50,877	105,603
Personal income	52,697	73,494	33,998	80,880
Family living/owner withdrawals	-87,476	-107,959	-76,144	-97,791
Cash discrepancy	-54	-109	-130	-45
Income taxes	-18,181	-20,478	-9,384	-29,265
Interest expense	50,186	86,884	28,560	55,684
Debt repayment capacity	130,386	-65,037	65,940	470,923
Debt payments	121,597	166,329	89,074	155,402
Repayment margin	8,789	-231,366	-23,134	315,521
Cash replacement allowance	-46,261	-51,209	-37,920	-81,741
Replacement margin	-37,472	-282,575	-61,054	233,780
Debt coverage ratio	1.07	-0.39	0.74	3.03
Term debt coverage ratio	1.09	-0.95	0.69	3.35
Replacement coverage ratio	0.78	-0.30	0.52	1.99

**Balance Sheet at Cost Values**  
**North Dakota Farm Business Management Education Program**  
**Region 2 - North Central North Dakota, 2023**  
**(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	116	23	23	24
<b>Assets</b>				
<b>Current Farm Assets</b>				
Cash and checking balance	71,451	51,099	45,713	144,344
Prepaid expenses & supplies	77,921	81,140	49,055	173,071
Growing crops	3,183	679	-	14,732
Accounts receivable	49,669	87,513	38,544	52,216
Hedging accounts	7,270	8,062	215	15,760
Crops held for sale or feed	495,575	447,336	372,832	888,057
Crops under government loan	-	-	-	-
Market livestock held for sale	42,723	30,913	45,737	40,229
Other current assets	8,766	283	98	41,533
Total current farm assets	756,558	707,025	552,195	1,369,943
<b>Intermediate Farm Assets</b>				
Breeding livestock	64,644	29,489	66,792	89,093
Machinery and equipment	697,293	733,948	507,518	1,154,570
Titled vehicles	91,197	116,556	83,809	141,960
Other intermediate assets	30,973	64,568	8,355	19,187
Total intermediate farm assets	884,107	944,561	666,473	1,404,810
<b>Long Term Farm Assets</b>				
Farm land	728,686	786,099	574,924	1,104,706
Buildings and improvements	201,663	146,611	186,161	384,279
Other long-term assets	31,636	59,402	26,428	45,447
Total long-term farm assets	961,985	992,112	787,514	1,534,432
Total Farm Assets	2,602,651	2,643,699	2,006,181	4,309,185
Total Nonfarm Assets	498,549	689,172	271,850	797,608
Total Assets	3,101,200	3,332,871	2,278,032	5,106,793
<b>Liabilities</b>				
<b>Current Farm Liabilities</b>				
Accrued interest	22,374	35,753	12,846	26,570
Accounts payable	23,868	34,536	7,873	27,524
Current notes	271,906	487,636	187,436	343,670
Government crop loans	-	-	-	-
Principal due on term debt	75,244	76,690	53,580	119,902
Total current farm liabilities	393,392	634,615	261,736	517,665
Total intermediate farm liabs	199,362	193,235	142,856	306,782
Total long term farm liabilities	450,319	692,582	259,804	542,079
Total farm liabilities	1,043,073	1,520,432	664,396	1,366,527
Total nonfarm liabilities	97,493	209,383	55,759	92,994
Total liabilities	1,140,565	1,729,815	720,155	1,459,521
Net worth (farm and nonfarm)	1,960,635	1,603,056	1,557,877	3,647,272
Net worth change	31,705	-226,118	-6,582	355,256
Percent net worth change	2 %	-12 %	0 %	11 %
<b>Ratio Analysis</b>				
Current farm liabilities / assets	52 %	90 %	47 %	38 %
Intermediate farm liab. / assets	23 %	20 %	21 %	22 %
Long term farm liab. / assets	47 %	70 %	33 %	35 %
Total debt to asset ratio	37 %	52 %	32 %	29 %

**Statement Of Cash Flows**  
**North Dakota Farm Business Management Education Program**  
**Region 2 - North Central North Dakota, 2023**  
**(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	116	23	23	24
Beginning cash (farm & nonfarm)	103,701	80,511	61,415	203,801
<b>Cash Provided By Operating Activities</b>				
Gross cash farm income	934,735	1,091,778	652,869	1,503,258
Total cash farm expense	-732,231	-963,802	-486,357	-1,062,168
Net cash from hedging transactions	1,487	7,284	217	4,389
Cash provided by operating	203,991	135,259	166,730	445,479
<b>Cash Provided By Investing Activities</b>				
Sale of breeding livestock	2,287	2,561	6,311	-
Sale of machinery & equipment	66,975	37,571	17,648	189,933
Sale of titled vehicles	3,416	2,727	2,674	6,292
Sale of farm land	4,051	19,532	652	-
Sale of farm buildings	928	-	-	3,238
Sale of other farm assets	735	873	297	9
Sale of nonfarm assets	10,810	28,005	7,444	5,744
Purchase of breeding livestock	-9,005	-2,552	-15,814	-6,443
Purchase of machinery & equip.	-184,912	-146,599	-79,523	-423,750
Purchase of titled vehicles	-20,026	-27,309	-19,164	-40,481
Purchase of farm land	-111,122	-275,492	-51,227	-123,298
Purchase of farm buildings	-31,378	-13,547	-28,360	-90,927
Purchase of other farm assets	-7,947	-4,136	-1,652	-29,387
Purchase of nonfarm assets	-61,888	-92,093	-48,465	-76,984
Cash provided by investing	-337,075	-470,459	-209,180	-586,053
<b>Cash Provided By Financing Activities</b>				
Money borrowed	702,685	933,149	473,773	1,024,221
Principal payments	-516,289	-530,491	-384,047	-800,426
Personal income	52,697	73,494	33,998	80,880
Family living/owner withdrawals	-87,476	-107,959	-76,144	-97,791
Income and social security tax	-17,335	-18,522	-10,674	-26,556
Capital contributions	1,076	1,900	1,522	-
Capital distributions	-5,868	-22,404	-	-4,309
Dividends paid	-	-	-	-
Cash gifts and inheritances	2,685	6	3,575	2,917
Gifts given	-129	-	-652	-
Other cash flows	-	-	-	-
Cash provided by financing	132,046	329,172	41,350	178,936
Net change in cash balance	-1,038	-6,028	-1,101	38,362
Ending cash (farm & nonfarm)	102,608	74,375	60,185	242,118
Discrepancy	54	109	130	45

**Financial Standards Measures**  
**North Dakota Farm Business Management Education Program**  
**Region 2 - North Central North Dakota, 2023**  
**(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	116	23	23	24
<b>Liquidity</b>				
Current ratio	1.92	1.11	2.11	2.65
Working capital to gross revenue	40.7 %	8.1 %	48.3 %	55.2 %
Working capital to oper expense	51.1 %	8.0 %	59.7 %	82.8 %
<b>Solvency (market)</b>				
Farm debt to asset ratio	33 %	47 %	27 %	27 %
Farm equity to asset ratio	67 %	53 %	73 %	73 %
Farm debt to equity ratio	0.49	0.87	0.37	0.37
<b>Profitability (cost)</b>				
Rate of return on farm assets	1.6 %	-6.4 %	0.5 %	7.4 %
Rate of return on farm equity	-0.5 %	-19.5 %	-1.2 %	8.8 %
Operating profit margin	4.5 %	-19.2 %	1.6 %	19.8 %
Asset turnover rate	34.6 %	33.6 %	29.8 %	37.4 %
<b>Repayment Capacity</b>				
Debt coverage ratio	1.07	-0.39	0.74	3.03
Term debt coverage ratio	1.09	-0.95	0.69	3.35
Replacement coverage ratio	0.78	-0.30	0.52	1.99
<b>Efficiency</b>				
Operating expense ratio	79.8 %	101.9 %	80.8 %	66.7 %
Depreciation expense ratio	7.7 %	8.6 %	8.5 %	6.8 %
Interest expense ratio	5.3 %	9.0 %	4.4 %	3.4 %
Net farm income ratio	7.3 %	-19.5 %	6.3 %	23.1 %

**Crop Production and Marketing Summary**  
**North Dakota Farm Business Management Education Program**  
**Region 2 - North Central North Dakota, 2023**  
**(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	116	23	23	24
<b>Acreage Summary</b>				
Total acres owned	702	664	742	900
Total crop acres	1,957	2,107	1,456	3,100
Crop acres owned	413	471	393	534
Crop acres cash rented	1,428	1,587	989	2,256
Crop acres share rented	116	48	73	310
Total pasture acres	283	78	313	387
Percent crop acres owned	21 %	22 %	27 %	17 %
Mach invest/crop acre cost	377	388	386	386
Mach invest/crop acre market	469	487	473	486
<b>Average Price Received (Cash Sales Only)</b>				
Wheat, Spring per bushel	8.34	8.17	7.93	8.53
Soybeans per bushel	12.94	13.24	13.33	12.92
Canola per cwt	25.92	25.19	25.08	27.03
Corn per bushel	5.09	5.02	4.86	5.41
Barley per bushel	6.80	-	-	7.03
Oats per bushel	4.30	4.39	-	-
Sunflowers per cwt	23.80	-	-	-
Wheat, Durum per bushel	10.24	-	-	-
Flax per bushel	16.37	-	-	-
Beans, Pinto per cwt	36.53	-	-	-
Peas, Dry Edible per bushel	1.96	-	-	-
<b>Average Yield Per Acre</b>				
Wheat, Spring (bushel)	54.37	48.60	55.33	59.84
Soybeans (bushel)	29.81	25.07	28.42	32.19
Canola (cwt)	20.27	17.85	21.08	21.55
Corn (bushel)	110.97	104.19	106.89	102.60
Barley (bushel)	63.27	52.73	58.59	72.07
Hay, Mixed Alfalfa/Grass (ton)	1.23	-	2.00	1.25
Hay, Grass (ton)	1.48	1.20	-	-
Oats (bushel)	114.28	101.91	-	105.05
Hay, Alfalfa (ton)	1.59	-	1.73	1.29
Sunflowers (cwt)	17.38	13.85	22.01	-
Hay, Small Grain (ton)	1.88	-	-	1.63
Beans, Pinto (cwt)	15.13	-	-	15.45
Peas, Dry Edible (bushel)	34.49	-	-	38.79
Corn Silage (ton)	11.99	-	-	-
Wheat, Durum (bushel)	56.56	-	-	61.66
Hay, Mixed (ton)	1.46	-	-	-
Barley, Malting (bushel)	70.07	-	-	70.07
Flax (bushel)	23.02	-	22.93	-

**Household and Personal Expenses**  
**North Dakota Farm Business Management Education Program**  
**Region 2 - North Central North Dakota, 2023**  
**(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	35	8	6	7
Average family size	2.9	3.1	2.5	2.6
<b>Family Living Expenses</b>				
Food and meals expense	11,762	13,401	12,554	10,130
Medical care	5,764	7,993	5,194	4,938
Health insurance	5,602	4,541	3,756	4,859
Cash donations	1,925	3,170	2,721	467
Household supplies	12,362	32,696	7,188	5,994
Clothing	2,973	6,565	1,346	1,862
Personal care	5,479	5,302	8,426	1,154
Child / Dependent care	2,084	5,932	-	1,815
Alimony and child support	-	-	-	-
Gifts	2,181	3,579	2,502	702
Education	741	1,116	324	1,489
Recreation	5,821	4,463	6,015	9,546
Utilities (household share)	4,480	5,198	6,092	1,678
Personal vehicle operating exp	4,932	9,386	2,353	4,658
Household real estate taxes	171	716	43	-
Dwelling rent	321	-	-	1,249
Household repairs	3,693	9,791	2,969	365
Personal interest	3,673	9,406	2,037	1,710
Disability / Long term care ins	393	972	-	-
Life insurance payments	4,756	6,954	1,082	5,148
Personal property insurance	441	500	1,695	-
Miscellaneous	12,182	22,719	12,260	9,654
Total cash family living expense	91,736	154,402	78,556	67,419
Family living from the farm	340	-	-	1,414
Total family living	92,076	154,402	78,556	68,833
<b>Other Nonfarm Expenditures</b>				
Income taxes	14,771	14,381	10,555	5,410
Furnishing & appliance purchases	267	-	141	-
Nonfarm vehicle purchases	12,687	11,990	13,006	5,546
Nonfarm real estate purchases	7,054	-22,426	-	-
Other nonfarm capital purchases	848	1,751	278	2,000
Nonfarm savings & investments	12,253	57,678	-14,604	-6,997
Total other nonfarm expenditures	47,880	63,375	9,375	5,960
Total cash family living investment & nonfarm capital purch	139,616	217,777	87,931	73,378

**Operator and Labor Information**  
**North Dakota Farm Business Management Education Program**  
**Region 2 - North Central North Dakota, 2023**  
**(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	116	23	23	24
<b>Operator Information</b>				
Average number of operators	1.1	1.0	1.1	1.3
Average age of operators	44.4	49.5	45.0	41.1
Average number of years farming	19.2	24.5	20.9	15.2
<b>Results Per Operator</b>				
Working capital	331,711	69,394	256,944	659,828
Total assets (market)	3,407,997	3,835,208	2,459,459	4,644,795
Total liabilities	1,041,776	1,657,739	637,060	1,129,952
Net worth (market)	2,366,221	2,177,469	1,822,399	3,514,843
Net worth excl deferred liabs	2,366,221	2,177,469	1,822,399	3,514,843
Gross farm income	814,142	851,911	532,476	1,194,630
Total farm expense	755,046	1,017,690	498,716	919,128
Net farm income from operations	59,096	-165,779	33,760	275,502
Net nonfarm income	48,132	70,432	30,075	62,617
Family living & tax withdrawals	96,555	123,190	75,775	98,400
Total acres owned	641.6	636.6	656.4	696.8
Total crop acres	1,787.7	2,019.1	1,287.6	2,400.0
Crop acres owned	377.2	451.3	347.9	413.6
Crop acres cash rented	1,304.4	1,521.3	875.3	1,746.8
Crop acres share rented	106.1	46.5	64.4	239.7
Total pasture acres	258.3	74.7	276.9	299.7
<b>Labor Analysis</b>				
Number of farms	116	23	23	24
Total unpaid labor hours	2,109	2,043	2,009	2,450
Total hired labor hours	643	989	494	702
Total labor hours per farm	2,753	3,032	2,503	3,152
Unpaid hours per operator	1,927	1,958	1,777	1,897
Value of farm production / hour	316.77	286.55	235.99	481.03
Net farm income / unpaid hour	30.67	-84.65	19.00	145.25
Average hourly hired labor wage	30.30	28.12	26.18	38.85
<b>Partnerships &amp; LLCs</b>				
Number of farms	5	1	1	2
Number of operators	1.6	-	-	-
Owner withdrawals per farm	-	-	-	-
Withdrawals per operator	-	-	-	-



