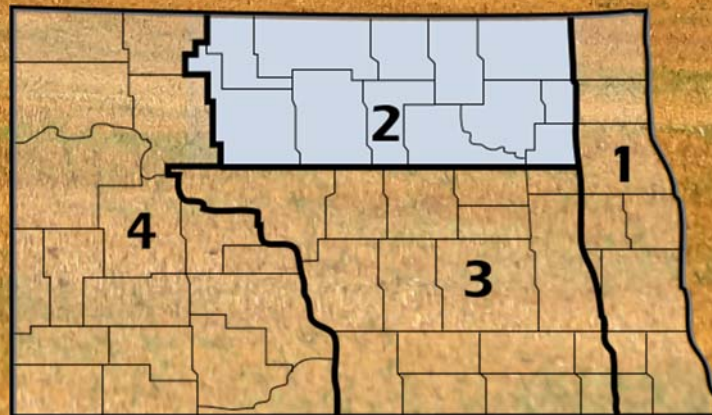


# 2022 ANNUAL REPORT

## North Central North Dakota

North Dakota Farm Management Education



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



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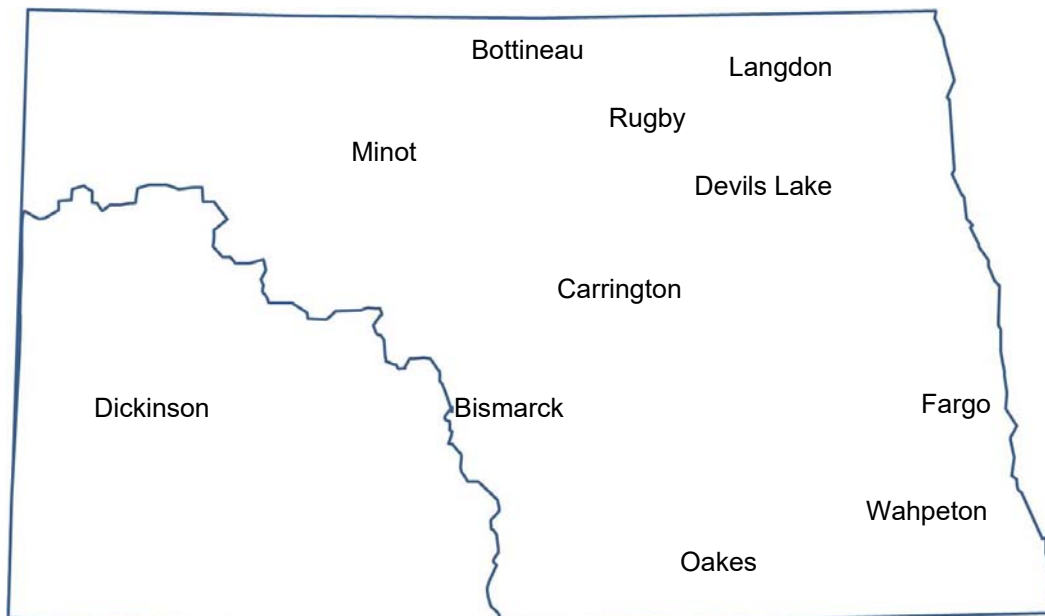
# NORTH DAKOTA FARM BUSINESS MANAGEMENT EDUCATION

## REGION 2 – NORTH CENTRAL AVERAGES 2022 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 2022 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.



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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 2022 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 34<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, CSP, and Market Facilitation Payments (MFP).

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

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

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

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

### Inventory Changes

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

## Depreciation

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

## Profitability Measures

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

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

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

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

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

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

**"Value of operator's labor and management"** is an opportunity cost for unpaid 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, 2022**  
**(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	92	18	19	19
<b>Cash Farm Income</b>				
Barley	23,144	7,016	25,819	66,979
Beans, Black Turtle	340	-	-	-
Beans, Faba	277	-	-	1,341
Beans, Pinto	19,419	-	7,369	43,289
Canola	124,561	23,339	107,501	315,672
Corn	44,798	9,415	34,878	75,647
Flax	1,747	3,368	-	5,270
Hay, Alfalfa	78	400	-	-
Millet	254	-	1,232	-
Oats	3,477	-	-	7,294
Peas, Dry Edible	9,713	3,966	1,552	33,119
Rye	891	-	4,316	-
Soybeans	217,182	37,394	156,971	431,393
Sunflowers	25,224	10,834	5,813	79,725
Wheat, Durum	6,577	-	-	21,095
Wheat, Spring	176,916	43,633	158,612	438,500
Wheat, Winter	1,510	-	-	350
Hay	2,006	-	-	9,186
Miscellaneous crop income	942	-	3,475	367
Beef Cow-Calf, Beef Calves	19,576	31,680	16,829	10,742
Beef Replacement Heifers	2,631	614	8,573	-
Beef Backgrounding	24,079	25,252	37,662	2,129
Beef Finish Cull Cows	890	-	4,309	-
Cull breeding livestock	7,755	8,214	5,498	1,962
Misc. livestock income	313	-	181	91
Crop government payments	6,278	1,336	4,141	3,722
CRP payments	756	168	1,398	1,437
Livestock govt payments	2,460	5,006	439	729
Conservation govt payment	2,379	1,069	1,707	1,582
Other government payments	89,539	42,896	65,793	162,869
Custom work income	9,573	4,122	14,641	18,699
Patronage dividends, cash	8,064	2,377	4,328	20,146
Crop insurance income	94,627	37,516	96,437	194,196
Property insurance income	370	-	635	-
Sale of resale items	4,960	3,072	-	21,092
Livestock insurance inc	177	320	304	-
Farm rental income	2,829	528	3,438	6,001
Other farm income	12,286	9,711	7,148	24,698
Gross Cash Farm Income	948,599	313,248	781,000	1,999,322

**Farm Income Statement (continued)**  
**North Dakota Farm Business Management Education Program**  
**Region 2 - North Central North Dakota, 2022**  
**(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	92	18	19	19
<b>Cash Farm Expense</b>				
Seed and plants	79,661	31,680	60,324	145,217
Fertilizer	150,142	49,699	116,024	298,546
Crop chemicals	89,118	31,825	73,908	182,473
Crop insurance	47,732	18,471	34,546	107,768
Drying expense	261	-	216	8
Crop miscellaneous	2,112	3,197	4,430	649
Consultants	1,666	-	291	5,306
Feeder livestock purchase	1,323	388	3,976	-
Purchased feed	6,575	9,805	6,647	1,839
Breeding fees	187	585	351	-
Veterinary	2,293	2,827	3,374	288
Supplies	2,177	2,564	3,685	654
Livestock leases	46	-	89	132
Interest	27,940	19,317	27,155	43,780
Fuel & oil	40,933	17,680	42,013	66,543
Repairs	79,992	41,032	80,883	132,733
Custom hire	18,046	10,266	14,425	32,924
Hired labor	19,568	5,160	14,807	51,089
Land rent	80,285	36,291	52,931	152,291
Machinery leases	15,524	11,919	12,757	25,208
Building leases	866	53	174	2,805
Real estate taxes	4,762	2,106	4,972	7,711
Farm insurance	11,434	5,692	11,511	19,176
Utilities	7,429	3,901	8,915	12,081
Hauling and trucking	199	127	-	-
Marketing	731	162	164	-
Dues & professional fees	3,046	2,103	2,434	3,052
Purchase of resale items	5,338	3,813	-	22,233
Miscellaneous	10,178	2,855	7,580	23,844
Total cash expense	709,563	313,516	588,582	1,338,349
Net cash farm income	239,036	-268	192,418	660,974
<b>Inventory Changes</b>				
Prepays and supplies	17,429	-3,455	993	40,479
Accounts receivable	-10,453	-9,514	16,224	-17,132
Hedging accounts	1,803	-	3,947	4,472
Other current assets	-2,915	-220	-1,282	-11,461
Crops and feed	138,155	77,360	29,905	266,098
Market livestock	2,604	5,901	13,602	299
Breeding livestock	-6,454	-14,470	-6,638	-3,070
Other assets	-731	-131	55	2,179
Accounts payable	1,223	-886	-64	3,750
Accrued interest	-1,012	-1,954	1,096	-674
Total inventory change	139,650	52,629	57,839	284,941
Net operating profit	378,685	52,362	250,257	945,915
<b>Depreciation</b>				
Machinery and equipment	-56,734	-28,055	-42,803	-126,685
Titled vehicles	-5,542	-2,309	-4,016	-8,159
Buildings and improvements	-5,514	-402	-4,579	-14,467
Total depreciation	-67,790	-30,766	-51,398	-149,311
Net farm income from operations	310,895	21,596	198,859	796,603
Gain or loss on capital sales	13,027	-868	-789	57,354
Net farm income	323,922	20,728	198,070	853,957