**Nonfarm Summary**  
**North Dakota Farm Business Management Education Program**  
**Region 2 - North Central North Dakota, 2023**  
**(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	116	23	23	24
<b>Nonfarm Income</b>				
Personal wages & salary	26,612	30,029	20,336	31,550
Net nonfarm business income	8,119	84	1,051	34,812
Personal rental income	5,030	9,414	4,810	6,294
Personal interest income	518	43	699	1,689
Tax refunds	1,435	1,535	1,230	1,690
Other nonfarm income	10,982	32,389	5,871	4,845
Total nonfarm income	52,697	73,494	33,998	80,880
Gifts and inheritances	2,685	6	3,575	2,917
<b>Nonfarm Assets (market)</b>				
Checking & savings	31,157	23,275	14,472	97,774
Stocks & bonds	33,733	17,274	4,766	55,981
Other current assets	9,957	14,531	109	31,261
Furniture & appliances	7,024	12,754	3,783	10,740
Nonfarm vehicles	44,702	48,670	29,766	58,846
Cash value of life ins.	21,596	17,587	22,189	36,854
Retirement accounts	159,360	153,393	89,600	255,723
Other intermediate assets	8,152	3,263	13,019	8,406
Nonfarm real estate	220,785	434,042	130,182	262,723
Personal bus. investment	1,586	1,798	1,087	4,899
Other long term assets	21,907	16,364	-	83,202
Total nonfarm assets	559,958	742,952	308,972	906,408
<b>Nonfarm Liabilities</b>				
Accrued interest	780	3,216	339	61
Accounts payable	8,199	7,464	5,239	13,471
Current notes	3,647	-	-	15,849
Princ due on term debt	5,722	10,798	3,501	2,797
Total current liabilities	18,348	21,477	9,079	32,178
Intermediate liabilities	8,064	14,896	2,872	1,723
Long term liabilities	71,081	173,010	43,807	59,093
Total nonfarm liabilities	97,493	209,383	55,759	92,994
Nonfarm net worth	462,465	533,569	253,214	813,413
Nonfarm debt to asset ratio	17 %	28 %	18 %	10 %

**Financial Summary**  
**North Dakota Farm Business Management Education Program**  
**Region 2 - North Central North Dakota, 2023**  
**(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	116	9	12	22	29	33	11
<b>Income Statement</b>							
Gross cash farm income	934,735	44,795	162,780	369,455	717,784	1,412,458	2,774,350
Total cash farm expense	732,231	62,674	136,204	297,113	587,049	1,126,469	2,000,532
Net cash farm income	202,504	-17,879	26,577	72,343	130,735	285,989	773,818
Inventory change	-69,290	51,186	26,839	31,254	-47,263	-201,188	-136,190
Depreciation	-68,514	-5,568	-5,728	-20,588	-39,834	-99,376	-267,393
Net farm income from operations	64,700	27,739	47,688	83,009	43,637	-14,575	370,234
Gain or loss on capital sales	9,392	327	42	919	2,166	10,655	59,215
Average net farm income	74,092	28,066	47,730	83,927	45,803	-3,920	429,449
Median net farm income	45,006	8,283	32,336	71,098	43,588	18,454	345,683
<b>Profitability (cost)</b>							
Rate of return on assets	1.6 %	3.7 %	5.3 %	6.8 %	0.9 %	-0.9 %	3.9 %
Rate of return on equity	-0.5 %	2.2 %	7.2 %	9.5 %	-1.5 %	-4.9 %	3.8 %
Operating profit margin	4.5 %	10.4 %	17.0 %	14.9 %	2.6 %	-2.5 %	11.8 %
Asset turnover rate	34.6 %	35.7 %	31.1 %	45.5 %	34.4 %	34.4 %	32.9 %
<b>Profitability (market)</b>							
Rate of return on assets	4.5 %	7.9 %	4.6 %	8.1 %	5.8 %	1.5 %	6.6 %
Rate of return on equity	4.2 %	12.1 %	5.1 %	10.9 %	6.1 %	-0.5 %	7.3 %
Operating profit margin	15.6 %	23.3 %	18.5 %	22.6 %	21.3 %	5.1 %	24.3 %
Asset turnover rate	28.7 %	33.9 %	25.0 %	35.9 %	27.1 %	29.7 %	27.0 %
<b>Liquidity &amp; Repayment (end of year)</b>							
Current assets	756,558	105,893	158,707	269,937	592,350	1,074,585	2,393,197
Current liabilities	393,392	85,032	102,593	155,807	293,547	600,847	1,078,950
Current ratio	1.92	1.25	1.55	1.73	2.02	1.79	2.22
Working capital	363,167	20,861	56,114	114,131	298,803	473,738	1,314,247
Change in working capital	-162,945	-4,182	9,664	-12,620	-114,574	-352,616	-340,301
Working capital to gross revenue	40.7 %	20.9 %	28.7 %	27.7 %	42.8 %	37.4 %	49.7 %
Working capital to oper expense	51.1 %	35.5 %	44.5 %	40.3 %	51.6 %	42.9 %	68.8 %
Debt coverage ratio	1.07	1.76	1.16	1.39	0.55	0.48	2.60
Term debt coverage ratio	1.09	1.99	1.19	1.47	0.46	0.33	2.88
Replacement coverage ratio	0.78	1.62	1.08	1.23	0.43	0.35	1.54
Term debt to EBITDA	3.16	2.18	4.08	2.82	3.75	4.91	1.80
<b>Solvency (end of year at cost)</b>							
Number of farms	116	9	12	22	29	33	11
Total assets	3,101,200	396,339	750,832	1,065,523	2,301,679	4,460,995	9,978,105
Total liabilities	1,140,565	228,585	461,762	597,682	869,732	1,733,626	2,647,841
Net worth	1,960,635	167,755	289,069	467,840	1,431,947	2,727,369	7,330,264
Net worth change	31,705	30,110	27,448	54,756	-18,335	-76,974	449,513
Farm debt to asset ratio	40 %	63 %	64 %	59 %	40 %	42 %	31 %
Total debt to asset ratio	37 %	58 %	62 %	56 %	38 %	39 %	27 %
Change in earned net worth %	2 %	22 %	10 %	13 %	-1 %	-3 %	7 %
<b>Solvency (end of year at market)</b>							
Number of farms	116	9	12	22	29	33	11
Total assets	3,731,169	423,984	906,193	1,323,049	2,933,984	5,211,201	11,996,655
Total liabilities	1,140,565	228,585	461,762	597,682	869,732	1,733,626	2,647,841
Net worth	2,590,604	195,399	444,431	725,367	2,064,252	3,477,575	9,348,814
Total net worth change	138,043	43,230	29,375	88,699	112,504	31,062	821,127
Farm debt to asset ratio	33 %	60 %	51 %	46 %	31 %	36 %	25 %
Total debt to asset ratio	31 %	54 %	51 %	45 %	30 %	33 %	22 %
Change in total net worth %	6 %	28 %	7 %	14 %	6 %	1 %	10 %
<b>Nonfarm Information</b>							
Net nonfarm income	52,697	32,163	36,748	17,021	43,070	56,627	171,835
Farms reporting living expenses	35	2	4	5	12	11	1
Total family living expense	92,076	-	-	52,530	97,719	120,790	-
Total living, invest, cap. purch	139,616	-	-	60,271	146,917	204,035	-
<b>Crop Acres</b>							
Total crop acres	1,957	194	345	872	1,640	2,904	5,324
Total crop acres owned	413	21	60	230	452	540	1,001
Total crop acres cash rented	1,428	173	260	553	1,121	2,219	3,918
Total crop acres share rented	116	-	26	89	67	145	406
Machinery value per crop acre	469	280	321	281	397	497	560

**Financial Summary**  
**North Dakota Farm Business Management Education Program**  
**Region 2 - North Central North Dakota, 2023**  
**(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	116	27	23	25	21	20
<b>Income Statement</b>						
Gross cash farm income	934,735	399,484	677,686	1,397,188	1,191,304	1,105,464
Total cash farm expense	732,231	328,712	530,747	1,137,263	893,885	832,660
Net cash farm income	202,504	70,773	146,939	259,925	297,419	272,804
Inventory change	-69,290	26,281	-36,637	-53,039	-153,761	-167,481
Depreciation	-68,514	-20,525	-39,778	-125,527	-72,844	-90,535
Net farm income from operations	64,700	76,529	70,524	81,359	70,815	14,788
Gain or loss on capital sales	9,392	481	6,904	18,016	8,083	14,876
Average net farm income	74,092	77,010	77,428	99,375	78,898	29,664
Median net farm income	45,006	48,262	67,624	53,718	16,100	29,343
<b>Profitability (cost)</b>						
Rate of return on assets	1.6 %	6.9 %	2.6 %	1.8 %	1.4 %	-0.9 %
Rate of return on equity	-0.5 %	9.3 %	0.9 %	-0.5 %	-0.5 %	-2.8 %
Operating profit margin	4.5 %	13.3 %	6.5 %	5.1 %	4.5 %	-3.0 %
Asset turnover rate	34.6 %	51.8 %	39.8 %	34.9 %	31.9 %	28.6 %
<b>Profitability (market)</b>						
Rate of return on assets	4.5 %	8.6 %	3.0 %	6.1 %	5.0 %	1.3 %
Rate of return on equity	4.2 %	12.3 %	1.9 %	6.9 %	4.8 %	0.3 %
Operating profit margin	15.6 %	18.1 %	8.6 %	21.2 %	19.5 %	5.4 %
Asset turnover rate	28.7 %	47.4 %	34.9 %	28.8 %	25.6 %	23.2 %
<b>Liquidity &amp; Repayment (end of year)</b>						
Current assets	756,558	312,753	507,124	1,096,617	1,070,925	887,386
Current liabilities	393,392	168,162	268,272	770,897	414,523	347,269
Current ratio	1.92	1.86	1.89	1.42	2.58	2.56
Working capital	363,167	144,591	238,853	325,720	656,402	540,117
Change in working capital	-162,945	-32,578	-84,417	-300,817	-169,579	-249,941
Working capital to gross revenue	40.7 %	33.9 %	34.5 %	24.1 %	61.8 %	54.6 %
Working capital to oper expense	51.1 %	46.8 %	43.8 %	30.5 %	76.3 %	64.1 %
Debt coverage ratio	1.07	1.62	0.98	1.03	1.09	0.89
Term debt coverage ratio	1.09	1.79	0.98	1.04	1.12	0.87
Replacement coverage ratio	0.78	1.43	0.80	0.75	0.76	0.54
Term debt to EBITDA	3.16	2.18	3.57	3.49	2.98	3.16
<b>Solvency (end of year at cost)</b>						
Number of farms	116	27	23	25	21	20
Total assets	3,101,200	990,830	2,083,755	4,568,374	4,175,825	4,157,938
Total liabilities	1,140,565	554,534	994,563	1,960,040	1,237,465	973,521
Net worth	1,960,635	436,296	1,089,192	2,608,334	2,938,360	3,184,417
Net worth change	31,705	48,921	39,638	6,444	78,541	-18,260
Farm debt to asset ratio	40 %	57 %	48 %	47 %	35 %	26 %
Total debt to asset ratio	37 %	56 %	48 %	43 %	30 %	23 %
Change in earned net worth %	2 %	13 %	4 %	0 %	3 %	-1 %
<b>Solvency (end of year at market)</b>						
Number of farms	116	27	23	25	21	20
Total assets	3,731,169	1,076,780	2,386,606	5,536,495	5,165,110	5,098,546
Total liabilities	1,140,565	554,534	994,563	1,960,040	1,237,465	973,521
Net worth	2,590,604	522,246	1,392,043	3,576,455	3,927,644	4,125,025
Total net worth change	138,043	69,190	57,882	244,119	242,837	80,551
Farm debt to asset ratio	33 %	52 %	42 %	38 %	28 %	21 %
Total debt to asset ratio	31 %	51 %	42 %	35 %	24 %	19 %
Change in total net worth %	6 %	15 %	4 %	7 %	7 %	2 %
<b>Nonfarm Information</b>						
Net nonfarm income	52,697	27,131	42,127	45,813	85,214	73,826
Farms reporting living expenses	35	7	8	6	5	9
Total family living expense	92,076	91,481	97,048	123,002	57,068	86,951
Total living, invest, cap. purch	139,616	74,438	181,041	138,309	107,934	171,962
<b>Crop Acres</b>						
Total crop acres	1,957	904	1,638	2,756	2,517	2,160
Total crop acres owned	413	85	224	547	558	753
Total crop acres cash rented	1,428	708	1,269	2,045	1,875	1,342
Total crop acres share rented	116	110	144	164	84	66
Machinery value per crop acre	469	270	401	492	476	597

**Financial Summary**  
**North Dakota Farm Business Management Education Program**  
**Region 2 - North Central North Dakota, 2023**  
**(Farms Sorted By Farm Type)**