**Inventory Changes**  
**North Dakota Farm Business Management Education Program**  
**Region 2 - North Central North Dakota, 2022**  
**(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	92	18	19	19
Net cash farm income	239,036	-268	192,418	660,974
<b>Crops and Feed</b>				
Ending inventory	529,705	161,134	328,372	1,233,921
Beginning inventory	391,549	83,774	298,466	967,822
Inventory change	138,155	77,360	29,905	266,098
<b>Market Livestock</b>				
Ending inventory	40,910	30,688	72,054	4,803
Beginning inventory	38,306	24,787	58,452	4,503
Inventory change	2,604	5,901	13,602	299
<b>Accts Receivable</b>				
Ending inventory	34,967	15,368	66,130	54,982
Beginning inventory	45,420	24,882	49,906	72,114
Inventory change	-10,453	-9,514	16,224	-17,132
<b>Prepaid Expenses and Supplies</b>				
Ending inventory	88,172	11,147	61,596	224,776
Beginning inventory	70,743	14,603	60,604	184,297
Inventory change	17,429	-3,455	993	40,479
<b>Hedging Activities</b>				
Ending inventory	3,449	-	3,963	10,834
Withdrawals	1,940	-	2,632	579
Beginning inventory	1,524	-	2,384	3,941
Deposits	2,063	-	263	3,000
Gain or loss	1,803	-	3,947	4,472
<b>Other Current Assets</b>				
Ending inventory	496	426	892	1,105
Beginning inventory	3,410	646	2,173	12,566
Inventory change	-2,915	-220	-1,282	-11,461
<b>Breeding Livestock</b>				
Ending inventory	84,677	118,397	116,238	19,533
Capital sales	1,530	282	1,777	-
Beginning inventory	78,073	99,713	111,761	17,589
Capital purchases	14,587	33,435	12,892	5,014
Depreciation, capital adjust	-6,454	-14,470	-6,638	-3,070
<b>Other Capital Assets</b>				
Ending inventory	64,214	35,495	52,257	142,822
Capital sales	1,327	559	451	2,442
Beginning inventory	62,666	35,137	48,924	136,457
Capital purchases	3,607	1,048	3,729	6,627
Depreciation, capital adjust	-731	-131	55	2,179
<b>Accounts Payable</b>				
Beginning inventory	9,095	6,977	4,792	13,683
Ending inventory	7,873	7,864	4,856	9,933
Inventory change	1,223	-886	-64	3,750
<b>Accrued Interest</b>				
Beginning inventory	14,791	9,189	14,968	24,678
Ending inventory	15,803	11,143	13,872	25,352
Inventory change	-1,012	-1,954	1,096	-674
Total inventory change	139,650	52,629	57,839	284,941
Net operating profit	378,685	52,362	250,257	945,915

**Depreciation**  
**North Dakota Farm Business Management Education Program**  
**Region 2 - North Central North Dakota, 2022**  
**(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	92	18	19	19
Net operating profit	378,685	52,362	250,257	945,915
<b>Machinery and Equipment</b>				
Ending inventory	643,573	226,789	566,811	1,455,314
Capital sales	62,094	21,573	14,405	215,903
Beginning inventory	600,166	198,443	523,180	1,377,749
Capital purchases	162,235	77,975	100,839	420,153
Depreciation, capital adjust.	-56,734	-28,055	-42,803	-126,685
<b>Titled Vehicles</b>				
Ending inventory	69,872	45,439	66,135	88,322
Capital sales	4,163	1,889	4,875	8,179
Beginning inventory	62,482	41,863	58,948	77,973
Capital purchases	17,095	7,774	16,078	26,686
Depreciation, capital adjust.	-5,542	-2,309	-4,016	-8,159
<b>Buildings and Improvements</b>				
Ending inventory	176,002	45,729	201,037	389,033
Capital sales	418	-	-	2,024
Beginning inventory	143,665	33,245	173,956	336,567
Capital purchases	38,269	12,886	31,660	68,957
Depreciation, capital adjust.	-5,514	-402	-4,579	-14,467
Total depreciation, capital adj.	-67,790	-30,766	-51,398	-149,311
Net farm income from operations	310,895	21,596	198,859	796,603
Gain or loss on capital sales	13,027	-868	-789	57,354
Net farm income	323,922	20,728	198,070	853,957

**Profitability Measures**  
**North Dakota Farm Business Management Education Program**  
**Region 2 - North Central North Dakota, 2022**  
**(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	92	18	19	19
<b>Profitability (assets valued at cost)</b>				
Net farm income from operations	310,895	21,596	198,859	796,603
Rate of return on assets	11.2 %	-0.1 %	7.1 %	15.1 %
Rate of return on equity	15.5 %	-8.1 %	9.8 %	19.3 %
Operating profit margin	24.3 %	-0.2 %	18.4 %	31.3 %
Asset turnover rate	46.1 %	39.7 %	38.7 %	48.4 %
Farm interest expense	28,952	21,271	26,058	44,454
Value of operator lbr and mgmt.	82,318	43,709	73,068	146,866
Return on farm assets	257,530	-842	151,849	694,192
Average farm assets	2,296,126	903,088	2,139,049	4,582,197
Return on farm equity	228,577	-22,113	125,791	649,738
Average farm equity	1,473,975	274,437	1,286,049	3,370,526
Value of farm production	1,057,921	358,388	827,473	2,216,637

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	92	18	19	19
<b>Profitability (assets valued at market)</b>				
Net farm income from operations	395,615	30,300	303,154	922,581
Rate of return on assets	12.5 %	0.7 %	9.7 %	15.6 %
Rate of return on equity	16.3 %	-2.3 %	12.8 %	19.1 %
Operating profit margin	32.4 %	2.2 %	31.0 %	37.0 %
Asset turnover rate	38.6 %	29.8 %	31.3 %	42.1 %
Farm interest expense	28,952	21,271	26,058	44,454
Value of operator lbr and mgmt.	82,318	43,709	73,068	146,866
Return on farm assets	342,249	7,862	256,145	820,169
Average farm assets	2,741,125	1,202,719	2,644,954	5,263,584
Return on farm equity	313,297	-13,409	230,086	775,715
Average farm equity	1,918,974	574,067	1,791,954	4,051,913
Value of farm production	1,057,921	358,388	827,473	2,216,637



**Liquidity & Repayment Capacity Measures**  
**North Dakota Farm Business Management Education Program**  
**Region 2 - North Central North Dakota, 2022**  
**(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	92	18	19	19
<b>Liquidity</b>				
Current ratio	3.03	1.74	1.99	4.70
Working capital	525,433	115,138	294,646	1,366,140
Change in working capital	106,020	-46,723	-13,613	381,598
Working capital to gross revenue	49.1 %	30.9 %	35.2 %	61.0 %
Working capital to oper expense	79.2 %	38.5 %	52.4 %	109.3 %
Current assets	784,455	271,199	593,535	1,735,323
Current liabilities	259,022	156,061	298,888	369,183
Gross revenues (accrual)	1,071,156	372,393	838,096	2,240,708
Total operating expenses	663,519	298,760	561,781	1,250,339
<b>Repayment capacity</b>				
Net farm income from operations	310,895	21,596	198,859	796,603
Depreciation	67,790	30,766	51,398	149,311
Personal income	32,194	28,477	27,518	25,583
Family living/owner withdrawals	-88,584	-48,960	-90,977	-143,204
Cash discrepancy	23	59	-48	37
Income taxes	-16,676	-3,290	-10,487	-47,278
Interest expense	28,952	21,271	26,058	44,454
Debt repayment capacity	337,332	51,499	205,038	828,246
Debt payments	102,423	64,363	85,763	171,753
Repayment margin	234,909	-12,864	119,276	656,493
Cash replacement allowance	-34,978	-10,801	-34,270	-80,059
Replacement margin	199,931	-23,664	85,006	576,434
Debt coverage ratio	3.29	0.80	2.39	4.82
Term debt coverage ratio	3.40	0.78	2.44	4.80
Replacement coverage ratio	2.46	0.69	1.71	3.29

**Balance Sheet at Cost Values**  
**North Dakota Farm Business Management Education Program**  
**Region 2 - North Central North Dakota, 2022**  
**(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	92	18	19	19
<b>Assets</b>				
<b>Current Farm Assets</b>				
Cash and checking balance	86,757	52,436	60,528	204,903
Prepaid expenses & supplies	88,172	11,147	61,596	224,776
Growing crops	-	-	-	-
Accounts receivable	34,967	15,368	66,130	54,982
Hedging accounts	3,449	-	3,963	10,834
Crops held for sale or feed	529,705	161,134	328,372	1,233,921
Crops under government loan	-	-	-	-
Market livestock held for sale	40,910	30,688	72,054	4,803
Other current assets	496	426	892	1,105
<b>Total current farm assets</b>	<b>784,455</b>	<b>271,199</b>	<b>593,535</b>	<b>1,735,323</b>
<b>Intermediate Farm Assets</b>				
Breeding livestock	84,677	118,397	116,238	19,533
Machinery and equipment	643,573	226,789	566,811	1,455,314
Titled vehicles	69,872	45,439	66,135	88,322
Other intermediate assets	43,484	14,159	32,952	90,311
<b>Total intermediate farm assets</b>	<b>841,605</b>	<b>404,784</b>	<b>782,135</b>	<b>1,653,480</b>
<b>Long Term Farm Assets</b>				
Farm land	611,539	214,193	648,892	1,041,709
Buildings and improvements	176,002	45,729	201,037	389,033
Other long-term assets	20,730	21,336	19,305	52,510
<b>Total long-term farm assets</b>	<b>808,271</b>	<b>281,258</b>	<b>869,234</b>	<b>1,483,252</b>
<b>Total Farm Assets</b>	<b>2,434,331</b>	<b>957,241</b>	<b>2,244,904</b>	<b>4,872,055</b>
<b>Total Nonfarm Assets</b>	<b>384,430</b>	<b>194,742</b>	<b>270,145</b>	<b>695,112</b>
<b>Total Assets</b>	<b>2,818,762</b>	<b>1,151,983</b>	<b>2,515,050</b>	<b>5,567,167</b>
<b>Liabilities</b>				
<b>Current Farm Liabilities</b>				
Accrued interest	15,803	11,143	13,872	25,352
Accounts payable	7,873	7,864	4,856	9,933
Current notes	167,937	94,402	211,720	217,294
Government crop loans	-	-	-	-
Principal due on term debt	67,410	42,653	68,441	116,604
<b>Total current farm liabilities</b>	<b>259,022</b>	<b>156,061</b>	<b>298,888</b>	<b>369,183</b>
<b>Total intermediate farm liabs</b>	<b>177,159</b>	<b>139,087</b>	<b>187,047</b>	<b>264,177</b>
<b>Total long term farm liabilities</b>	<b>412,680</b>	<b>401,379</b>	<b>420,755</b>	<b>549,181</b>
<b>Total farm liabilities</b>	<b>848,861</b>	<b>696,527</b>	<b>906,690</b>	<b>1,182,541</b>
<b>Total nonfarm liabilities</b>	<b>92,526</b>	<b>64,312</b>	<b>87,603</b>	<b>109,624</b>
<b>Total liabilities</b>	<b>941,387</b>	<b>760,839</b>	<b>994,293</b>	<b>1,292,165</b>
<b>Net worth (farm and nonfarm)</b>	<b>1,877,374</b>	<b>391,144</b>	<b>1,520,757</b>	<b>4,275,002</b>
<b>Net worth change</b>	<b>242,138</b>	<b>-16,157</b>	<b>111,205</b>	<b>684,437</b>
<b>Percent net worth change</b>	<b>15 %</b>	<b>-4 %</b>	<b>8 %</b>	<b>19 %</b>
<b>Ratio Analysis</b>				
Current farm liabilities / assets	33 %	58 %	50 %	21 %
Intermediate farm liab. / assets	21 %	34 %	24 %	16 %
Long term farm liab. / assets	51 %	143 %	48 %	37 %
<b>Total debt to asset ratio</b>	<b>33 %</b>	<b>66 %</b>	<b>40 %</b>	<b>23 %</b>

**Statement Of Cash Flows**  
**North Dakota Farm Business Management Education Program**  
**Region 2 - North Central North Dakota, 2022**  
**(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	92	18	19	19
Beginning cash (farm & nonfarm)	108,198	118,076	65,851	198,591
<b>Cash Provided By Operating Activities</b>				
Gross cash farm income	948,599	313,248	781,000	1,999,322
Total cash farm expense	-709,563	-313,516	-588,582	-1,338,349
Net cash from hedging transactions	-122	-	2,368	-2,421
Cash provided by operating	238,913	-268	194,786	658,553
<b>Cash Provided By Investing Activities</b>				
Sale of breeding livestock	1,575	282	1,777	-
Sale of machinery & equipment	74,263	20,594	14,255	268,636
Sale of titled vehicles	4,948	2,000	4,237	12,800
Sale of farm land	200	304	-	-
Sale of farm buildings	418	-	-	2,024
Sale of other farm assets	1,355	559	451	2,442
Sale of nonfarm assets	5,061	1,128	3,460	2,099
Purchase of breeding livestock	-14,587	-33,435	-12,892	-5,014
Purchase of machinery & equip.	-162,235	-77,975	-100,839	-420,153
Purchase of titled vehicles	-17,095	-7,774	-16,078	-26,686
Purchase of farm land	-48,211	-38,944	-57,789	-113,335
Purchase of farm buildings	-38,269	-12,886	-31,660	-68,957
Purchase of other farm assets	-3,607	-1,048	-3,729	-6,627
Purchase of nonfarm assets	-48,030	-42,119	-43,366	-80,291
Cash provided by investing	-244,214	-189,314	-242,172	-433,063
<b>Cash Provided By Financing Activities</b>				
Money borrowed	597,344	379,042	548,570	1,053,702
Principal payments	-525,264	-229,897	-420,058	-1,079,576
Personal income	32,194	28,477	27,518	25,583
Family living/owner withdrawals	-88,584	-48,960	-90,977	-143,204
Income and social security tax	-16,661	-3,290	-10,487	-46,857
Capital contributions	819	-	-	211
Capital distributions	-2,626	-	-32	-
Dividends paid	-	-	-	-
Cash gifts and inheritances	1,086	278	211	526
Gifts given	-23	-	-	-
Other cash flows	-	-	-	-
Cash provided by financing	-1,715	125,649	54,745	-189,614
Net change in cash balance	-7,016	-63,933	7,359	35,876
Ending cash (farm & nonfarm)	101,205	54,203	73,162	234,504
Discrepancy	-23	-59	48	-37

**Financial Standards Measures**  
**North Dakota Farm Business Management Education Program**  
**Region 2 - North Central North Dakota, 2022**  
**(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	92	18	19	19
<b>Liquidity</b>				
Current ratio	3.03	1.74	1.99	4.70
Working capital to gross revenue	49.1 %	30.9 %	35.2 %	61.0 %
Working capital to oper expense	79.2 %	38.5 %	52.4 %	109.3 %
<b>Solvency (market)</b>				
Farm debt to asset ratio	29 %	55 %	32 %	21 %
Farm equity to asset ratio	71 %	45 %	68 %	79 %
Farm debt to equity ratio	0.41	1.23	0.48	0.27
<b>Profitability (cost)</b>				
Rate of return on farm assets	11.2 %	-0.1 %	7.1 %	15.1 %
Rate of return on farm equity	15.5 %	-8.1 %	9.8 %	19.3 %
Operating profit margin	24.3 %	-0.2 %	18.4 %	31.3 %
Asset turnover rate	46.1 %	39.7 %	38.7 %	48.4 %
<b>Repayment Capacity</b>				
Debt coverage ratio	3.29	0.80	2.39	4.82
Term debt coverage ratio	3.40	0.78	2.44	4.80
Replacement coverage ratio	2.46	0.69	1.71	3.29
<b>Efficiency</b>				
Operating expense ratio	61.9 %	80.2 %	67.0 %	55.8 %
Depreciation expense ratio	6.3 %	8.3 %	6.1 %	6.7 %
Interest expense ratio	2.7 %	5.7 %	3.1 %	2.0 %
Net farm income ratio	29.0 %	5.8 %	23.7 %	35.6 %

**Crop Production and Marketing Summary**  
**North Dakota Farm Business Management Education Program**  
**Region 2 - North Central North Dakota, 2022**  
**(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	92	18	19	19
<b>Acreage Summary</b>				
Total acres owned	753	381	993	953
Total crop acres	1,911	791	1,645	3,563
Crop acres owned	448	190	583	660
Crop acres cash rented	1,341	537	998	2,623
Crop acres share rented	121	65	64	280
Total pasture acres	367	583	507	131
Percent crop acres owned	23 %	24 %	35 %	19 %
Mach invest/crop acre cost	358	301	369	421
Mach invest/crop acre market	436	394	454	504
<b>Average Price Received (Cash Sales Only)</b>				
Soybeans per bushel	13.40	13.08	13.22	13.52
Wheat, Spring per bushel	9.10	8.88	9.31	9.10
Canola per cwt	29.21	-	29.42	29.46
Corn per bushel	6.34	-	6.54	6.01
Barley per bushel	6.25	-	-	5.56
Sunflowers per cwt	31.64	-	-	-
Wheat, Durum per bushel	14.38	-	-	-
Beans, Pinto per cwt	41.73	-	-	-
<b>Average Yield Per Acre</b>				
Wheat, Spring (bushel)	55.61	49.52	49.38	64.68
Soybeans (bushel)	33.35	-	29.98	37.92
Canola (cwt)	20.22	-	18.96	21.83
Barley (bushel)	73.46	51.41	67.20	84.25
Corn (bushel)	112.39	-	99.74	126.12
Hay, Mixed Alfalfa/Grass (ton)	1.87	1.69	-	1.32
Hay, Small Grain (ton)	1.87	1.96	2.23	1.52
Hay, Grass (ton)	1.39	1.78	-	1.87
Corn Silage (ton)	14.20	12.39	15.06	-
Hay, Alfalfa (ton)	1.75	-	-	1.70
Hay (ton)	1.89	-	-	-
Beans, Pinto (cwt)	18.90	-	-	18.37
Sunflowers (cwt)	23.65	-	-	23.05
Hay, Mixed (ton)	1.49	-	-	-
Oats (bushel)	82.08	-	-	-
Wheat, Durum (bushel)	58.87	-	-	63.08
Sunflowers, Confectionary (cwt)	14.72	-	-	-
Flax (bushel)	15.27	-	-	-

**Household and Personal Expenses**  
**North Dakota Farm Business Management Education Program**  
**Region 2 - North Central North Dakota, 2022**  
**(Farms Sorted By Net Farm Income)**