	<u>Avg. Of All Farms</u>	<u>Crop</u>	<u>Beef</u>	<u>Crop and Beef</u>
Number of farms	116	91	11	10
<b>Income Statement</b>				
Gross cash farm income	934,735	1,093,170	171,029	608,832
Total cash farm expense	732,231	844,460	151,712	556,335
Net cash farm income	202,504	248,710	19,317	52,497
Inventory change	-69,290	-111,633	75,104	124,596
Depreciation	-68,514	-81,857	-6,794	-35,393
Net farm income from operations	64,700	55,220	87,627	141,700
Gain or loss on capital sales	9,392	11,974	-2,455	2,926
Average net farm income	74,092	67,195	85,172	144,626
Median net farm income	45,006	38,076	46,424	79,044
<b>Profitability (cost)</b>				
Rate of return on assets	1.6 %	0.9 %	12.4 %	5.7 %
Rate of return on equity	-0.5 %	-1.3 %	29.0 %	7.0 %
Operating profit margin	4.5 %	2.7 %	40.0 %	18.3 %
Asset turnover rate	34.6 %	34.9 %	31.1 %	31.1 %
<b>Profitability (market)</b>				
Rate of return on assets	4.5 %	4.1 %	10.1 %	6.6 %
Rate of return on equity	4.2 %	3.7 %	15.1 %	8.1 %
Operating profit margin	15.6 %	14.2 %	45.3 %	25.5 %
Asset turnover rate	28.7 %	29.0 %	22.3 %	25.9 %
<b>Liquidity &amp; Repayment (end of year)</b>				
Current assets	756,558	862,779	226,422	609,730
Current liabilities	393,392	433,501	116,843	413,230
Current ratio	1.92	1.99	1.94	1.48
Working capital	363,167	429,278	109,580	196,499
Change in working capital	-162,945	-208,067	62,879	-40,199
Working capital to gross revenue	40.7 %	42.5 %	43.8 %	26.0 %
Working capital to oper expense	51.1 %	52.2 %	81.5 %	37.1 %
Debt coverage ratio	1.07	0.99	2.44	1.34
Term debt coverage ratio	1.09	0.99	2.69	1.40
Replacement coverage ratio	0.78	0.69	2.32	1.22
Term debt to EBITDA	3.16	3.19	2.68	3.10
<b>Solvency (end of year at cost)</b>				
Number of farms	116	91	11	10
Total assets	3,101,200	3,572,774	688,334	2,437,221
Total liabilities	1,140,565	1,245,986	425,530	1,227,330
Net worth	1,960,635	2,326,788	262,804	1,209,891
Net worth change	31,705	18,091	91,257	108,119
Farm debt to asset ratio	40 %	38 %	65 %	51 %
Total debt to asset ratio	37 %	35 %	62 %	50 %
Change in earned net worth %	2 %	1 %	53 %	10 %
<b>Solvency (end of year at market)</b>				
Number of farms	116	91	11	10
Total assets	3,731,169	4,290,243	929,637	2,926,890
Total liabilities	1,140,565	1,245,986	425,530	1,227,330
Net worth	2,590,604	3,044,256	504,107	1,699,559
Total net worth change	138,043	146,185	101,118	155,838
Farm debt to asset ratio	33 %	31 %	47 %	43 %
Total debt to asset ratio	31 %	29 %	46 %	42 %
Change in total net worth %	6 %	5 %	25 %	10 %
<b>Nonfarm Information</b>				
Net nonfarm income	52,697	58,756	36,953	28,887
Farms reporting living expenses	35	28	3	4
Total family living expense	92,076	101,517	-	-
Total living, invest, cap. purch	139,616	161,273	-	-
<b>Crop Acres</b>				
Total crop acres	1,957	2,282	346	1,346
Total crop acres owned	413	463	107	447
Total crop acres cash rented	1,428	1,695	129	796
Total crop acres share rented	116	124	109	103
Machinery value per crop acre	469	475	292	433

## 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.

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**  
**Region 2 - North Central North Dakota, 2023**  
**(Farms Sorted By Net Return)**

**Barley on Owned Land**

	<u>Avg. Of All Farms</u>
Number of farms	8
Acres	207.70
Yield per acre (bu.)	56.39
Operators share of yield %	100.00
Value per bu.	7.04
Other product return per acre	7.39
Total product return per acre	404.38
Crop insurance per acre	90.63
Gross return per acre	495.01
<b>Direct Expenses</b>	
Seed and plants	28.05
Fertilizer	95.74
Crop chemicals	40.31
Crop insurance	27.86
Fuel & oil	15.43
Repairs	46.58
Custom hire	3.07
Operating interest	7.01
Total direct expenses per acre	264.03
Return over direct exp per acre	230.98
<b>Overhead Expenses</b>	
Custom hire	2.80
Hired labor	6.13
Machinery leases	5.80
Building leases	0.27
RE & pers. property taxes	8.18
Farm insurance	6.29
Utilities	3.75
Dues & professional fees	1.63
Interest	62.11
Mach & bldg depreciation	37.75
Miscellaneous	2.02
Total overhead expenses per acre	136.72
Total dir & ovhd expenses per acre	400.75
Net return per acre	94.26
Government payments	-
Net return with govt pmts	94.26
Labor & management charge	28.96
Net return over lbr & mgt	65.30
<b>Cost of Production</b>	
Total direct expense per bu.	4.68
Total dir & ovhd exp per bu.	7.11
Less govt & other income	5.37
With labor & management	5.88
Net value per unit	7.04
Machinery cost per acre	113.27
Est. labor hours per acre	0.97

**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education Program**  
**Region 2 - North Central North Dakota, 2023**  
**(Farms Sorted By Net Return)**

**Barley on Cash Rent**

	<u>Avg. Of All Farms</u>
Number of farms	19
Acres	181.35
Yield per acre (bu.)	65.38
Operators share of yield %	100.00
Value per bu.	6.49
Total product return per acre	424.50
Crop insurance per acre	30.34
Other crop income per acre	0.88
Gross return per acre	455.72
<b>Direct Expenses</b>	
Seed and plants	30.37
Fertilizer	82.14
Crop chemicals	39.93
Crop insurance	23.86
Fuel & oil	17.70
Repairs	43.24
Custom hire	2.84
Land rent	58.98
Operating interest	4.91
Miscellaneous	0.68
Total direct expenses per acre	304.65
Return over direct exp per acre	151.08
<b>Overhead Expenses</b>	
Custom hire	1.97
Hired labor	8.06
Machinery leases	7.30
Building leases	0.50
Farm insurance	5.80
Utilities	3.51
Dues & professional fees	1.89
Interest	4.15
Mach & bldg depreciation	30.51
Miscellaneous	4.24
Total overhead expenses per acre	67.92
Total dir & ovhd expenses per acre	372.56
Net return per acre	83.16
Government payments	-
Net return with govt pmts	83.16
Labor & management charge	34.97
Net return over lbr & mgt	48.19
<b>Cost of Production</b>	
Total direct expense per bu.	4.66
Total dir & ovhd exp per bu.	5.70
Less govt & other income	5.22
With labor & management	5.76
Net value per unit	6.49
Machinery cost per acre	106.38
Est. labor hours per acre	1.36

**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education Program**  
**Region 2 - North Central North Dakota, 2023**  
**(Farms Sorted By Net Return)**

**Canola on Owned Land**

	<u>Avg. Of All Farms</u>
Number of farms	18
Acres	200.46
Yield per acre (cwt.)	19.67
Operators share of yield %	100.00
Value per cwt.	21.71
Total product return per acre	427.09
Crop insurance per acre	12.52
Other crop income per acre	2.04
Gross return per acre	441.65
<b>Direct Expenses</b>	
Seed and plants	67.41
Fertilizer	106.68
Crop chemicals	43.11
Crop insurance	24.84
Fuel & oil	17.76
Repairs	35.51
Custom hire	7.11
Machinery leases	3.66
Operating interest	7.03
Miscellaneous	1.53
Total direct expenses per acre	314.64
Return over direct exp per acre	127.01
<b>Overhead Expenses</b>	
Custom hire	3.78
Hired labor	4.12
Machinery leases	3.14
RE & pers. property taxes	11.99
Farm insurance	4.99
Utilities	3.13
Dues & professional fees	2.29
Interest	38.84
Mach & bldg depreciation	29.79
Miscellaneous	3.95
Total overhead expenses per acre	106.02
Total dir & ovhd expenses per acre	420.66
Net return per acre	20.99
Government payments	-
Net return with govt pmts	20.99
Labor & management charge	31.31
Net return over lbr & mgt	-10.32
<b>Cost of Production</b>	
Total direct expense per cwt.	16.00
Total dir & ovhd exp per cwt.	21.38
Less govt & other income	20.64
With labor & management	22.24
Net value per unit	21.71
Machinery cost per acre	102.81
Est. labor hours per acre	1.13



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

**Canola on Cash Rent**

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	39	7	8	8
Acres	488.54	299.84	615.59	293.81
Yield per acre (cwt.)	20.34	13.61	18.77	23.35
Operators share of yield %	100.00	100.00	100.00	100.00
Value per cwt.	21.97	19.22	22.47	23.25
Other product return per acre	2.93	0.00	11.33	-
Total product return per acre	449.86	261.52	433.11	542.82
Crop insurance per acre	16.88	58.16	4.40	13.52
Other crop income per acre	0.65	-	-	-
Gross return per acre	467.38	319.68	437.51	556.34
<b>Direct Expenses</b>				
Seed and plants	66.65	67.52	72.16	60.42
Fertilizer	116.33	132.90	101.40	117.64
Crop chemicals	49.19	77.94	46.51	33.47
Crop insurance	30.78	33.27	26.32	27.74
Fuel & oil	15.98	16.99	17.89	18.76
Repairs	37.55	41.87	33.51	44.49
Custom hire	9.70	11.91	4.10	12.60
Land rent	58.78	48.38	61.31	58.52
Machinery leases	1.24	7.50	0.74	0.18
Operating interest	5.39	14.02	5.05	3.27
Miscellaneous	1.86	3.23	3.87	0.27
Total direct expenses per acre	393.46	455.52	372.86	377.35
Return over direct exp per acre	73.93	-135.84	64.64	179.00
<b>Overhead Expenses</b>				
Custom hire	1.21	0.92	1.03	0.67
Hired labor	9.05	6.61	8.88	15.78
Machinery leases	2.12	3.58	4.44	1.18
Building leases	1.11	0.12	2.96	1.13
Farm insurance	4.56	7.24	2.11	6.02
Utilities	2.14	2.55	1.20	2.83
Dues & professional fees	1.49	1.19	0.65	2.16
Interest	2.31	6.04	0.99	3.37
Mach & bldg depreciation	42.28	29.02	25.07	20.89
Miscellaneous	2.81	5.94	1.64	1.99
Total overhead expenses per acre	69.09	63.21	48.98	56.02
Total dir & ovhd expenses per acre	462.55	518.73	421.84	433.37
Net return per acre	4.84	-199.05	15.67	122.98
Government payments	-	-	-	-
Net return with govt pmts	4.84	-199.05	15.67	122.98
Labor & management charge	34.46	36.10	43.66	35.77
Net return over lbr & mgt	-29.62	-235.14	-27.99	87.20
<b>Cost of Production</b>				
Total direct expense per cwt.	19.34	33.47	19.86	16.16
Total dir & ovhd exp per cwt.	22.74	38.11	22.47	18.56
Less govt & other income	21.73	33.84	21.64	17.98
With labor & management	23.42	36.49	23.96	19.51
Net value per unit	21.97	19.22	22.47	23.25
Machinery cost per acre	109.46	116.78	86.35	100.43
Est. labor hours per acre	1.08	1.47	1.09	1.29

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

**Canola on Share Rent**

	<u>Avg. Of All Farms</u>
Number of farms	5
Acres	224.23
Yield per acre (cwt.)	18.56
Operators share of yield %	71.08
Value per cwt.	23.57
Total product return per acre	311.02
Gross return per acre	311.02
<b>Direct Expenses</b>	
Seed and plants	49.56
Fertilizer	100.76
Crop chemicals	29.24
Crop insurance	24.72
Fuel & oil	12.34
Repairs	32.17
Custom hire	3.23
Machinery leases	20.00
Operating interest	4.66
Total direct expenses per acre	276.69
Return over direct exp per acre	34.33
<b>Overhead Expenses</b>	
Custom hire	0.54
Hired labor	3.36
Machinery leases	4.24
Building leases	0.32
Farm insurance	4.56
Utilities	1.85
Dues & professional fees	1.39
Interest	2.02
Mach & bldg depreciation	25.71
Miscellaneous	2.51
Total overhead expenses per acre	46.50
Total dir & ovhd expenses per acre	323.19
Net return per acre	-12.17
Government payments	-
Net return with govt pmts	-12.17
Labor & management charge	31.51
Net return over lbr & mgt	-43.68
<b>Cost of Production</b>	
Total direct expense per cwt.	20.97
Total dir & ovhd exp per cwt.	24.50
Less govt & other income	24.50
With labor & management	26.88
Net value per unit	23.57
Machinery cost per acre	99.14
Est. labor hours per acre	1.19

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

**Corn on Owned Land**

	<u>Avg. Of All Farms</u>
Number of farms	14
Acres	136.40
Yield per acre (bu.)	101.01
Operators share of yield %	100.00
Value per bu.	4.23
Other product return per acre	5.96
Total product return per acre	433.47
Crop insurance per acre	53.03
Other crop income per acre	2.16
Gross return per acre	488.66
<b>Direct Expenses</b>	
Seed and plants	77.18
Fertilizer	119.82
Crop chemicals	23.91
Crop insurance	24.14
Fuel & oil	33.29
Repairs	84.81
Custom hire	7.29
Operating interest	6.89
Total direct expenses per acre	377.34
Return over direct exp per acre	111.32
<b>Overhead Expenses</b>	
Custom hire	4.15
Hired labor	14.18
Machinery leases	8.39
Building leases	0.25
RE & pers. property taxes	9.07
Farm insurance	5.55
Utilities	4.43
Dues & professional fees	3.12
Interest	45.41
Mach & bldg depreciation	40.49
Miscellaneous	3.79
Total overhead expenses per acre	138.82
Total dir & ovhd expenses per acre	516.16
Net return per acre	-27.50
Government payments	-
Net return with govt pmts	-27.50
Labor & management charge	42.19
Net return over lbr & mgt	-69.69
<b>Cost of Production</b>	
Total direct expense per bu.	3.74
Total dir & ovhd exp per bu.	5.11
Less govt & other income	4.50
With labor & management	4.92
Net value per unit	4.23
Machinery cost per acre	181.96
Est. labor hours per acre	1.63

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

**Corn on Cash Rent**

	<u>Avg. Of All Farms</u>	<u>High 20%</u>
Number of farms	21	5
Acres	218.42	226.35
Yield per acre (bu.)	100.89	148.95
Operators share of yield %	100.00	100.00
Value per bu.	4.23	4.38
Other product return per acre	0.38	-
Total product return per acre	427.25	651.99
Crop insurance per acre	67.03	20.49
Other crop income per acre	0.51	-
Gross return per acre	494.79	672.48
<b>Direct Expenses</b>		
Seed and plants	88.17	95.90
Fertilizer	114.78	144.41
Crop chemicals	25.40	26.38
Crop insurance	32.83	34.11
Drying expense	0.53	2.15
Fuel & oil	23.24	11.98
Repairs	54.97	36.34
Custom hire	13.45	9.16
Land rent	54.29	61.23
Operating interest	10.15	2.36
Miscellaneous	0.43	0.76
Total direct expenses per acre	418.26	424.78
Return over direct exp per acre	76.53	247.70
<b>Overhead Expenses</b>		
Custom hire	1.14	1.02
Hired labor	7.56	5.37
Machinery leases	14.91	4.29
Building leases	0.52	-
Farm insurance	5.20	4.41
Utilities	4.18	4.71
Dues & professional fees	1.80	0.73
Interest	5.42	3.47
Mach & bldg depreciation	37.42	41.64
Miscellaneous	5.45	2.66
Total overhead expenses per acre	83.60	68.29
Total dir & ovhd expenses per acre	501.86	493.08
Net return per acre	-7.07	179.40
Government payments	-	-
Net return with govt pmts	-7.07	179.40
Labor & management charge	43.21	44.64
Net return over lbr & mgt	-50.27	134.76
<b>Cost of Production</b>		
Total direct expense per bu.	4.15	2.85
Total dir & ovhd exp per bu.	4.97	3.31
Less govt & other income	4.30	3.17
With labor & management	4.73	3.47
Net value per unit	4.23	4.38
Machinery cost per acre	148.09	106.61
Est. labor hours per acre	1.53	1.54