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>
Number of farms	32	5	9
Average family size	3.3	2.2	3.7
<b>Family Living Expenses</b>			
Food and meals expense	11,489	9,902	9,927
Medical care	7,197	10,455	8,523
Health insurance	5,659	8,423	4,736
Cash donations	1,455	381	982
Household supplies	11,603	13,726	13,146
Clothing	2,471	3,082	2,708
Personal care	6,818	2,802	9,005
Child / Dependent care	1,827	1,391	862
Alimony and child support	-	-	-
Gifts	2,458	3,282	2,239
Education	1,377	769	3,032
Recreation	4,282	1,944	4,145
Utilities (household share)	4,338	3,831	4,102
Personal vehicle operating exp	3,247	684	4,861
Household real estate taxes	86	-	-
Dwelling rent	328	880	678
Household repairs	3,717	1,452	4,083
Personal interest	2,363	334	2,659
Disability / Long term care ins	427	1,192	15
Life insurance payments	4,179	12,716	2,488
Personal property insurance	562	-	659
Miscellaneous	8,149	7,119	4,284
Total cash family living expense	84,033	84,366	83,135
Family living from the farm	-	-	-
Total family living	84,033	84,366	83,135
<b>Other Nonfarm Expenditures</b>			
Income taxes	11,537	7,988	11,340
Furnishing & appliance purchases	681	3,600	-
Nonfarm vehicle purchases	9,797	13,467	10,869
Nonfarm real estate purchases	28,108	-	50,845
Other nonfarm capital purchases	1,457	1,324	2,222
Nonfarm savings & investments	6,138	9,211	1,916
Total other nonfarm expenditures	57,718	35,589	77,191
Total cash family living investment & nonfarm capital purch	141,751	119,955	160,326

**Operator and Labor Information**  
**North Dakota Farm Business Management Education Program**  
**Region 2 - North Central North Dakota, 2022**  
**(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	92	18	19	19
<b>Operator Information</b>				
Average number of operators	1.1	1.0	1.1	1.3
Average age of operators	44.9	36.4	49.2	48.5
Average number of years farming	21.3	14.2	25.2	26.0
<b>Results Per Operator</b>				
Working capital	473,920	115,138	266,585	1,081,528
Total assets (market)	3,031,747	1,467,554	2,814,118	5,042,912
Total liabilities	849,094	760,839	899,598	1,022,964
Net worth (market)	2,182,652	706,714	1,914,520	4,019,948
Net worth excl deferred liabs	2,182,652	706,714	1,914,520	4,019,948
Gross farm income	966,141	372,393	758,277	1,773,894
Total farm expense	685,726	350,797	578,357	1,143,250
Net farm income from operations	280,415	21,596	179,920	630,644
Net nonfarm income	29,038	28,477	24,897	20,254
Family living & tax withdrawals	94,920	52,191	91,843	150,769
Total acres owned	679.0	380.7	898.6	754.2
Total crop acres	1,723.4	790.9	1,488.2	2,820.8
Crop acres owned	404.4	189.7	527.1	522.7
Crop acres cash rented	1,209.9	536.5	903.0	2,076.8
Crop acres share rented	109.1	64.7	58.1	221.4
Total pasture acres	330.6	583.4	459.0	103.9
<b>Labor Analysis</b>				
Number of farms	92	18	19	19
Total unpaid labor hours	2,209	1,722	2,363	2,758
Total hired labor hours	675	169	455	1,701
Total labor hours per farm	2,884	1,892	2,818	4,459
Unpaid hours per operator	1,992	1,722	2,138	2,183
Value of farm production / hour	366.83	189.46	293.64	497.16
Net farm income / unpaid hour	140.76	12.54	84.15	288.84
Average hourly hired labor wage	28.28	24.81	28.55	28.14

**Nonfarm Summary**  
**North Dakota Farm Business Management Education Program**  
**Region 2 - North Central North Dakota, 2022**  
**(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	92	18	19	19
<b>Nonfarm Income</b>				
Personal wages & salary	19,217	14,128	21,717	9,056
Net nonfarm business income	1,538	2,059	1,206	1,357
Personal rental income	326	-	-	283
Personal interest income	49	15	26	175
Tax refunds	1,458	2,253	774	860
Other nonfarm income	9,607	10,023	3,794	13,852
Total nonfarm income	32,194	28,477	27,518	25,583
Gifts and inheritances	1,086	278	211	526
<b>Nonfarm Assets (market)</b>				
Checking & savings	14,448	1,767	12,634	29,601
Stocks & bonds	29,667	2,541	18,896	50,638
Other current assets	2,508	3,450	-	8,875
Furniture & appliances	5,036	6,590	4,789	2,587
Nonfarm vehicles	35,187	14,513	38,924	47,904
Cash value of life ins.	14,802	3,417	9,898	30,830
Retirement accounts	116,109	27,683	77,078	256,492
Other intermediate assets	2,812	1,333	4,466	2,937
Nonfarm real estate	194,591	139,994	130,751	238,947
Personal bus. investment	1,258	-	-	6,094
Other long term assets	23,176	5,041	9,947	78,660
Total nonfarm assets	439,594	206,330	307,384	753,564
<b>Nonfarm Liabilities</b>				
Accrued interest	619	759	890	120
Accounts payable	2,775	1,828	5,878	166
Current notes	380	317	278	239
Princ due on term debt	5,877	3,410	5,101	5,972
Total current liabilities	13,853	6,536	12,411	23,339
Intermediate liabilities	13,523	21,505	14,255	13,976
Long term liabilities	65,151	36,271	60,937	72,309
Total nonfarm liabilities	92,526	64,312	87,603	109,624
Nonfarm net worth	347,068	142,018	219,782	643,940
Nonfarm debt to asset ratio	21 %	31 %	28 %	15 %



**Financial Summary**  
**North Dakota Farm Business Management Education Program**  
**Region 2 - North Central North Dakota, 2022**  
**(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	92	6	12	13	21	31	9
<b>Income Statement</b>							
Gross cash farm income	948,599	66,225	172,058	355,762	741,813	1,325,921	2,611,389
Total cash farm expense	709,563	44,429	138,434	294,208	600,030	1,041,581	1,626,409
Net cash farm income	239,036	21,796	33,624	61,554	141,783	284,341	984,980
Inventory change	139,650	8,410	24,289	86,936	154,673	198,749	218,478
Depreciation	-67,790	-4,882	-7,592	-19,183	-45,327	-101,029	-198,125
Net farm income from operations	310,895	25,324	50,321	129,307	251,128	382,061	1,005,333
Gain or loss on capital sales	13,027	333	-17	3,266	3,820	9,490	86,644
Average net farm income	323,922	25,658	50,303	132,573	254,948	391,551	1,091,977
Median net farm income	195,712	24,408	56,622	131,546	194,206	414,341	873,297
<b>Profitability (cost)</b>							
Rate of return on assets	11.2 %	3.4 %	4.5 %	10.0 %	10.2 %	10.5 %	14.3 %
Rate of return on equity	15.5 %	5.0 %	6.2 %	23.5 %	14.3 %	14.1 %	18.2 %
Operating profit margin	24.3 %	9.2 %	13.0 %	24.2 %	23.2 %	21.1 %	32.6 %
Asset turnover rate	46.1 %	37.1 %	34.3 %	41.1 %	43.9 %	50.1 %	43.9 %
<b>Profitability (market)</b>							
Rate of return on assets	12.5 %	4.5 %	4.8 %	9.7 %	13.0 %	12.2 %	14.5 %
Rate of return on equity	16.3 %	7.6 %	6.3 %	15.3 %	17.5 %	15.6 %	17.9 %
Operating profit margin	32.4 %	12.6 %	16.3 %	33.5 %	35.5 %	29.0 %	37.8 %
Asset turnover rate	38.6 %	36.0 %	29.4 %	28.8 %	36.7 %	42.0 %	38.5 %
<b>Liquidity &amp; Repayment (end of year)</b>							
Current assets	784,455	60,252	146,514	288,515	625,848	1,078,258	2,192,297
Current liabilities	259,022	31,860	78,648	139,556	247,657	378,349	439,027
Current ratio	3.03	1.89	1.86	2.07	2.53	2.85	4.99
Working capital	525,433	28,392	67,866	148,960	378,191	699,909	1,753,270
Change in working capital	106,020	14,303	23,530	29,002	84,800	90,081	492,811
Working capital to gross revenue	49.1 %	39.9 %	33.9 %	33.9 %	42.3 %	47.0 %	63.1 %
Working capital to oper expense	79.2 %	73.7 %	51.3 %	55.6 %	66.1 %	72.0 %	116.1 %
Debt coverage ratio	3.29	1.67	1.29	2.55	2.55	3.47	4.55
Term debt coverage ratio	3.40	1.57	1.33	2.58	2.67	3.60	4.59
Replacement coverage ratio	2.46	1.58	1.21	2.08	2.13	2.45	3.08
Term debt to EBITDA	1.39	1.57	3.45	3.38	1.67	1.23	0.92
<b>Solvency (end of year at cost)</b>							
Number of farms	92	6	12	13	21	31	9
Total assets	2,818,762	257,367	701,854	1,384,215	2,450,241	3,645,815	7,432,168
Total liabilities	941,387	145,774	397,025	828,794	898,673	1,160,181	1,706,288
Net worth	1,877,374	111,593	304,829	555,421	1,551,567	2,485,633	5,725,880
Net worth change	242,138	22,134	45,264	77,829	187,873	288,642	855,078
Farm debt to asset ratio	35 %	61 %	56 %	66 %	38 %	33 %	25 %
Total debt to asset ratio	33 %	57 %	57 %	60 %	37 %	32 %	23 %
Change in earned net worth %	15 %	25 %	17 %	16 %	14 %	13 %	18 %
<b>Solvency (end of year at market)</b>							
Number of farms	92	6	12	13	21	31	9
Total assets	3,361,284	264,720	815,772	1,875,016	2,970,730	4,368,296	8,409,210
Total liabilities	941,387	145,774	397,025	828,794	898,673	1,160,181	1,706,288
Net worth	2,419,897	118,946	418,747	1,046,221	2,072,057	3,208,114	6,702,922
Total net worth change	328,136	25,022	51,236	121,400	284,156	415,395	1,000,094
Farm debt to asset ratio	29 %	59 %	48 %	46 %	31 %	28 %	21 %
Total debt to asset ratio	28 %	55 %	49 %	44 %	30 %	27 %	20 %
Change in total net worth %	16 %	27 %	14 %	13 %	16 %	15 %	18 %
<b>Nonfarm Information</b>							
Net nonfarm income	32,194	32,490	19,361	38,281	36,876	32,895	26,975
Farms reporting living expenses	32	1	2	7	11	11	-
Total family living expense	84,033	-	-	59,701	87,454	108,961	-
Total living, invest, cap. purch	141,751	-	-	119,333	155,036	170,788	-
<b>Crop Acres</b>							
Total crop acres	1,911	104	498	809	1,756	2,676	4,314
Total crop acres owned	448	-	63	349	522	514	1,007
Total crop acres cash rented	1,341	104	284	438	1,160	2,057	2,842
Total crop acres share rented	121	-	150	23	74	106	465
Machinery value per crop acre	436	312	244	284	356	447	561

**Financial Summary**  
**North Dakota Farm Business Management Education Program**  
**Region 2 - North Central North Dakota, 2022**  
**(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	92	20	23	11	21	17
<b>Income Statement</b>						
Gross cash farm income	948,599	354,394	869,023	1,493,102	1,084,694	1,234,882
Total cash farm expense	709,563	273,881	685,310	1,142,827	823,140	834,295
Net cash farm income	239,036	80,513	183,713	350,274	261,554	400,587
Inventory change	139,650	38,388	160,224	285,671	191,276	72,686
Depreciation	-67,790	-15,940	-51,036	-129,758	-87,373	-87,167
Net farm income from operations	310,895	102,962	292,900	506,188	365,456	386,105
Gain or loss on capital sales	13,027	1,910	8,615	16,922	14,948	27,180
Average net farm income	323,922	104,872	301,515	523,110	380,404	413,285
Median net farm income	195,712	37,201	197,217	283,114	280,760	309,114
<b>Profitability (cost)</b>						
Rate of return on assets	11.2 %	10.3 %	13.5 %	12.3 %	10.6 %	9.5 %
Rate of return on equity	15.5 %	19.6 %	22.7 %	21.0 %	13.7 %	10.7 %
Operating profit margin	24.3 %	18.5 %	24.4 %	27.1 %	24.3 %	24.0 %
Asset turnover rate	46.1 %	55.3 %	55.6 %	45.4 %	43.8 %	39.6 %
<b>Profitability (market)</b>						
Rate of return on assets	12.5 %	11.2 %	16.3 %	15.4 %	11.3 %	9.1 %
Rate of return on equity	16.3 %	20.2 %	25.5 %	23.6 %	13.8 %	10.0 %
Operating profit margin	32.4 %	22.1 %	33.2 %	41.3 %	31.8 %	27.8 %
Asset turnover rate	38.6 %	50.9 %	49.0 %	37.2 %	35.5 %	32.9 %
<b>Liquidity &amp; Repayment (end of year)</b>						
Current assets	784,455	261,542	556,305	1,167,314	1,040,519	1,144,273
Current liabilities	259,022	111,218	247,808	523,292	304,442	220,977
Current ratio	3.03	2.35	2.24	2.23	3.42	5.18
Working capital	525,433	150,324	308,497	644,022	736,077	923,296
Change in working capital	106,020	24,918	74,751	136,597	162,516	154,164
Working capital to gross revenue	49.1 %	38.5 %	31.0 %	36.8 %	58.4 %	71.0 %
Working capital to oper expense	79.2 %	57.6 %	49.4 %	62.2 %	94.7 %	114.1 %
Debt coverage ratio	3.29	2.26	3.06	3.20	3.48	4.03
Term debt coverage ratio	3.40	2.33	3.17	3.32	3.54	4.18
Replacement coverage ratio	2.46	2.09	2.58	2.34	2.39	2.67
Term debt to EBITDA	1.39	2.07	1.67	1.91	1.20	0.64
<b>Solvency (end of year at cost)</b>						
Number of farms	92	20	23	11	21	17
Total assets	2,818,762	873,777	2,213,140	4,640,258	3,423,193	4,001,084
Total liabilities	941,387	485,661	1,019,121	2,201,878	936,183	563,185
Net worth	1,877,374	388,117	1,194,019	2,438,380	2,487,010	3,437,899
Net worth change	242,138	82,755	232,399	430,575	272,586	283,281
Farm debt to asset ratio	35 %	56 %	45 %	50 %	30 %	14 %
Total debt to asset ratio	33 %	56 %	46 %	47 %	27 %	14 %
Change in earned net worth %	15 %	27 %	24 %	21 %	12 %	9 %
<b>Solvency (end of year at market)</b>						
Number of farms	92	20	23	11	21	17
Total assets	3,361,284	946,657	2,556,425	5,628,603	4,209,694	4,775,827
Total liabilities	941,387	485,661	1,019,121	2,201,878	936,183	563,185
Net worth	2,419,897	460,997	1,537,304	3,426,725	3,273,511	4,212,642
Total net worth change	328,136	95,805	327,238	679,953	376,012	315,894
Farm debt to asset ratio	29 %	51 %	40 %	41 %	24 %	12 %
Total debt to asset ratio	28 %	51 %	40 %	39 %	22 %	12 %
Change in total net worth %	16 %	26 %	27 %	25 %	13 %	8 %
<b>Nonfarm Information</b>						
Net nonfarm income	32,194	22,380	39,858	38,161	13,542	52,551
Farms reporting living expenses	32	3	14	3	5	7
Total family living expense	84,033	-	85,775	-	107,794	76,167
Total living, invest, cap. purch	141,751	-	142,337	-	146,975	175,322
<b>Crop Acres</b>						
Total crop acres	1,911	792	1,787	3,049	2,388	2,069
Total crop acres owned	448	103	222	854	584	730
Total crop acres cash rented	1,341	612	1,512	1,771	1,701	1,248
Total crop acres share rented	121	78	53	424	102	91
Machinery value per crop acre	436	231	374	513	421	550

**Financial Summary**  
**North Dakota Farm Business Management Education Program**  
**Region 2 - North Central North Dakota, 2022**  
**(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	92	76	9	6
<b>Income Statement</b>				
Gross cash farm income	948,599	1,064,886	154,001	787,533
Total cash farm expense	709,563	791,740	124,007	642,210
Net cash farm income	239,036	273,146	29,994	145,323
Inventory change	139,650	156,588	21,989	128,076
Depreciation	-67,790	-76,328	-7,796	-59,669
Net farm income from operations	310,895	353,405	44,188	213,730
Gain or loss on capital sales	13,027	15,661	-	1,401
Average net farm income	323,922	369,067	44,188	215,131
Median net farm income	195,712	229,746	35,658	272,639
<b>Profitability (cost)</b>				
Rate of return on assets	11.2 %	11.7 %	4.2 %	7.5 %
Rate of return on equity	15.5 %	16.2 %	5.3 %	9.3 %
Operating profit margin	24.3 %	24.7 %	18.3 %	20.4 %
Asset turnover rate	46.1 %	47.6 %	23.0 %	36.9 %
<b>Profitability (market)</b>				
Rate of return on assets	12.5 %	13.1 %	4.2 %	9.1 %
Rate of return on equity	16.3 %	17.0 %	4.9 %	11.2 %
Operating profit margin	32.4 %	32.8 %	22.5 %	28.6 %
Asset turnover rate	38.6 %	39.9 %	18.9 %	31.9 %
<b>Liquidity &amp; Repayment (end of year)</b>				
Current assets	784,455	869,439	149,975	743,250
Current liabilities	259,022	274,818	85,453	345,173
Current ratio	3.03	3.16	1.76	2.15
Working capital	525,433	594,620	64,521	398,077
Change in working capital	106,020	117,852	27,560	82,332
Working capital to gross revenue	49.1 %	49.4 %	35.9 %	45.7 %
Working capital to oper expense	79.2 %	80.0 %	59.4 %	69.9 %
Debt coverage ratio	3.29	3.45	1.39	2.55
Term debt coverage ratio	3.40	3.54	1.45	2.66
Replacement coverage ratio	2.46	2.52	1.30	2.24
Term debt to EBITDA	1.39	1.31	5.71	1.45
<b>Solvency (end of year at cost)</b>				
Number of farms	92	76	9	6
Total assets	2,818,762	3,113,881	800,160	2,444,363
Total liabilities	941,387	1,010,203	539,393	776,047
Net worth	1,877,374	2,103,677	260,767	1,668,316
Net worth change	242,138	273,529	46,946	169,718
Farm debt to asset ratio	35 %	34 %	70 %	32 %
Total debt to asset ratio	33 %	32 %	67 %	32 %
Change in earned net worth %	15 %	15 %	22 %	11 %
<b>Solvency (end of year at market)</b>				
Number of farms	92	76	9	6
Total assets	3,361,284	3,710,433	963,715	2,832,603
Total liabilities	941,387	1,010,203	539,393	776,047
Net worth	2,419,897	2,700,229	424,322	2,056,556
Total net worth change	328,136	371,463	54,762	239,442
Farm debt to asset ratio	29 %	28 %	58 %	28 %
Total debt to asset ratio	28 %	27 %	56 %	27 %
Change in total net worth %	16 %	16 %	15 %	13 %
<b>Nonfarm Information</b>				
Net nonfarm income	32,194	35,105	23,117	10,077
Farms reporting living expenses	32	28	2	2
Total family living expense	84,033	90,362	-	-
Total living, invest, cap. purch	141,751	155,897	-	-
<b>Crop Acres</b>				
Total crop acres	1,911	2,130	518	1,489
Total crop acres owned	448	471	158	618
Total crop acres cash rented	1,341	1,542	228	694
Total crop acres share rented	121	117	131	177
Machinery value per crop acre	436	442	176	472