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

**Corn Silage on Owned Land**

	<u>Avg. Of All Farms</u>
Number of farms	5
Acres	91.10
Yield per acre (ton)	11.49
Operators share of yield %	100.00
Value per ton	36.87
Total product return per acre	423.53
Gross return per acre	423.53
<b>Direct Expenses</b>	
Seed and plants	60.83
Fertilizer	58.28
Crop chemicals	37.52
Crop insurance	16.43
Fuel & oil	35.84
Repairs	93.14
Custom hire	56.03
Operating interest	12.75
Total direct expenses per acre	370.81
Return over direct exp per acre	52.72
<b>Overhead Expenses</b>	
Custom hire	10.87
Hired labor	2.13
Machinery leases	3.77
Building leases	0.83
RE & pers. property taxes	10.31
Farm insurance	5.68
Utilities	2.33
Dues & professional fees	2.59
Interest	39.70
Mach & bldg depreciation	23.76
Miscellaneous	8.13
Total overhead expenses per acre	110.11
Total dir & ovhd expenses per acre	480.92
Net return per acre	-57.39
Government payments	-
Net return with govt pmts	-57.39
Labor & management charge	39.62
Net return over lbr & mgt	-97.01
<b>Cost of Production</b>	
Total direct expense per ton	32.28
Total dir & ovhd exp per ton	41.86
Less govt & other income	41.86
With labor & management	45.31
Net value per unit	36.87
Machinery cost per acre	230.32
Est. labor hours per acre	1.90

**Crop Enterprise Analysis**  
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**CRP on Owned Land**

	<u>Avg. Of All Farms</u>
Number of farms	6
Acres	117.11
Gross return per acre	74.70
<b>Direct Expenses</b>	
Crop chemicals	1.08
Fuel & oil	0.51
Repairs	1.14
Miscellaneous	0.05
Total direct expenses per acre	2.78
Return over direct exp per acre	71.92
<b>Overhead Expenses</b>	
Hired labor	0.35
RE & pers. property taxes	10.63
Farm insurance	0.45
Utilities	0.36
Interest	30.37
Mach & bldg depreciation	0.85
Miscellaneous	0.67
Total overhead expenses per acre	43.68
Total dir & ovhd expenses per acre	46.46
Net return per acre	28.24
Government payments	-
Net return with govt pmts	28.24
Labor & management charge	0.85
Net return over lbr & mgt	27.38
Net value per unit	1.00
Machinery cost per acre	2.94
Est. labor hours per acre	0.03

**Crop Enterprise Analysis**  
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**Hay, Alfalfa on Owned Land**

	<b>Avg. Of All Farms</b>
Number of farms	5
Acres	68.76
Yield per acre (ton)	2.09
Operators share of yield %	100.00
Value per ton	77.37
Total product return per acre	161.89
Gross return per acre	161.89
<b>Direct Expenses</b>	
Fertilizer	16.67
Crop insurance	6.98
Fuel & oil	13.79
Repairs	35.43
Custom hire	2.36
Operating interest	4.28
Total direct expenses per acre	79.50
Return over direct exp per acre	82.38
<b>Overhead Expenses</b>	
Custom hire	4.43
Hired labor	1.31
Machinery leases	1.28
RE & pers. property taxes	5.08
Farm insurance	3.78
Utilities	1.75
Dues & professional fees	1.22
Interest	20.48
Mach & bldg depreciation	8.97
Miscellaneous	0.21
Total overhead expenses per acre	48.51
Total dir & ovhd expenses per acre	128.02
Net return per acre	33.87
Government payments	-
Net return with govt pmts	33.87
Labor & management charge	13.36
Net return over lbr & mgt	20.51
<b>Cost of Production</b>	
Total direct expense per ton	37.99
Total dir & ovhd exp per ton	61.18
Less govt & other income	61.18
With labor & management	67.56
Net value per unit	77.37
Machinery cost per acre	69.82
Est. labor hours per acre	0.62

**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education Program**  
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**Hay, Alfalfa on Cash Rent**

	<u><b>Avg. Of All Farms</b></u>
Number of farms	5
Acres	125.21
Yield per acre (ton)	1.65
Operators share of yield %	100.00
Value per ton	99.11
Total product return per acre	163.95
Gross return per acre	163.95
<b>Direct Expenses</b>	
Seed and plants	2.04
Crop chemicals	1.45
Fuel & oil	9.83
Repairs	23.47
Land rent	36.89
Operating interest	3.95
Total direct expenses per acre	77.63
Return over direct exp per acre	86.33
<b>Overhead Expenses</b>	
Custom hire	0.52
Hired labor	5.68
Machinery leases	5.28
Farm insurance	2.70
Utilities	3.18
Dues & professional fees	2.05
Interest	9.73
Mach & bldg depreciation	14.16
Miscellaneous	0.77
Total overhead expenses per acre	44.08
Total dir & ovhd expenses per acre	121.71
Net return per acre	42.25
Government payments	-
Net return with govt pmts	42.25
Labor & management charge	13.26
Net return over lbr & mgt	28.99
<b>Cost of Production</b>	
Total direct expense per ton	46.93
Total dir & ovhd exp per ton	73.57
Less govt & other income	73.57
With labor & management	81.59
Net value per unit	99.11
Machinery cost per acre	61.05
Est. labor hours per acre	0.65



**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education Program**  
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**Hay, Grass on Cash Rent**

	<u><b>Avg. Of All Farms</b></u>
Number of farms	5
Acres	66.17
Yield per acre (ton)	1.30
Operators share of yield %	100.00
Value per ton	81.51
Total product return per acre	105.62
Gross return per acre	105.62
<b>Direct Expenses</b>	
Fuel & oil	11.05
Repairs	18.28
Land rent	12.96
Operating interest	7.17
Total direct expenses per acre	49.47
Return over direct exp per acre	56.15
<b>Overhead Expenses</b>	
Custom hire	1.81
Farm insurance	0.72
Utilities	0.47
Dues & professional fees	1.14
Interest	1.33
Mach & bldg depreciation	7.09
Miscellaneous	1.06
Total overhead expenses per acre	13.63
Total dir & ovhd expenses per acre	63.10
Net return per acre	42.52
Government payments	-
Net return with govt pmts	42.52
Labor & management charge	16.05
Net return over lbr & mgt	26.47
<b>Cost of Production</b>	
Total direct expense per ton	38.18
Total dir & ovhd exp per ton	48.69
Less govt & other income	48.69
With labor & management	61.08
Net value per unit	81.51
Machinery cost per acre	39.60
Est. labor hours per acre	0.70

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

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

	<b>Avg. Of All Farms</b>
Number of farms	7
Acres	139.29
Yield per acre (ton)	1.28
Operators share of yield %	100.00
Value per ton	80.73
Total product return per acre	103.34
Gross return per acre	103.34
<b>Direct Expenses</b>	
Fuel & oil	13.42
Repairs	17.12
Land rent	19.39
Operating interest	8.34
Total direct expenses per acre	58.27
Return over direct exp per acre	45.08
<b>Overhead Expenses</b>	
Custom hire	0.61
Hired labor	0.48
Machinery leases	0.44
Farm insurance	1.64
Utilities	1.73
Dues & professional fees	3.06
Interest	5.74
Mach & bldg depreciation	7.00
Total overhead expenses per acre	20.69
Total dir & ovhd expenses per acre	78.96
Net return per acre	24.38
Government payments	-
Net return with govt pmts	24.38
Labor & management charge	20.64
Net return over lbr & mgt	3.74
<b>Cost of Production</b>	
Total direct expense per ton	45.52
Total dir & ovhd exp per ton	61.68
Less govt & other income	61.68
With labor & management	77.81
Net value per unit	80.73
Machinery cost per acre	44.19
Est. labor hours per acre	1.00

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

**Hay, Small Grain on Owned Land**

	<u>Avg. Of All Farms</u>
Number of farms	5
Acres	51.16
Yield per acre (ton)	1.79
Operators share of yield %	100.00
Value per ton	70.20
Other product return per acre	2.74
Total product return per acre	128.50
Crop insurance per acre	39.01
Gross return per acre	167.51
<b>Direct Expenses</b>	
Seed and plants	22.91
Fertilizer	34.04
Crop chemicals	13.34
Crop insurance	1.21
Fuel & oil	17.30
Repairs	37.26
Custom hire	3.78
Operating interest	3.36
Total direct expenses per acre	133.20
Return over direct exp per acre	34.32
<b>Overhead Expenses</b>	
Custom hire	2.03
Hired labor	4.12
Machinery leases	1.89
Building leases	0.35
RE & pers. property taxes	7.50
Farm insurance	4.79
Utilities	2.16
Dues & professional fees	1.40
Interest	22.97
Mach & bldg depreciation	11.79
Miscellaneous	2.72
Total overhead expenses per acre	61.72
Total dir & ovhd expenses per acre	194.92
Net return per acre	-27.41
Government payments	-
Net return with govt pmts	-27.41
Labor & management charge	24.02
Net return over lbr & mgt	-51.43
<b>Cost of Production</b>	
Total direct expense per ton	74.35
Total dir & ovhd exp per ton	108.81
Less govt & other income	85.50
With labor & management	98.91
Net value per unit	70.20
Machinery cost per acre	78.34
Est. labor hours per acre	1.28

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

**Hay, Small Grain on Cash Rent**

	<u>Avg. Of All Farms</u>
Number of farms	5
Acres	102.24
Yield per acre (ton)	1.68
Operators share of yield %	100.00
Value per ton	53.24
Total product return per acre	89.46
Crop insurance per acre	11.89
Gross return per acre	101.34
<b>Direct Expenses</b>	
Seed and plants	31.59
Fertilizer	26.88
Crop chemicals	2.65
Fuel & oil	8.08
Repairs	11.99
Land rent	41.24
Operating interest	4.04
Total direct expenses per acre	126.48
Return over direct exp per acre	-25.13
<b>Overhead Expenses</b>	
Hired labor	0.32
Machinery leases	13.26
Farm insurance	2.32
Utilities	1.70
Dues & professional fees	0.78
Interest	4.92
Mach & bldg depreciation	8.49
Miscellaneous	1.83
Total overhead expenses per acre	33.62
Total dir & ovhd expenses per acre	160.10
Net return per acre	-58.75
Government payments	-
Net return with govt pmts	-58.75
Labor & management charge	20.23
Net return over lbr & mgt	-78.99
<b>Cost of Production</b>	
Total direct expense per ton	75.27
Total dir & ovhd exp per ton	95.27
Less govt & other income	88.20
With labor & management	100.24
Net value per unit	53.24
Machinery cost per acre	46.89
Est. labor hours per acre	0.72

**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education Program**  
**Region 2 - North Central North Dakota, 2023**  
**(Farms Sorted By Net Return)**

**Oats on Cash Rent**

	<u>Avg. Of All Farms</u>
Number of farms	9
Acres	313.46
Yield per acre (bu.)	117.23
Operators share of yield %	100.00
Value per bu.	3.93
Other product return per acre	2.68
Total product return per acre	463.38
Crop insurance per acre	9.98
Gross return per acre	473.36
<b>Direct Expenses</b>	
Seed and plants	26.47
Fertilizer	104.05
Crop chemicals	44.21
Crop insurance	34.61
Fuel & oil	20.20
Repairs	38.71
Custom hire	8.45
Land rent	58.03
Operating interest	7.69
Miscellaneous	0.54
Total direct expenses per acre	342.96
Return over direct exp per acre	130.40
<b>Overhead Expenses</b>	
Custom hire	1.51
Hired labor	8.46
Machinery leases	0.74
Building leases	0.23
Farm insurance	5.61
Utilities	2.86
Dues & professional fees	1.70
Interest	2.96
Mach & bldg depreciation	55.65
Miscellaneous	3.65
Total overhead expenses per acre	83.37
Total dir & ovhd expenses per acre	426.33
Net return per acre	47.03
Government payments	-
Net return with govt pmts	47.03
Labor & management charge	32.51
Net return over lbr & mgt	14.52
<b>Cost of Production</b>	
Total direct expense per bu.	2.93
Total dir & ovhd exp per bu.	3.64
Less govt & other income	3.53
With labor & management	3.81
Net value per unit	3.93
Machinery cost per acre	124.26
Est. labor hours per acre	1.07

**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education Program**  
**Region 2 - North Central North Dakota, 2023**  
**(Farms Sorted By Net Return)**

**Pasture on Owned Land**

	<b>Avg. Of All Farms</b>
Number of farms	10
Acres	300.48
Yield per acre (aum)	1.08
Operators share of yield %	100.00
Value per aum	26.81
Total product return per acre	29.05
Gross return per acre	29.05
<b>Direct Expenses</b>	
Crop chemicals	0.22
Crop insurance	0.90
Fuel & oil	0.63
Repairs	1.44
Miscellaneous	0.17
Total direct expenses per acre	3.35
Return over direct exp per acre	25.70
<b>Overhead Expenses</b>	
Machinery leases	0.18
RE & pers. property taxes	3.58
Interest	7.71
Mach & bldg depreciation	0.44
Miscellaneous	0.59
Total overhead expenses per acre	12.50
Total dir & ovhd expenses per acre	15.85
Net return per acre	13.20
Government payments	-
Net return with govt pmts	13.20
Labor & management charge	0.91
Net return over lbr & mgt	12.29
<b>Cost of Production</b>	
Total direct expense per aum	3.09
Total dir & ovhd exp per aum	14.63
Less govt & other income	14.63
With labor & management	15.47
Net value per unit	26.81
Machinery cost per acre	3.00
Est. labor hours per acre	0.05

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**Pasture on Cash Rent**

	<b>Avg. Of All Farms</b>
Number of farms	18
Acres	893.16
Yield per acre (aum)	0.79
Operators share of yield %	100.00
Value per aum	23.01
Other product return per acre	0.09
Total product return per acre	18.23
Gross return per acre	18.23
<b>Direct Expenses</b>	
Fuel & oil	0.56
Repairs	1.06
Land rent	17.77
Miscellaneous	0.56
Total direct expenses per acre	19.96
Return over direct exp per acre	-1.73
<b>Overhead Expenses</b>	
Machinery leases	0.20
Miscellaneous	1.08
Total overhead expenses per acre	1.28
Total dir & ovhd expenses per acre	21.23
Net return per acre	-3.00
Government payments	-
Net return with govt pmts	-3.00
Labor & management charge	0.95
Net return over lbr & mgt	-3.96
<b>Cost of Production</b>	
Total direct expense per aum	25.32
Total dir & ovhd exp per aum	26.94
Less govt & other income	26.82
With labor & management	28.03
Net value per unit	23.01
Machinery cost per acre	2.43
Est. labor hours per acre	0.05

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**Peas, Dry Edible on Cash Rent**

	<u>Avg. Of All Farms</u>
Number of farms	5
Acres	365.95
Yield per acre (bu.)	34.66
Operators share of yield %	100.00
Value per bu.	8.90
Total product return per acre	308.38
Crop insurance per acre	20.97
Other crop income per acre	7.66
Gross return per acre	337.01
<b>Direct Expenses</b>	
Seed and plants	48.09
Fertilizer	11.46
Crop chemicals	41.31
Crop insurance	17.86
Fuel & oil	16.93
Repairs	32.89
Custom hire	5.41
Land rent	44.37
Operating interest	7.11
Miscellaneous	17.06
Total direct expenses per acre	242.49
Return over direct exp per acre	94.53
<b>Overhead Expenses</b>	
Custom hire	4.39
Hired labor	2.87
Machinery leases	8.66
Building leases	2.91
Farm insurance	3.55
Utilities	1.63
Dues & professional fees	0.37
Interest	0.95
Mach & bldg depreciation	17.76
Miscellaneous	0.99
Total overhead expenses per acre	44.09
Total dir & ovhd expenses per acre	286.57
Net return per acre	50.44
Government payments	-
Net return with govt pmts	50.44
Labor & management charge	44.78
Net return over lbr & mgt	5.66
<b>Cost of Production</b>	
Total direct expense per bu.	7.00
Total dir & ovhd exp per bu.	8.27
Less govt & other income	7.44
With labor & management	8.73
Net value per unit	8.90
Machinery cost per acre	85.54
Est. labor hours per acre	0.97



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**Prevented Planting on Owned Land**

	<b>Avg. Of All Farms</b>
Number of farms	11
Acres	74.68
Yield per acre	-
Operators share of yield %	-
Value per 0	-
Total product return per acre	-
Crop insurance per acre	235.01
Other crop income per acre	2.28
Gross return per acre	237.29
<b>Direct Expenses</b>	
Fertilizer	6.37
Crop chemicals	15.08
Crop insurance	18.83
Fuel & oil	5.98
Repairs	14.38
Custom hire	0.02
Operating interest	1.78
Miscellaneous	0.85
Total direct expenses per acre	63.30
Return over direct exp per acre	173.99
<b>Overhead Expenses</b>	
Hired labor	5.60
Machinery leases	0.34
RE & pers. property taxes	7.67
Farm insurance	6.03
Utilities	3.63
Dues & professional fees	3.03
Interest	57.00
Mach & bldg depreciation	13.16
Miscellaneous	2.20
Total overhead expenses per acre	98.67
Total dir & ovhd expenses per acre	161.97
Net return per acre	75.31
Government payments	-
Net return with govt pmts	75.31
Labor & management charge	10.36
Net return over lbr & mgt	64.96
Net value per unit	-
Machinery cost per acre	37.80
Est. labor hours per acre	0.33

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**Prevented Planting on Cash Rent**

	<u>Avg. Of All Farms</u>	<u>High 20%</u>
Number of farms	21	5
Acres	186.01	214.10
Yield per acre	-	-
Operators share of yield %	-	-
Value per 0	-	-
Total product return per acre	-	-
Crop insurance per acre	227.36	270.86
Other crop income per acre	1.13	4.11
Gross return per acre	228.49	274.97
<b>Direct Expenses</b>		
Fertilizer	4.06	-
Crop chemicals	11.91	-
Crop insurance	18.59	15.79
Fuel & oil	5.79	5.27
Repairs	12.32	12.89
Land rent	54.15	43.41
Machinery leases	0.84	-
Operating interest	2.37	3.55
Miscellaneous	0.09	-
Total direct expenses per acre	110.12	80.91
Return over direct exp per acre	118.37	194.06
<b>Overhead Expenses</b>		
Custom hire	0.97	1.26
Hired labor	3.91	3.55
Machinery leases	0.92	1.74
Farm insurance	5.38	5.17
Utilities	3.29	4.55
Dues & professional fees	2.11	3.75
Interest	5.11	11.64
Mach & bldg depreciation	13.72	9.56
Miscellaneous	3.25	4.08
Total overhead expenses per acre	38.65	45.30
Total dir & ovhd expenses per acre	148.77	126.21
Net return per acre	79.71	148.76
Government payments	-	-
Net return with govt pmts	79.71	148.76
Labor & management charge	9.70	9.00
Net return over lbr & mgt	70.02	139.76
Net value per unit	-	-
Machinery cost per acre	38.49	41.23
Est. labor hours per acre	0.34	0.37

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**Soybeans on Owned Land**

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	36	7	7	8
Acres	258.04	245.42	302.64	255.20
Yield per acre (bu.)	27.27	21.23	23.05	38.97
Operators share of yield %	100.00	100.00	100.00	100.00
Value per bu.	12.20	12.44	12.54	12.28
Other product return per acre	5.29	-	23.20	-
Total product return per acre	337.93	264.16	312.36	478.52
Crop insurance per acre	41.82	80.22	87.42	8.28
Other crop income per acre	0.41	1.79	-	-
Gross return per acre	380.16	346.17	399.77	486.80
<b>Direct Expenses</b>				
Seed and plants	73.48	104.55	67.25	75.86
Fertilizer	20.27	31.68	21.50	16.42
Crop chemicals	43.51	65.60	43.89	36.38
Crop insurance	22.87	29.46	26.12	14.14
Fuel & oil	15.93	13.97	15.30	15.93
Repairs	34.77	55.88	30.72	22.90
Custom hire	3.06	6.75	1.02	6.36
Machinery leases	1.61	2.03	5.40	-
Operating interest	5.02	13.30	5.45	1.10
Miscellaneous	0.67	2.31	-	-
Total direct expenses per acre	221.18	325.52	216.66	189.09
Return over direct exp per acre	158.98	20.65	183.12	297.71
<b>Overhead Expenses</b>				
Custom hire	0.90	0.87	0.80	1.99
Hired labor	8.46	9.91	7.84	4.69
Machinery leases	2.87	1.61	4.30	0.36
RE & pers. property taxes	10.07	10.44	10.23	9.33
Farm insurance	6.07	7.60	5.21	4.55
Utilities	3.71	3.31	4.54	3.17
Dues & professional fees	1.73	2.33	1.50	1.07
Interest	36.42	86.90	30.42	12.76
Mach & bldg depreciation	37.95	37.99	47.89	31.69
Miscellaneous	3.09	3.02	2.07	4.11
Total overhead expenses per acre	111.26	163.98	114.78	73.71
Total dir & ovhd expenses per acre	332.44	489.50	331.44	262.80
Net return per acre	47.72	-143.33	68.33	224.00
Government payments	-	-	-	-
Net return with govt pmts	47.72	-143.33	68.33	224.00
Labor & management charge	30.06	27.84	33.25	29.02
Net return over lbr & mgt	17.65	-171.17	35.09	194.98
<b>Cost of Production</b>				
Total direct expense per bu.	8.11	15.33	9.40	4.85
Total dir & ovhd exp per bu.	12.19	23.06	14.38	6.74
Less govt & other income	10.45	19.19	9.58	6.53
With labor & management	11.55	20.50	11.02	7.28
Net value per unit	12.20	12.44	12.54	12.28
Machinery cost per acre	99.14	126.18	105.69	80.01
Est. labor hours per acre	1.16	1.21	1.16	1.02

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**Soybeans on Cash Rent**

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	58	11	11	12
Acres	532.97	578.07	499.81	463.43
Yield per acre (bu.)	29.05	19.46	26.98	39.22
Operators share of yield %	100.00	100.00	100.00	100.00
Value per bu.	12.08	11.53	11.77	12.34
Total product return per acre	350.92	224.50	317.58	484.20
Crop insurance per acre	27.44	23.53	22.62	7.10
Other crop income per acre	1.03	-	-	3.31
Gross return per acre	379.39	248.03	340.21	494.60
<b>Direct Expenses</b>				
Seed and plants	67.79	79.29	44.71	68.41
Fertilizer	16.29	20.48	13.30	11.22
Crop chemicals	41.90	43.28	39.07	39.00
Crop insurance	23.08	20.90	15.04	21.45
Fuel & oil	16.54	17.08	15.15	14.75
Repairs	38.17	44.30	29.40	32.58
Custom hire	2.55	2.15	0.10	3.90
Land rent	57.88	60.64	58.29	57.61
Machinery leases	1.27	0.05	1.13	0.03
Operating interest	6.90	9.11	6.47	6.95
Miscellaneous	1.13	1.12	0.50	0.90
Total direct expenses per acre	273.51	298.40	223.16	256.80
Return over direct exp per acre	105.88	-50.38	117.05	237.80
<b>Overhead Expenses</b>				
Custom hire	1.18	1.39	1.84	0.61
Hired labor	9.24	15.00	3.75	3.03
Machinery leases	5.95	3.77	9.14	6.18
Building leases	0.43	0.24	0.72	0.26
Farm insurance	5.35	6.60	4.18	4.39
Utilities	3.29	2.10	3.42	3.22
Dues & professional fees	1.81	1.25	0.94	2.14
Interest	3.90	3.84	2.54	3.68
Mach & bldg depreciation	32.55	39.52	20.18	18.18
Miscellaneous	2.82	2.50	3.41	2.24
Total overhead expenses per acre	66.51	76.21	50.10	43.92
Total dir & ovhd expenses per acre	340.03	374.62	273.25	300.72
Net return per acre	39.37	-126.59	66.95	193.88
Government payments	-	-	-	-
Net return with govt pmts	39.37	-126.59	66.95	193.88
Labor & management charge	31.31	29.85	30.59	28.56
Net return over lbr & mgt	8.05	-156.44	36.36	165.32
<b>Cost of Production</b>				
Total direct expense per bu.	9.41	15.33	8.27	6.55
Total dir & ovhd exp per bu.	11.70	19.25	10.13	7.67
Less govt & other income	10.72	18.04	9.29	7.40
With labor & management	11.80	19.57	10.42	8.13
Net value per unit	12.08	11.53	11.77	12.34
Machinery cost per acre	100.14	110.23	78.78	79.24
Est. labor hours per acre	1.19	1.39	1.13	1.29

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**Soybeans on Share Rent**

	<u>Avg. Of All Farms</u>
Number of farms	10
Acres	272.01
Yield per acre (bu.)	27.86
Operators share of yield %	74.08
Value per bu.	12.63
Total product return per acre	260.76
Crop insurance per acre	63.06
Gross return per acre	323.82
<b>Direct Expenses</b>	
Seed and plants	60.87
Fertilizer	23.61
Crop chemicals	33.50
Crop insurance	25.51
Fuel & oil	13.56
Repairs	22.02
Custom hire	2.18
Machinery leases	3.03
Operating interest	2.50
Miscellaneous	0.15
Total direct expenses per acre	186.94
Return over direct exp per acre	136.89
<b>Overhead Expenses</b>	
Custom hire	1.73
Hired labor	12.12
Machinery leases	2.93
Building leases	0.64
Farm insurance	5.65
Utilities	3.24
Dues & professional fees	1.02
Interest	1.86
Mach & bldg depreciation	57.66
Miscellaneous	1.04
Total overhead expenses per acre	87.89
Total dir & ovhd expenses per acre	274.82
Net return per acre	49.00
Government payments	-
Net return with govt pmts	49.00
Labor & management charge	28.14
Net return over lbr & mgt	20.86
<b>Cost of Production</b>	
Total direct expense per bu.	9.06
Total dir & ovhd exp per bu.	13.31
Less govt & other income	10.26
With labor & management	11.62
Net value per unit	12.63
Machinery cost per acre	101.89
Est. labor hours per acre	0.93

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**Sunflowers on Cash Rent**

	<u>Avg. Of All Farms</u>
Number of farms	6
Acres	238.63
Yield per acre (cwt.)	18.58
Operators share of yield %	100.00
Value per cwt.	22.08
Total product return per acre	410.13
Crop insurance per acre	20.24
Gross return per acre	430.37
<b>Direct Expenses</b>	
Seed and plants	37.64
Fertilizer	78.17
Crop chemicals	38.76
Crop insurance	26.45
Fuel & oil	20.65
Repairs	42.12
Custom hire	4.34
Land rent	55.76
Operating interest	9.08
Miscellaneous	7.25
Total direct expenses per acre	320.21
Return over direct exp per acre	110.16
<b>Overhead Expenses</b>	
Custom hire	2.33
Hired labor	18.41
Machinery leases	6.77
Farm insurance	5.38
Utilities	3.59
Dues & professional fees	2.37
Interest	10.44
Mach & bldg depreciation	40.08
Miscellaneous	4.01
Total overhead expenses per acre	93.37
Total dir & ovhd expenses per acre	413.58
Net return per acre	16.79
Government payments	-
Net return with govt pmts	16.79
Labor & management charge	25.42
Net return over lbr & mgt	-8.63
<b>Cost of Production</b>	
Total direct expense per cwt.	17.23
Total dir & ovhd exp per cwt.	22.26
Less govt & other income	21.17
With labor & management	22.54
Net value per unit	22.08
Machinery cost per acre	121.30
Est. labor hours per acre	1.08

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**Wheat, Spring on Owned Land**