## 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.

Coronavirus Food Assistance Program 3, a 2020 USDA FSA program that provides producers with financial assistance that gives them the ability to absorb some of the increased marketing costs associated with the COVID-19 pandemic, are included under "Other crop income per acre." "Government payments" are ARC and PLC payments as well as Coronavirus Food Assistance Program 1.

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, 2022**  
**(Farms Sorted By Net Return)**

**Barley on Owned Land**

	<u>Avg. Of All Farms</u>
Number of farms	5
Acres	163.40
Yield per acre (bu.)	65.50
Operators share of yield %	100.00
Value per bu.	7.15
Total product return per acre	468.16
Crop insurance per acre	14.46
Gross return per acre	482.62
<b>Direct Expenses</b>	
Seed and plants	25.80
Fertilizer	89.31
Crop chemicals	38.15
Crop insurance	29.69
Fuel & oil	16.96
Repairs	40.60
Operating interest	3.24
Total direct expenses per acre	243.75
Return over direct exp per acre	238.87
<b>Overhead Expenses</b>	
Custom hire	0.99
Hired labor	13.06
Machinery leases	21.53
RE & pers. property taxes	8.93
Farm insurance	6.47
Utilities	4.35
Dues & professional fees	1.03
Interest	23.93
Mach & bldg depreciation	46.44
Miscellaneous	3.62
Total overhead expenses per acre	130.36
Total dir & ovhd expenses per acre	374.12
Net return per acre	108.50
Government payments	-
Net return with govt pmts	108.50
Labor & management charge	36.65
Net return over lbr & mgt	71.86
<b>Cost of Production</b>	
Total direct expense per bu.	3.72
Total dir & ovhd exp per bu.	5.71
Less govt & other income	5.49
With labor & management	6.05
Net value per unit	7.15
Machinery cost per acre	130.71
Est. labor hours per acre	1.17

**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education Program**  
**Region 2 - North Central North Dakota, 2022**  
**(Farms Sorted By Net Return)**

**Barley on Cash Rent**

	<u>Avg. Of All Farms</u>
Number of farms	9
Acres	371.37
Yield per acre (bu.)	63.72
Operators share of yield %	100.00
Value per bu.	7.13
Total product return per acre	454.39
Crop insurance per acre	28.63
Gross return per acre	483.02
<b>Direct Expenses</b>	
Seed and plants	25.43
Fertilizer	95.45
Crop chemicals	43.39
Crop insurance	23.63
Fuel & oil	21.72
Repairs	54.61
Custom hire	2.75
Land rent	58.61
Hauling and trucking	3.13
Operating interest	6.35
Total direct expenses per acre	335.08
Return over direct exp per acre	147.94
<b>Overhead Expenses</b>	
Custom hire	6.39
Hired labor	13.86
Machinery leases	9.38
Building leases	0.81
Farm insurance	10.17
Utilities	4.90
Dues & professional fees	2.18
Interest	5.21
Mach & bldg depreciation	41.60
Miscellaneous	13.94
Total overhead expenses per acre	108.44
Total dir & ovhd expenses per acre	443.52
Net return per acre	39.50
Government payments	0.01
Net return with govt pmts	39.51
Labor & management charge	41.84
Net return over lbr & mgt	-2.33
<b>Cost of Production</b>	
Total direct expense per bu.	5.26
Total dir & ovhd exp per bu.	6.96
Less govt & other income	6.51
With labor & management	7.17
Net value per unit	7.13
Machinery cost per acre	135.92
Est. labor hours per acre	2.00

**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education Program**  
**Region 2 - North Central North Dakota, 2022**  
**(Farms Sorted By Net Return)**

**Canola on Owned Land**

	<u>Avg. Of All Farms</u>
Number of farms	16
Acres	215.50
Yield per acre (cwt.)	20.21
Operators share of yield %	100.00
Value per cwt.	28.88
Total product return per acre	583.82
Crop insurance per acre	3.80
Other crop income per acre	0.21
Gross return per acre	587.83
<b>Direct Expenses</b>	
Seed and plants	63.38
Fertilizer	105.40
Crop chemicals	43.16
Crop insurance	25.05
Fuel & oil	17.51
Repairs	34.94
Custom hire	8.31
Operating interest	0.80
Miscellaneous	0.72
Total direct expenses per acre	299.27
Return over direct exp per acre	288.55
<b>Overhead Expenses</b>	
Hired labor	16.21
Machinery leases	1.86
Building leases	0.39
RE & pers. property taxes	5.98
Farm insurance	4.98
Utilities	3.01
Dues & professional fees	1.59
Interest	18.60
Mach & bldg depreciation	27.11
Miscellaneous	3.21
Total overhead expenses per acre	82.92
Total dir & ovhd expenses per acre	382.20
Net return per acre	205.63
Government payments	1.50
Net return with govt pmts	207.13
Labor & management charge	36.90
Net return over lbr & mgt	170.23
<b>Cost of Production</b>	
Total direct expense per cwt.	14.80
Total dir & ovhd exp per cwt.	18.91
Less govt & other income	18.63
With labor & management	20.46
Net value per unit	28.88
Machinery cost per acre	88.56
Est. labor hours per acre	1.23

**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education Program**  
**Region 2 - North Central North Dakota, 2022**  
**(Farms Sorted By Net Return)**

**Canola on Cash Rent**

	<u>Avg. Of All Farms</u>	<u>High 20%</u>
Number of farms	21	5
Acres	378.97	295.07
Yield per acre (cwt.)	19.08	20.70
Operators share of yield %	100.00	100.00
Value per cwt.	28.45	28.31
Total product return per acre	542.88	585.93
Crop insurance per acre	8.65	-
Other crop income per acre	0.15	0.83
Gross return per acre	551.69	586.76
<b>Direct Expenses</b>		
Seed and plants	63.68	61.37
Fertilizer	101.75	89.92
Crop chemicals	45.56	39.79
Crop insurance	28.34	26.58
Fuel & oil	18.31	14.82
Repairs	32.63	29.40
Custom hire	3.76	10.24
Land rent	53.34	48.84
Operating interest	2.30	0.13
Miscellaneous	4.13	-
Total direct expenses per acre	353.81	321.08
Return over direct exp per acre	197.88	265.68
<b>Overhead Expenses</b>		
Custom hire	0.27	0.71
Hired labor	8.70	16.26
Machinery leases	4.86	0.08
Building leases	1.97	0.12
Farm insurance	6.17	4.65
Utilities	3.07	2.92
Dues & professional fees	0.71	1.46
Interest	4.07	1.58
Mach & bldg depreciation	38.32	23.93
Miscellaneous	6.61	3.87
Total overhead expenses per acre	74.75	55.59
Total dir & ovhd expenses per acre	428.55	376.67
Net return per acre	123.14	210.09
Government payments	0.94	0.01
Net return with govt pmts	124.08	210.10
Labor & management charge	48.55	34.05
Net return over lbr & mgt	75.53	176.05
<b>Cost of Production</b>		
Total direct expense per cwt.	18.54	15.51
Total dir & ovhd exp per cwt.	22.46	18.20
Less govt & other income	21.95	18.16
With labor & management	24.49	19.80
Net value per unit	28.45	28.31
Machinery cost per acre	96.94	78.70
Est. labor hours per acre	1.32	1.00



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**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education Program**  
**Region 2 - North Central North Dakota, 2022**  
**(Farms Sorted By Net Return)**

**Corn on Owned Land**

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	<u><b>Avg. Of All Farms</b></u>
Number of farms	6
Acres	118.77
Yield per acre (bu.)	105.81
Operators share of yield %	100.00
Value per bu.	5.98
Total product return per acre	632.64
Gross return per acre	632.64
<b>Direct Expenses</b>	
Seed and plants	81.27
Fertilizer	126.26
Crop chemicals	48.02
Crop insurance	31.95
Fuel & oil	25.03
Repairs	56.26
Operating interest	5.33
Miscellaneous	0.18
Total direct expenses per acre	374.30
Return over direct exp per acre	258.34
<b>Overhead Expenses</b>	
Custom hire	0.57
Hired labor	15.87
Machinery leases	7.92
RE & pers. property taxes	8.59
Farm insurance	5.49
Utilities	4.25
Dues & professional fees	2.07
Interest	10.12
Mach & bldg depreciation	38.53
Miscellaneous	3.43
Total overhead expenses per acre	96.85
Total dir & ovhd expenses per acre	471.15
Net return per acre	161.49
Government payments	-
Net return with govt pmts	161.49
Labor & management charge	44.90
Net return over lbr & mgt	116.59
<b>Cost of Production</b>	
Total direct expense per bu.	3.54
Total dir & ovhd exp per bu.	4.45
Less govt & other income	4.45
With labor & management	4.88
Net value per unit	5.98
Machinery cost per acre	130.63
Est. labor hours per acre	1.99

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**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education Program**  
**Region 2 - North Central North Dakota, 2022**  
**(Farms Sorted By Net Return)**

**Corn on Cash Rent**

	<u><b>Avg. Of All Farms</b></u>
Number of farms	8
Acres	156.64
Yield per acre (bu.)	101.98
Operators share of yield %	100.00
Value per bu.	6.00
Total product return per acre	612.41
Crop insurance per acre	2.49
Gross return per acre	614.90
<b>Direct Expenses</b>	
Seed and plants	81.28
Fertilizer	141.08
Crop chemicals	31.57
Crop insurance	25.87
Fuel & oil	34.61
Repairs	70.42
Custom hire	1.40
Land rent	43.17
Operating interest	4.13
Total direct expenses per acre	433.54
Return over direct exp per acre	181.36
<b>Overhead Expenses</b>	
Custom hire	0.33
Hired labor	30.26
Machinery leases	7.72
Farm insurance	5.37
Utilities	4.82
Dues & professional fees	2.22
Interest	2.00
Mach & bldg depreciation	43.00
Miscellaneous	7.22
Total overhead expenses per acre	102.95
Total dir & ovhd expenses per acre	536.48
Net return per acre	78.42
Government payments	0.00
Net return with govt pmts	78.42
Labor & management charge	56.71
Net return over lbr & mgt	21.71
<b>Cost of Production</b>	
Total direct expense per bu.	4.25
Total dir & ovhd exp per bu.	5.26
Less govt & other income	5.24
With labor & management	5.79
Net value per unit	6.00
Machinery cost per acre	157.09
Est. labor hours per acre	1.99

**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education Program**  
**Region 2 - North Central North Dakota, 2022**  
**(Farms Sorted By Net Return)**

**Corn Silage on Owned Land**

	<u>Avg. Of All Farms</u>
Number of farms	6
Acres	56.43
Yield per acre (ton)	9.75
Operators share of yield %	100.00
Value per ton	32.02
Total product return per acre	312.17
Crop insurance per acre	20.47
Gross return per acre	332.64
<b>Direct Expenses</b>	
Seed and plants	59.77
Fertilizer	115.20
Crop chemicals	19.03
Crop insurance	15.60
Fuel & oil	43.73
Repairs	45.04
Custom hire	56.79
Hired labor	22.09
Operating interest	8.06
Total direct expenses per acre	385.33
Return over direct exp per acre	-52.68
<b>Overhead Expenses</b>	
Custom hire	2.86
Hired labor	7.84
Machinery leases	0.32
RE & pers. property taxes	7.70
Farm insurance	2.35
Utilities	6.63
Dues & professional fees	0.81
Interest	15.16
Mach & bldg depreciation	18.78
Miscellaneous	15.24
Total overhead expenses per acre	77.70
Total dir & ovhd expenses per acre	463.03
Net return per acre	-130.39
Government payments	0.53
Net return with govt pmts	-129.86
Labor & management charge	59.60
Net return over lbr & mgt	-189.45
<b>Cost of Production</b>	
Total direct expense per ton	39.53
Total dir & ovhd exp per ton	47.50
Less govt & other income	45.34
With labor & management	51.46
Net value per unit	32.02
Machinery cost per acre	166.02
Est. labor hours per acre	2.86

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**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education Program**  
**Region 2 - North Central North Dakota, 2022**  
**(Farms Sorted By Net Return)**

**Corn Silage on Cash Rent**

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	<u>Avg. Of All Farms</u>
Number of farms	5
Acres	67.34
Yield per acre (ton)	17.87
Operators share of yield %	100.00
Value per ton	33.94
Total product return per acre	606.43
Gross return per acre	606.43
<b>Direct Expenses</b>	
Seed and plants	81.71
Fertilizer	131.17
Crop chemicals	31.69
Crop insurance	16.45
Fuel & oil	41.59
Repairs	44.10
Custom hire	4.95
Hired labor	23.85
Land rent	38.73
Operating interest	3.48
Total direct expenses per acre	417.72
Return over direct exp per acre	188.71
<b>Overhead Expenses</b>	
Custom hire	0.71
Hired labor	2.21
Machinery leases	1.69
Farm insurance	4.96
Utilities	2.54
Dues & professional fees	1.14
Interest	3.25
Mach & bldg depreciation	47.21
Miscellaneous	7.80
Total overhead expenses per acre	71.51
Total dir & ovhd expenses per acre	489.23
Net return per acre	117.20
Government payments	0.05
Net return with govt pmts	117.25
Labor & management charge	51.43
Net return over lbr & mgt	65.82
<b>Cost of Production</b>	
Total direct expense per ton	23.38
Total dir & ovhd exp per ton	27.38
Less govt & other income	27.38
With labor & management	30.26
Net value per unit	33.94
Machinery cost per acre	141.06
Est. labor hours per acre	2.08

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**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education Program**  
**Region 2 - North Central North Dakota, 2022**  
**(Farms Sorted By Net Return)**

**CRP on Owned Land**

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	<u>Avg. Of All Farms</u>
Number of farms	6
Acres	122.46
Gross return per acre	43.36
<b>Direct Expenses</b>	
Seed and plants	2.14
Crop insurance	1.87
Fuel & oil	0.76
Repairs	0.98
Custom hire	0.81
Miscellaneous	0.04
Total direct expenses per acre	6.61
Return over direct exp per acre	36.76
<b>Overhead Expenses</b>	
Hired labor	0.12
Machinery leases	0.10
RE & pers. property taxes	5.40
Interest	10.82
Mach & bldg depreciation	1.03
Miscellaneous	0.56
Total overhead expenses per acre	18.02
Total dir & ovhd expenses per acre	24.63
Net return per acre	18.74
Government payments	-
Net return with govt pmts	18.74
Labor & management charge	1.35
Net return over lbr & mgt	17.39
Net value per unit	1.00
Machinery cost per acre	3.75
Est. labor hours per acre	0.04

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**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education Program**  
**Region 2 - North Central North Dakota, 2022**  
**(Farms Sorted By Net Return)**

**Hay, Alfalfa on Owned Land**

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	<u>Avg. Of All Farms</u>
Number of farms	7
Acres	75.96
Yield per acre (ton)	2.12
Operators share of yield %	100.00
Value per ton	103.19
Total product return per acre	218.63
Gross return per acre	218.63
<b>Direct Expenses</b>	
Seed and plants	6.11
Fertilizer	5.03
Crop chemicals	2.19
Fuel & oil	16.20
Repairs	15.62
Machinery leases	3.01
Operating interest	2.91
Total direct expenses per acre	51.06
Return over direct exp per acre	167.57
<b>Overhead Expenses</b>	
Custom hire	1.28
Hired labor	0.96
Machinery leases	2.61
RE & pers. property taxes	5.85
Farm insurance	2.58
Utilities	7.16
Dues & professional fees	0.78
Interest	19.41
Mach & bldg depreciation	8.61
Miscellaneous	0.08
Total overhead expenses per acre	49.33
Total dir & ovhd expenses per acre	100.39
Net return per acre	118.24
Government payments	-
Net return with govt pmts	118.24
Labor & management charge	18.60
Net return over lbr & mgt	99.64
<b>Cost of Production</b>	
Total direct expense per ton	24.10
Total dir & ovhd exp per ton	47.38
Less govt & other income	47.38
With labor & management	56.16
Net value per unit	103.19
Machinery cost per acre	47.06
Est. labor hours per acre	0.86

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**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education Program**  
**Region 2 - North Central North Dakota, 2022**  
**(Farms Sorted By Net Return)**