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	41	8	8	9
Acres	295.54	324.49	278.03	365.09
Yield per acre (bu.)	55.85	51.84	46.17	69.08
Operators share of yield %	100.00	100.00	100.00	100.00
Value per bu.	6.95	6.73	6.91	7.22
Other product return per acre	2.82	-	3.94	-
Total product return per acre	390.89	349.04	323.00	499.10
Crop insurance per acre	30.66	20.53	26.57	69.87
Other crop income per acre	1.02	2.20	2.36	0.41
Gross return per acre	422.56	371.77	351.93	569.38
<b>Direct Expenses</b>				
Seed and plants	24.03	30.96	19.24	21.97
Fertilizer	102.32	123.70	92.61	109.43
Crop chemicals	43.81	50.90	42.37	39.76
Crop insurance	25.93	38.58	18.30	23.75
Fuel & oil	16.90	17.86	18.74	15.72
Repairs	34.14	56.96	40.45	21.33
Custom hire	4.23	5.66	1.49	7.53
Machinery leases	2.81	0.27	-	2.64
Operating interest	4.39	9.46	1.92	1.97
Miscellaneous	1.09	3.95	-	0.13
Total direct expenses per acre	259.66	338.30	235.12	244.24
Return over direct exp per acre	162.90	33.47	116.81	325.14
<b>Overhead Expenses</b>				
Custom hire	1.42	0.00	3.40	0.18
Hired labor	8.70	13.95	4.82	11.14
Machinery leases	3.51	1.63	1.59	2.56
Building leases	0.57	1.28	0.48	0.70
RE & pers. property taxes	9.59	9.01	9.56	10.46
Farm insurance	5.73	5.75	4.96	5.41
Utilities	3.83	2.69	3.39	3.70
Dues & professional fees	2.04	3.18	1.33	2.18
Interest	33.62	56.88	12.94	25.62
Mach & bldg depreciation	33.67	30.12	26.98	50.09
Miscellaneous	2.99	4.11	2.49	1.29
Total overhead expenses per acre	105.66	128.61	71.95	113.33
Total dir & ovhd expenses per acre	365.32	466.90	307.06	357.57
Net return per acre	57.24	-95.14	44.86	211.81
Government payments	-	-	-	-
Net return with govt pmts	57.24	-95.14	44.86	211.81
Labor & management charge	32.99	30.48	30.44	32.29
Net return over lbr & mgt	24.25	-125.62	14.42	179.51
<b>Cost of Production</b>				
Total direct expense per bu.	4.65	6.53	5.09	3.54
Total dir & ovhd exp per bu.	6.54	9.01	6.65	5.18
Less govt & other income	5.92	8.57	5.94	4.16
With labor & management	6.51	9.16	6.60	4.63
Net value per unit	6.95	6.73	6.91	7.22
Machinery cost per acre	98.72	116.82	93.73	101.67
Est. labor hours per acre	1.25	1.05	1.33	1.22

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**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	57	11	12	12
Acres	619.54	522.57	734.98	572.37
Yield per acre (bu.)	55.65	44.31	61.86	62.55
Operators share of yield %	100.00	100.00	100.00	100.00
Value per bu.	7.23	7.09	7.14	7.83
Other product return per acre	2.96	6.02	-	10.19
Total product return per acre	405.49	320.39	441.94	499.73
Crop insurance per acre	12.19	10.69	6.12	12.27
Other crop income per acre	0.83	-	2.52	-
Gross return per acre	418.51	331.08	450.58	512.00
<b>Direct Expenses</b>				
Seed and plants	25.96	30.95	22.37	24.50
Fertilizer	110.03	122.22	110.12	106.04
Crop chemicals	49.89	54.01	55.48	46.91
Crop insurance	28.74	31.03	26.57	30.94
Fuel & oil	16.77	17.63	20.42	15.88
Repairs	33.40	42.48	39.25	23.00
Custom hire	6.74	8.98	7.18	9.17
Land rent	55.91	51.99	62.04	57.68
Machinery leases	0.61	-	0.16	2.04
Operating interest	6.22	12.34	3.76	6.31
Miscellaneous	1.34	1.62	0.02	1.50
Total direct expenses per acre	335.61	373.25	347.36	323.98
Return over direct exp per acre	82.90	-42.17	103.22	188.02
<b>Overhead Expenses</b>				
Custom hire	1.77	1.24	2.43	1.53
Hired labor	8.52	11.77	12.29	8.39
Machinery leases	4.29	9.55	0.48	3.93
Building leases	0.57	0.65	0.44	0.49
Farm insurance	5.38	3.76	5.03	4.81
Utilities	3.20	3.37	2.58	3.76
Dues & professional fees	1.97	1.55	1.45	1.50
Interest	4.64	8.67	1.56	2.47
Mach & bldg depreciation	36.63	28.72	56.50	35.96
Miscellaneous	4.38	6.33	4.33	1.59
Total overhead expenses per acre	71.36	75.61	87.09	64.43
Total dir & ovhd expenses per acre	406.98	448.87	434.45	388.41
Net return per acre	11.54	-117.78	16.13	123.59
Government payments	-	-	-	-
Net return with govt pmts	11.54	-117.78	16.13	123.59
Labor & management charge	30.64	28.18	30.37	31.12
Net return over lbr & mgt	-19.10	-145.96	-14.24	92.47
<b>Cost of Production</b>				
Total direct expense per bu.	6.03	8.42	5.62	5.18
Total dir & ovhd exp per bu.	7.31	10.13	7.02	6.21
Less govt & other income	7.03	9.75	6.88	5.85
With labor & management	7.58	10.39	7.37	6.35
Net value per unit	7.23	7.09	7.14	7.83
Machinery cost per acre	102.29	114.75	122.99	92.41
Est. labor hours per acre	1.10	0.95	0.99	1.46



**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education Program**  
**Region 2 - North Central North Dakota, 2023**  
**(Farms Sorted By Net Return)**

**Wheat, Spring on Share Rent**

	<u>Avg. Of All Farms</u>
Number of farms	13
Acres	290.56
Yield per acre (bu.)	58.92
Operators share of yield %	69.51
Value per bu.	7.25
Total product return per acre	296.92
Crop insurance per acre	0.31
Other crop income per acre	4.48
Gross return per acre	301.71
<b>Direct Expenses</b>	
Seed and plants	20.48
Fertilizer	87.14
Crop chemicals	39.83
Crop insurance	20.04
Fuel & oil	14.56
Repairs	25.75
Custom hire	2.66
Machinery leases	3.57
Operating interest	2.73
Miscellaneous	0.12
Total direct expenses per acre	216.87
Return over direct exp per acre	84.84
<b>Overhead Expenses</b>	
Custom hire	1.38
Hired labor	10.48
Machinery leases	1.89
Building leases	0.52
Farm insurance	5.78
Utilities	2.89
Dues & professional fees	1.26
Interest	1.87
Mach & bldg depreciation	45.87
Miscellaneous	2.24
Total overhead expenses per acre	74.18
Total dir & ovhd expenses per acre	291.05
Net return per acre	10.66
Government payments	-
Net return with govt pmts	10.66
Labor & management charge	26.54
Net return over lbr & mgt	-15.88
<b>Cost of Production</b>	
Total direct expense per bu.	5.30
Total dir & ovhd exp per bu.	7.11
Less govt & other income	6.99
With labor & management	7.64
Net value per unit	7.25
Machinery cost per acre	94.84
Est. labor hours per acre	1.03

## 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**  
**Region 2 - North Central North Dakota, 2023**  
**(Farms Sorted By Net Return)**

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

	<u>Avg. Of All Farms</u>	
Number of farms	11	
	Quantity	Value
Beef Calves sold (lb)	33.68	93.23
Transferred out (lb)	30.93	79.74
Cull sales (lb)	18.31	28.39
Government payments		5.57
Other income		0.22
Purchased (lb)	-13.22	-52.23
Transferred in (lb)	-22.96	-46.96
Inventory change (lb)	53.26	103.69
Gross margin		211.65
<b>Direct Expenses</b>		
Protein Vit Minerals (lb.)	72.48	4.19
Complete Ration (lb.)	437.00	15.24
Corn Silage (lb.)	436.11	7.17
Hay, Alfalfa (lb.)	122.33	5.07
Hay, Grass (lb.)	733.72	21.60
Pasture (aum)	0.44	11.12
Straw (lb.)	60.93	2.04
Other feed stuffs (lb)	10.66	3.35
Veterinary		4.17
Fuel & oil		4.40
Repairs		7.52
Operating interest		1.50
Miscellaneous		1.24
Total direct expenses		88.63
Return over direct expense		123.02
<b>Overhead Expenses</b>		
Hired labor		0.47
Interest		3.31
Mach & bldg depreciation		4.22
Miscellaneous		4.36
Total overhead expenses		12.37
Total dir & ovhd expenses		100.99
Net return		110.65
Labor & management charge		12.62
Net return over lbr & mgt		98.04
<b>Cost of Production Per Cwt. Produced</b>		
Total direct expense per unit		88.63
Total dir& ovhd expense per unit		100.99
With other revenue adjustments		132.68
With labor and management		145.29
Est. labor hours per unit		0.49
<b>Other Information</b>		
Number of cows		163.5
Pregnancy percentage		92.8
Pregnancy loss percentage		4.3
Culling percentage		12.8
Calving percentage		88.8
Weaning percentage		85.3
Calves sold per cow		0.63
Calf death loss percent		8.3
Cow death loss percent		3.2
Cows per FTE		1,126.3
Average weaning weight		498
Lb. weaned/exposed female		425
Feed cost per cow		357.40
Avg wgt/ Beef Calves sold		514
Avg price / cwt.		276.77

**Livestock Enterprise Analysis**  
**North Dakota Farm Business Management Education Program**  
**Region 2 - North Central North Dakota, 2023**  
**(Farms Sorted By Net Return)**

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

	<b>Avg. Of All Farms</b>	
Number of farms	11	
	Quantity	Value
Beef Calves sold (lb)	172.5	477.44
Transferred out (lb)	158.4	408.36
Cull sales (lb)	93.8	145.37
Government payments		28.54
Other income		1.11
Purchased (lb)	-67.7	-267.48
Transferred in (lb)	-117.6	-240.47
Inventory change (lb)	272.7	530.98
Gross margin		1,083.86
<b>Direct Expenses</b>		
Protein Vit Minerals (lb.)	371.2	21.44
Complete Ration (lb.)	2,237.9	78.07
Corn Silage (lb.)	2,233.3	36.73
Hay, Alfalfa (lb.)	626.5	25.98
Hay, Grass (lb.)	3,757.5	110.63
Pasture (aum)	2.3	56.94
Straw (lb.)	312.0	10.46
Other feed stuffs (lb)	54.6	17.15
Veterinary		21.36
Fuel & oil		22.54
Repairs		38.53
Operating interest		7.66
Miscellaneous		6.37
Total direct expenses		453.87
Return over direct expense		629.99
<b>Overhead Expenses</b>		
Hired labor		2.42
Interest		16.95
Mach & bldg depreciation		21.62
Miscellaneous		22.35
Total overhead expenses		63.33
Total dir & ovhd expenses		517.20
Net return		566.66
Labor & management charge		64.61
Net return over lbr & mgt		502.05
<b>Cost of Production Per Cwt. Produced</b>		
Total direct expense per unit		88.63
Total dir & ovhd expense per unit		100.99
With other revenue adjustments		132.68
With labor and management		145.29
Est. labor hours per unit		2.49
<b>Other Information</b>		
Number of cows		163.5
Pregnancy percentage		92.8
Pregnancy loss percentage		4.3
Culling percentage		12.8
Calving percentage		88.8
Weaning percentage		85.3
Calves sold per cow		0.63
Calf death loss percent		8.3
Cow death loss percent		3.2
Cows per FTE		1,126.3
Average weaning weight		498
Lb. weaned/exposed female		425
Feed cost per cow		357.40
Avg wgt/ Beef Calves sold		514
Avg price / cwt.		276.77

**Livestock Enterprise Analysis**  
**North Dakota Farm Business Management Education Program**  
**Region 2 - North Central North Dakota, 2023**  
**(Farms Sorted By Net Return)**

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

	<b>Avg. Of All Farms</b>	
Number of farms	5	
	Quantity	Value
Beef Replace sold (hd)	0.61	1,078.80
Transferred out (hd)	0.61	1,078.54
Cull sales (hd)	0.08	87.19
Other income		36.94
Purchased (hd)	0.33	-364.00
Transferred in (hd)	0.70	-892.54
Inventory change (hd)	-0.32	-88.03
Gross margin		936.90
<b>Direct Expenses</b>		
Protein Vit Minerals (lb.)	62.39	27.96
Complete Ration (lb.)	1,746.27	34.98
Corn (bu.)	14.37	62.41
Corn Silage (lb.)	5,186.16	61.97
Hay, Alfalfa (lb.)	2,253.13	60.83
Hay, Grass (lb.)	1,459.43	56.53
DDGS, dry (lb.)	170.62	25.61
Hay (lb.)	941.04	28.23
Other feed stuffs (lb)	64.55	1.09
Fuel & oil		25.81
Repairs		102.09
Operating interest		45.02
Miscellaneous		-
Total direct expenses		532.53
Return over direct expense		404.37
<b>Overhead Expenses</b>		
Custom hire		30.18
Farm insurance		27.93
Utilities		51.60
Dues & professional fees		6.51
Interest		22.10
Mach & bldg depreciation		54.87
Miscellaneous		39.23
Total overhead expenses		232.42
Total dir & ovhd expenses		764.95
Net return		171.95
Labor & management charge		144.47
Net return over lbr & mgt		27.48
<b>Cost of Production Per Head Sold/Trans</b>		
Total direct expense per unit		1,436.69
Total dir & ovhd expense per unit		1,627.17
With other revenue adjustments		1,627.17
With labor and management		1,745.58
Est. labor hours per unit		7.73
<b>Other Information</b>		
No. purchased or trans in		55
Number sold or trans out		65
Average number of head		54
Percentage death loss		1.1
Feed cost per average head		359.62
Hired labor per average head		0.24
Feed cost/head sold/trans		294.73
Total cost/head sold/trans		1,745.58
Feed cost per head per day		0.99
Avg. purch price / head		1,108.54
Avg. wgt / Beef Replace sold		776
Avg. sales price / head		1,773.74

**Livestock Enterprise Analysis**  
**North Dakota Farm Business Management Education Program**  
**Region 2 - North Central North Dakota, 2023**  
**(Farms Sorted By Net Return)**

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

	<u>Avg. Of All Farms</u>	
Number of farms	5	
	Quantity	Value
Beef Replace sold (hd)	0.5	884.16
Transferred out (hd)	0.5	883.94
Cull sales (hd)	0.1	71.46
Other income		30.28
Purchased (hd)	0.3	-298.32
Transferred in (hd)	0.6	-731.50
Inventory change (hd)	-0.3	-72.15
Gross margin		767.86
<b>Direct Expenses</b>		
Protein Vit Minerals (lb.)	51.1	22.91
Complete Ration (lb.)	1,431.2	28.67
Corn (bu.)	11.8	51.15
Corn Silage (lb.)	4,250.4	50.79
Hay, Alfalfa (lb.)	1,846.6	49.86
Hay, Grass (lb.)	1,196.1	46.33
DDGS, dry (lb.)	139.8	20.99
Hay (lb.)	771.3	23.14
Other feed stuffs (lb)	52.9	0.89
Fuel & oil		21.15
Repairs		83.67
Operating interest		36.89
Miscellaneous		-
Total direct expenses		436.45
Return over direct expense		331.41
<b>Overhead Expenses</b>		
Custom hire		24.74
Farm insurance		22.89
Utilities		42.29
Interest		18.11
Mach & bldg depreciation		44.97
Miscellaneous		37.49
Total overhead expenses		190.49
Total dir & ovhd expenses		626.93
Net return		140.93
Labor & management charge		118.40
Net return over lbr & mgt		22.53
<b>Cost of Production Per Head Sold/Trans</b>		
Total direct expense per unit		1,436.69
Total dir & ovhd expense per unit		1,627.17
With other revenue adjustments		1,627.17
With labor and management		1,745.58
Est. labor hours per unit		6.34
<b>Other Information</b>		
No. purchased or trans in		55
Number sold or trans out		65
Average number of head		54
Percentage death loss		1.1
Feed cost per average head		359.62
Hired labor per average head		0.24
Feed cost/head sold/trans		294.73
Total cost/head sold/trans		1,745.58
Feed cost per head per day		0.99
Avg. purch price / head		1,108.54
Avg. wgt / Beef Replace sold		776
Avg. sales price / head		1,773.74

**Livestock Enterprise Analysis**  
**North Dakota Farm Business Management Education Program**  
**Region 2 - North Central North Dakota, 2023**  
**(Farms Sorted By Net Return)**

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

	<u>Avg. Of All Farms</u>	
Number of farms	5	
	Quantity	Value
Backgnd Beef sold (lb)	224.93	501.70
Transferred out (lb)	119.24	226.09
Purchased (lb)	-77.82	-208.63
Transferred in (lb)	-409.26	-1,145.99
Inventory change (lb)	242.91	879.98
Gross margin		253.15
<b>Direct Expenses</b>		
Creep / Starter (lb.)	73.72	6.05
Complete Ration (lb.)	1,556.20	97.80
Corn (bu.)	2.18	9.91
Corn Silage (lb.)	635.70	11.24
Hay, Alfalfa (lb.)	36.41	2.27
Hay, Grass (lb.)	404.60	13.97
Other feed stuffs (lb)	350.52	10.99
Veterinary		2.36
Fuel & oil		14.79
Repairs		39.69
Operating interest		17.53
Miscellaneous		-
Total direct expenses		226.60
Return over direct expense		26.56
<b>Overhead Expenses</b>		
Utilities		10.45
Interest		15.68
Mach & bldg depreciation		25.93
Miscellaneous		20.22
Total overhead expenses		72.28
Total dir & ovhd expenses		298.88
Net return		-45.73
Labor & management charge		58.40
Net return over lbr & mgt		-104.12
<b>Cost of Production Per Cwt. Produced</b>		
Total direct expense per unit		203.75
Total dir & ovhd expense per unit		224.75
With other revenue adjustments		224.75
With labor and management		241.72
Est. labor hours per unit		2.60
<b>Other Information</b>		
No. purchased or trans in		212
Number sold or trans out		124
Percentage death loss		1.0
Avg. daily gain (lb.)		1.09
Lb. of conc / lb. of gain		20.47
Lb. of feed / lb. of gain		27.81
Feed cost per cwt. of gain		152.23
Feed cost per head		160.15
Hired labor per head		0.48
Average purchase weight		545
Avg wgt / Backgnd Beef sold		596
Avg purch price / cwt.		268.09
Avg sales price / cwt.		223.05

**Livestock Enterprise Analysis**  
**North Dakota Farm Business Management Education Program**  
**Region 2 - North Central North Dakota, 2023**  
**(Farms Sorted By Net Return)**

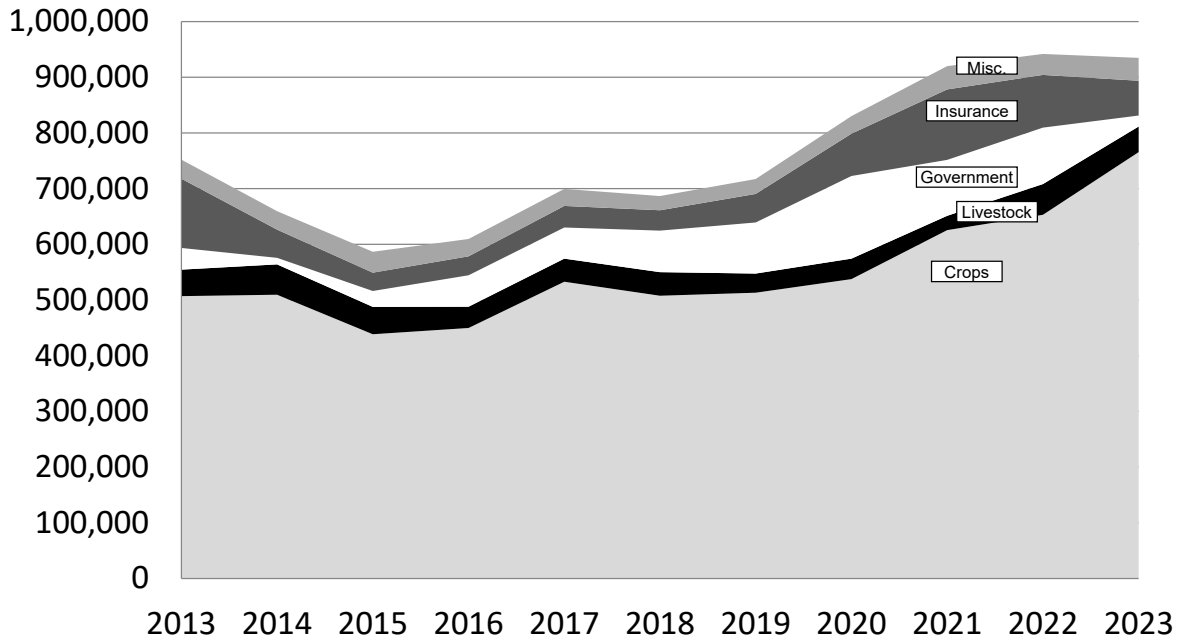
**Beef Backgrounding -- Average Per Head**

	<u>Avg. Of All Farms</u>	
Number of farms	5	
	Quantity	Value
Backgnd Beef sold (lb)	236.6	527.81
Transferred out (lb)	125.4	237.86
Purchased (lb)	-81.9	-219.48
Transferred in (lb)	-430.6	-1,205.63
Inventory change (lb)	255.6	925.77
Gross margin		266.33
<b>Direct Expenses</b>		
Protein Vit Minerals (lb.)	273.0	5.99
Creep / Starter (lb.)	77.6	6.37
Complete Ration (lb.)	1,637.2	102.89
Corn (bu.)	2.3	10.43
Corn Silage (lb.)	668.8	11.82
Hay, Alfalfa (lb.)	38.3	2.39
Hay, Grass (lb.)	425.7	14.69
Other feed stuffs (lb)	95.7	5.57
Veterinary		2.48
Fuel & oil		15.56
Repairs		41.75
Operating interest		18.45
Miscellaneous		-
Total direct expenses		238.39
Return over direct expense		27.94
<b>Overhead Expenses</b>		
Utilities		10.99
Interest		16.50
Mach & bldg depreciation		27.28
Miscellaneous		21.27
Total overhead expenses		76.04
Total dir & ovhd expenses		314.43
Net return		-48.11
Labor & management charge		61.43
Net return over lbr & mgt		-109.54
<b>Cost of Production Per Cwt. Produced</b>		
Total direct expense per unit		203.75
Total dir& ovhd expense per unit		224.75
With other revenue adjustments		224.75
With labor and management		241.72
Est. labor hours per unit		2.74
<b>Other Information</b>		
No. purchased or trans in		212
Number sold or trans out		124
Percentage death loss		1.0
Avg. daily gain (lb.)		1.09
Lb. of conc / lb. of gain		20.47
Lb. of feed / lb. of gain		27.81
Feed cost per cwt. of gain		152.23
Feed cost per head		160.15
Hired labor per head		0.48
Average purchase weight		545
Avg wgt / Backgnd Beef sold		596
Avg purch price / cwt.		268.09
Avg sales price / cwt.		223.05



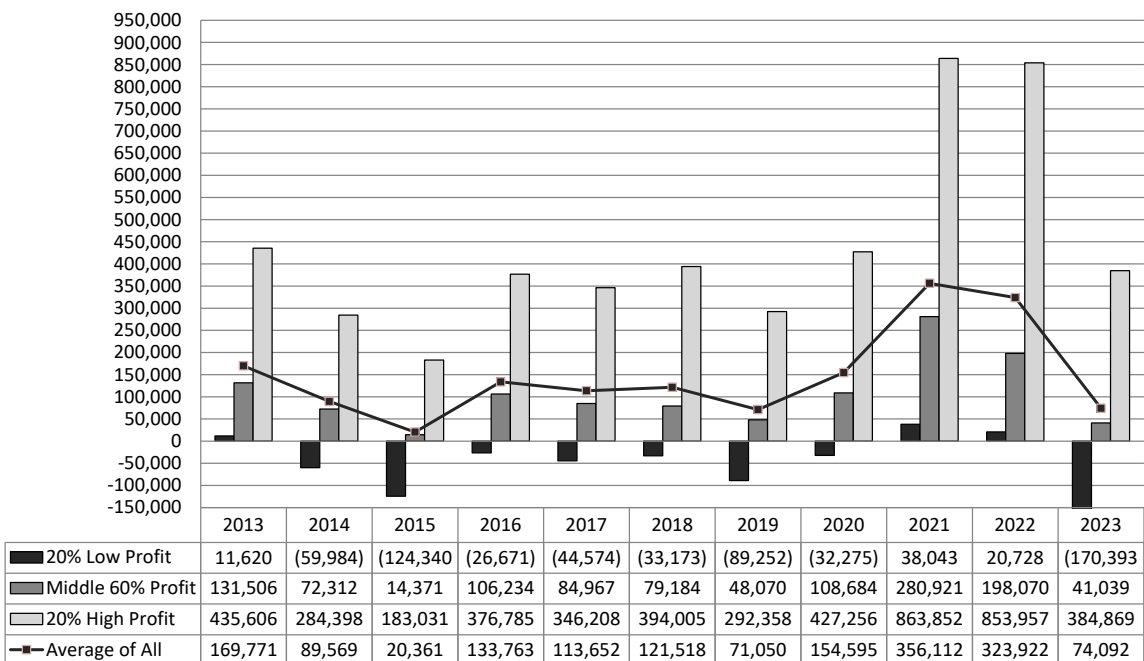
## Figure 1. Gross Cash Income Per Farm

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



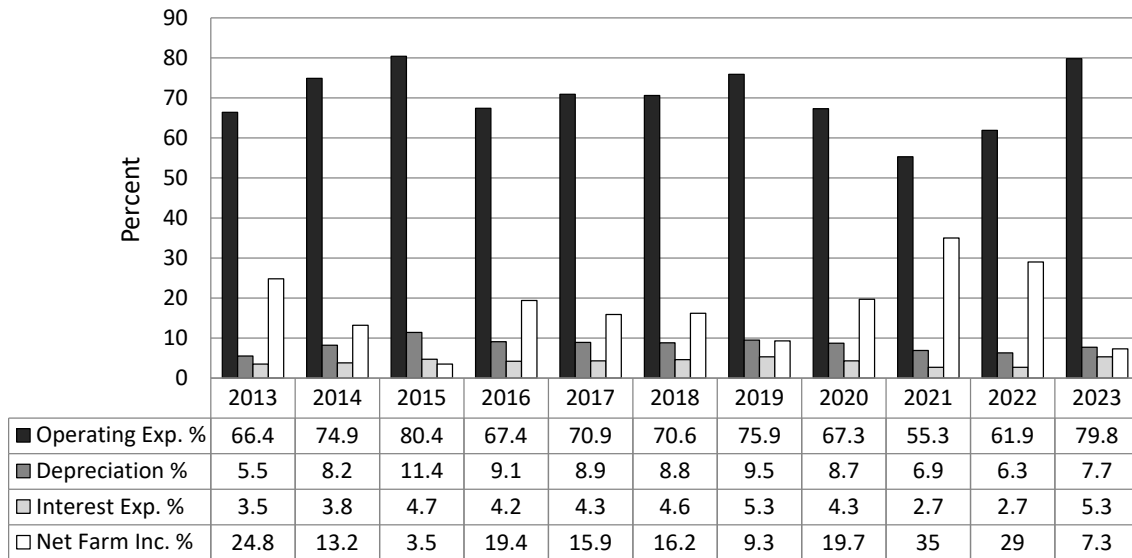
## Figure 2. Net Farm Income (Accrual) Per Farm

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



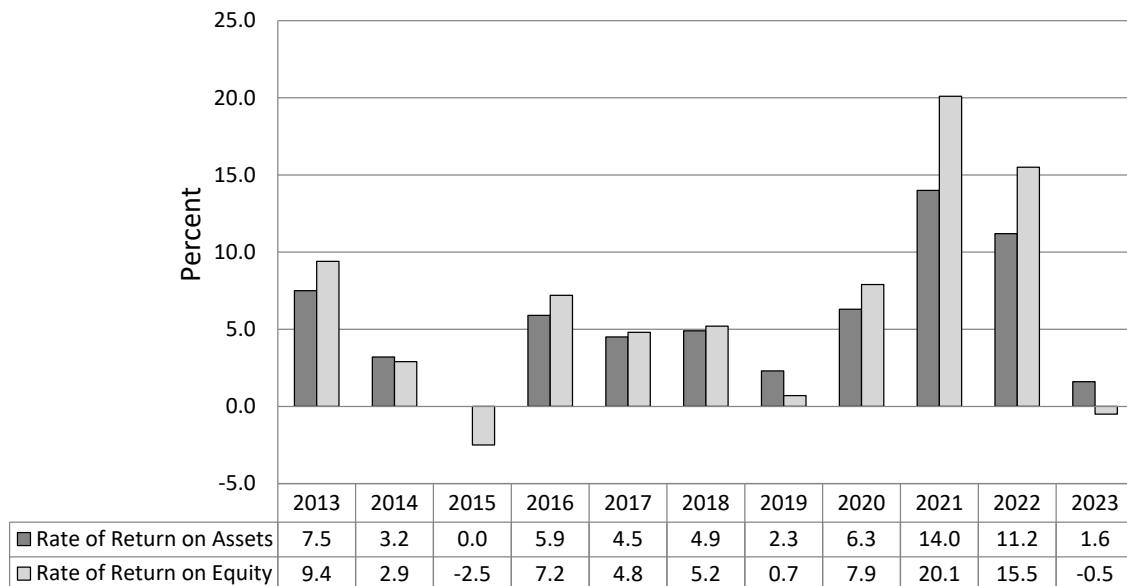
### Figure 3. Financial Efficiency Measures (As Percent of Gross Revenue)

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



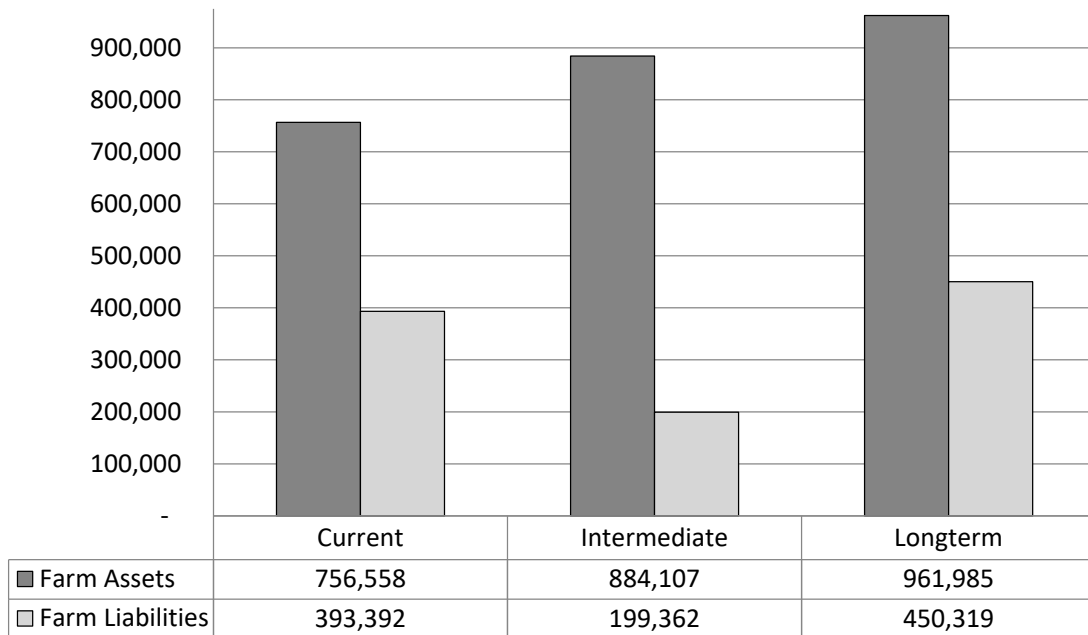
### Figure 4. Profitability Measures Per Farm

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



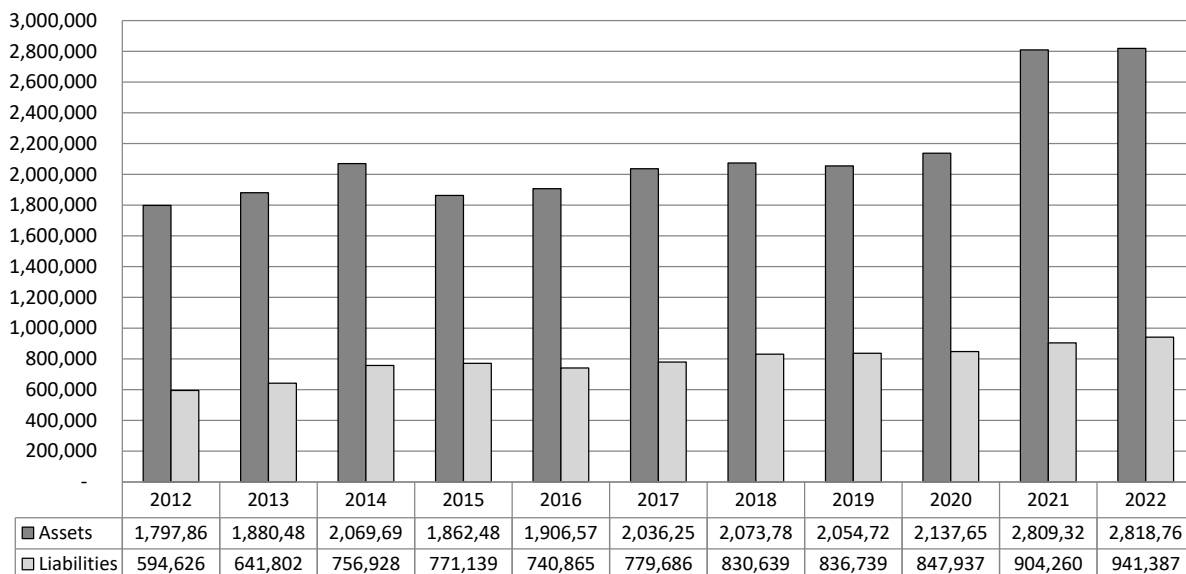
## Figure 5. Assets and Liabilities Per Farm, 2023

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



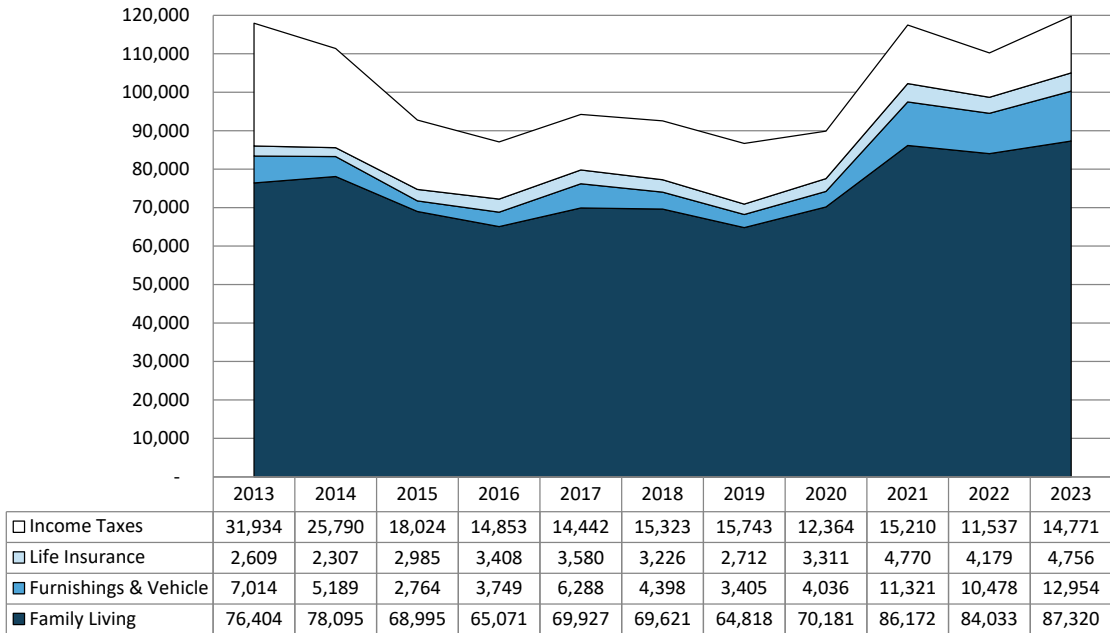
## Figure 6. Total Farm Assets and Liabilities

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



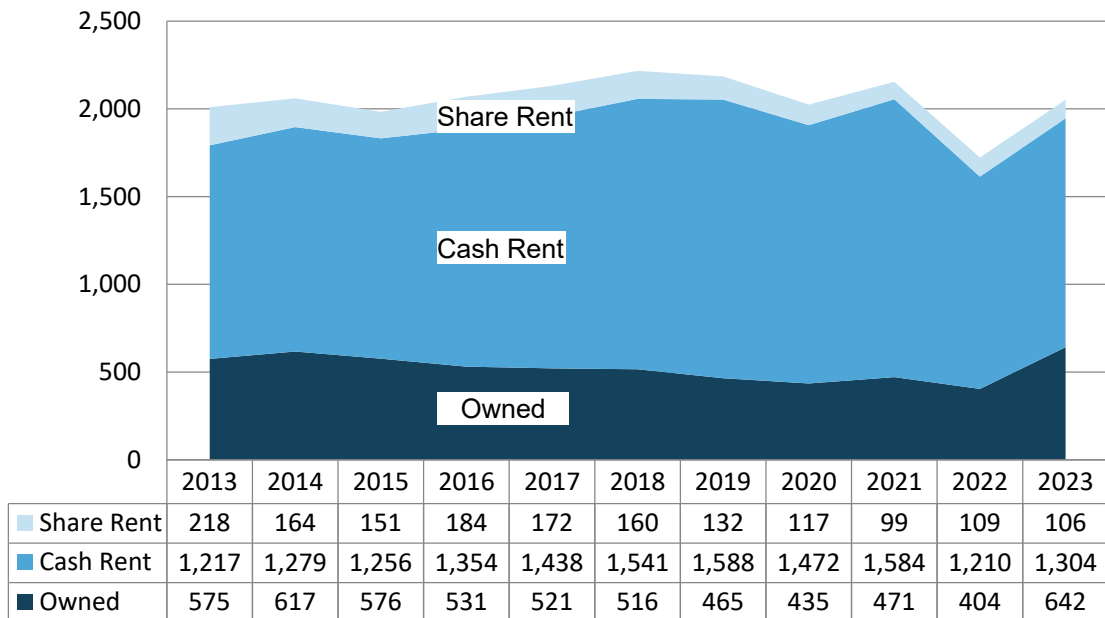
## Figure 7. Household and Personal Expenses

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



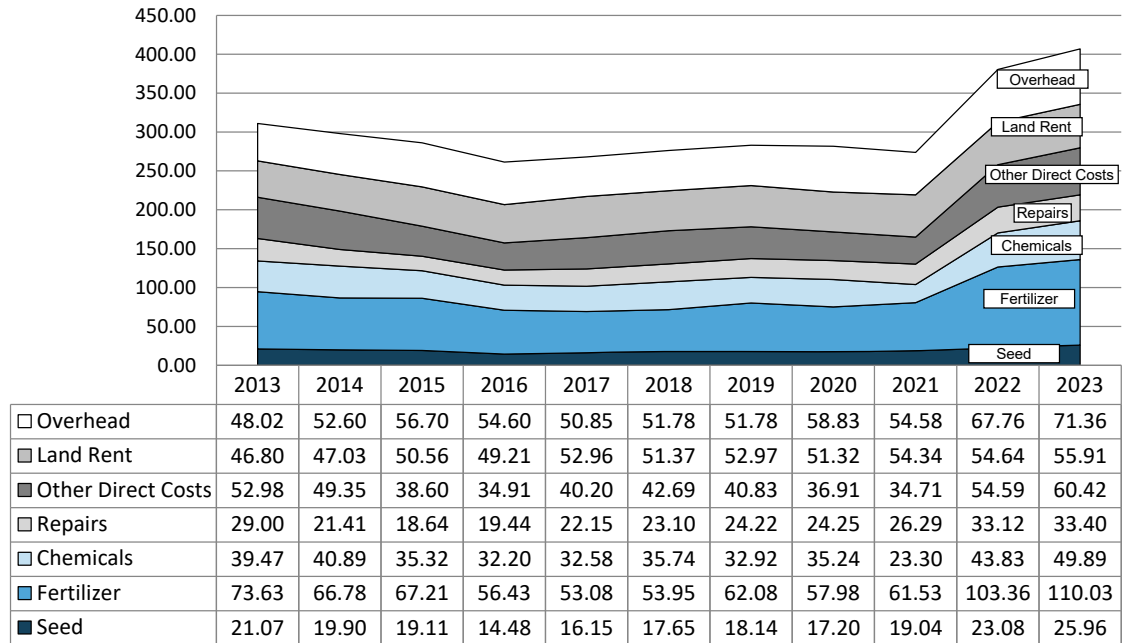
## Figure 8. Crop Acreage Per Farm

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



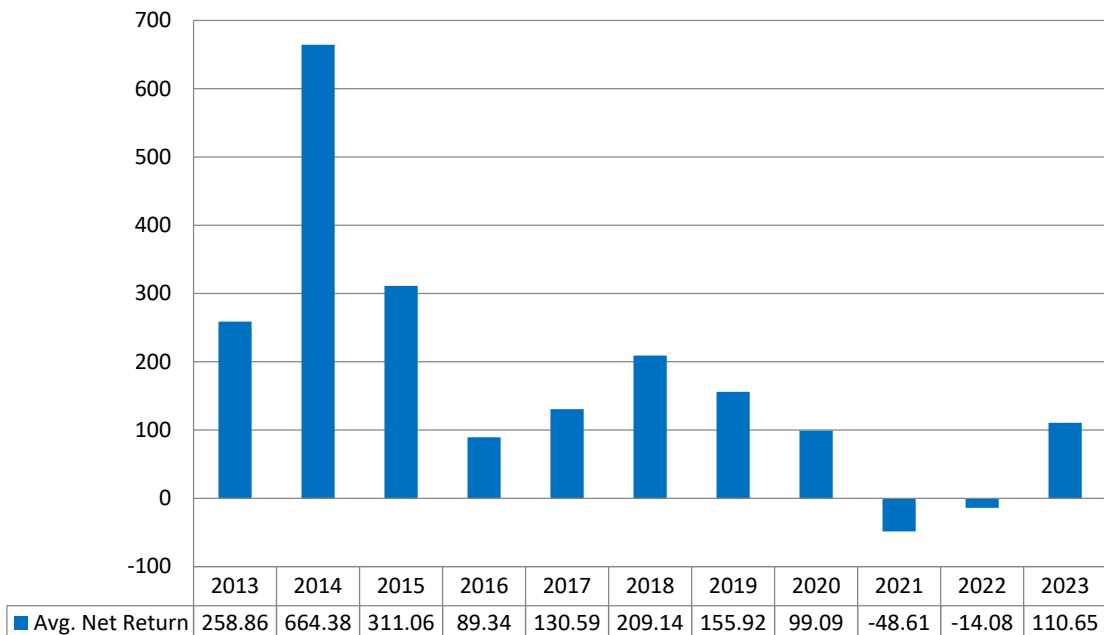
## Figure 9. Spring Wheat Costs Per Acre

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



## Figure 10. Average Net Return Per Beef Cow

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





# LEADER IN THE FIELD



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