**Hay, Grass on Cash Rent**

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	<u><b>Avg. Of All Farms</b></u>
Number of farms	5
Acres	99.84
Yield per acre (ton)	1.37
Operators share of yield %	100.00
Value per ton	52.90
Total product return per acre	72.22
Gross return per acre	72.22
 <b>Direct Expenses</b>	
Fuel & oil	10.05
Repairs	11.65
Land rent	8.19
Operating interest	1.30
Total direct expenses per acre	31.19
Return over direct exp per acre	41.03
 <b>Overhead Expenses</b>	
Custom hire	0.10
Hired labor	0.87
Machinery leases	2.66
Farm insurance	0.80
Utilities	0.35
Dues & professional fees	0.28
Mach & bldg depreciation	5.84
Miscellaneous	1.21
Total overhead expenses per acre	12.12
Total dir & ovhd expenses per acre	43.31
Net return per acre	28.91
 Government payments	
	-
Net return with govt pmts	28.91
Labor & management charge	17.09
Net return over lbr & mgt	11.82
 <b>Cost of Production</b>	
Total direct expense per ton	22.85
Total dir & ovhd exp per ton	31.72
Less govt & other income	31.72
With labor & management	44.24
 Net value per unit	
	52.90
Machinery cost per acre	28.72
Est. labor hours per acre	0.76

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**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education Program**  
**Region 2 - North Central North Dakota, 2022**  
**(Farms Sorted By Net Return)**

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

	<b>Avg. Of All Farms</b>
Number of farms	5
Acres	81.80
Yield per acre (ton)	1.82
Operators share of yield %	100.00
Value per ton	76.18
Total product return per acre	138.30
Gross return per acre	138.30
<b>Direct Expenses</b>	
Fuel & oil	15.80
Repairs	16.31
Land rent	21.70
Operating interest	0.90
Total direct expenses per acre	54.70
Return over direct exp per acre	83.60
<b>Overhead Expenses</b>	
Custom hire	0.28
Hired labor	1.39
Farm insurance	2.53
Utilities	0.80
Dues & professional fees	2.78
Interest	3.22
Mach & bldg depreciation	10.70
Miscellaneous	0.57
Total overhead expenses per acre	22.27
Total dir & ovhd expenses per acre	76.97
Net return per acre	61.33
Government payments	-
Net return with govt pmts	61.33
Labor & management charge	25.70
Net return over lbr & mgt	35.63
<b>Cost of Production</b>	
Total direct expense per ton	30.13
Total dir & ovhd exp per ton	42.40
Less govt & other income	42.40
With labor & management	56.56
Net value per unit	76.18
Machinery cost per acre	46.50
Est. labor hours per acre	1.14



**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education Program**  
**Region 2 - North Central North Dakota, 2022**  
**(Farms Sorted By Net Return)**

**Hay, Small Grain on Cash Rent**

	<b>Avg. Of All Farms</b>
Number of farms	7
Acres	115.05
Yield per acre (ton)	2.12
Operators share of yield %	100.00
Value per ton	53.10
Total product return per acre	112.73
Gross return per acre	112.73
<b>Direct Expenses</b>	
Seed and plants	20.71
Fertilizer	9.17
Crop chemicals	8.38
Fuel & oil	12.07
Repairs	22.57
Land rent	41.94
Operating interest	2.01
Total direct expenses per acre	116.84
Return over direct exp per acre	-4.11
<b>Overhead Expenses</b>	
Hired labor	3.35
Machinery leases	2.35
Farm insurance	4.54
Utilities	2.70
Dues & professional fees	1.01
Interest	2.25
Mach & bldg depreciation	11.15
Miscellaneous	4.06
Total overhead expenses per acre	31.40
Total dir & ovhd expenses per acre	148.24
Net return per acre	-35.51
Government payments	0.02
Net return with govt pmts	-35.50
Labor & management charge	18.79
Net return over lbr & mgt	-54.28
<b>Cost of Production</b>	
Total direct expense per ton	55.04
Total dir & ovhd exp per ton	69.83
Less govt & other income	69.83
With labor & management	78.67
Net value per unit	53.10
Machinery cost per acre	49.90
Est. labor hours per acre	0.94

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**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education Program**  
**Region 2 - North Central North Dakota, 2022**  
**(Farms Sorted By Net Return)**

**Pasture on Owned Land**

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	<b>Avg. Of All Farms</b>
Number of farms	10
Acres	479.73
Yield per acre (aum)	0.66
Operators share of yield %	100.00
Value per aum	27.39
Total product return per acre	17.96
Other crop income per acre	0.18
Gross return per acre	18.14
<b>Direct Expenses</b>	
Crop chemicals	2.96
Crop insurance	1.14
Fuel & oil	0.48
Repairs	0.79
Miscellaneous	0.06
Total direct expenses per acre	5.43
Return over direct exp per acre	12.71
<b>Overhead Expenses</b>	
RE & pers. property taxes	2.93
Interest	3.08
Mach & bldg depreciation	0.34
Miscellaneous	0.59
Total overhead expenses per acre	6.94
Total dir & ovhd expenses per acre	12.37
Net return per acre	5.77
Government payments	-
Net return with govt pmts	5.77
Labor & management charge	0.67
Net return over lbr & mgt	5.10
<b>Cost of Production</b>	
Total direct expense per aum	8.28
Total dir & ovhd exp per aum	18.86
Less govt & other income	18.59
With labor & management	19.62
Net value per unit	27.39
Machinery cost per acre	1.76
Est. labor hours per acre	0.03

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**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education Program**  
**Region 2 - North Central North Dakota, 2022**  
**(Farms Sorted By Net Return)**

**Pasture on Cash Rent**

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	<u><b>Avg. Of All Farms</b></u>
Number of farms	16
Acres	834.01
Yield per acre (aum)	0.75
Operators share of yield %	100.00
Value per aum	22.19
Total product return per acre	16.68
Other crop income per acre	0.02
Gross return per acre	16.70
 <b>Direct Expenses</b>	
Crop insurance	0.37
Fuel & oil	0.52
Repairs	0.74
Land rent	14.68
Miscellaneous	0.15
Total direct expenses per acre	16.46
Return over direct exp per acre	0.24
 <b>Overhead Expenses</b>	
Miscellaneous	1.19
Total overhead expenses per acre	1.19
Total dir & ovhd expenses per acre	17.65
Net return per acre	-0.95
 Government payments	
Net return with govt pmts	-
Labor & management charge	-0.95
Net return over lbr & mgt	0.95
 <b>Cost of Production</b>	
Total direct expense per aum	21.89
Total dir & ovhd exp per aum	23.48
Less govt & other income	23.45
With labor & management	24.71
 Net value per unit	
Net value per unit	22.19
Machinery cost per acre	1.77
Est. labor hours per acre	0.05

**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education Program**  
**Region 2 - North Central North Dakota, 2022**  
**(Farms Sorted By Net Return)**

**Peas, Dry Edible on Cash Rent**

	<u><b>Avg. Of All Farms</b></u>
Number of farms	5
Acres	406.16
Yield per acre (bu.)	28.63
Operators share of yield %	100.00
Value per bu.	11.75
Total product return per acre	336.48
Crop insurance per acre	14.82
Gross return per acre	351.30
<b>Direct Expenses</b>	
Seed and plants	61.49
Fertilizer	2.58
Crop chemicals	49.38
Crop insurance	20.03
Fuel & oil	24.46
Repairs	63.02
Custom hire	2.58
Land rent	60.83
Operating interest	8.13
Miscellaneous	6.00
Total direct expenses per acre	298.52
Return over direct exp per acre	52.79
<b>Overhead Expenses</b>	
Custom hire	11.17
Hired labor	8.35
Machinery leases	19.60
Building leases	2.14
Farm insurance	8.23
Utilities	3.85
Dues & professional fees	1.28
Interest	7.47
Mach & bldg depreciation	43.84
Miscellaneous	11.51
Total overhead expenses per acre	117.44
Total dir & ovhd expenses per acre	415.95
Net return per acre	-64.65
Government payments	0.10
Net return with govt pmts	-64.55
Labor & management charge	48.39
Net return over lbr & mgt	-112.95
<b>Cost of Production</b>	
Total direct expense per bu.	10.43
Total dir & ovhd exp per bu.	14.53
Less govt & other income	14.01
With labor & management	15.70
Net value per unit	11.75
Machinery cost per acre	167.24
Est. labor hours per acre	1.75

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**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education Program**  
**Region 2 - North Central North Dakota, 2022**  
**(Farms Sorted By Net Return)**

**Prevented planting on Owned Land**

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	<u><b>Avg. Of All Farms</b></u>
Number of farms	12
Acres	160.91
Gross return per acre	253.17
<b>Direct Expenses</b>	
Seed and plants	3.37
Fertilizer	5.00
Crop chemicals	13.30
Crop insurance	19.56
Fuel & oil	6.16
Repairs	15.37
Custom hire	1.01
Operating interest	0.37
Total direct expenses per acre	64.12
Return over direct exp per acre	189.05
<b>Overhead Expenses</b>	
Hired labor	5.99
RE & pers. property taxes	6.79
Farm insurance	4.33
Utilities	3.84
Dues & professional fees	1.80
Interest	30.22
Mach & bldg depreciation	13.61
Miscellaneous	2.43
Total overhead expenses per acre	69.02
Total dir & ovhd expenses per acre	133.14
Net return per acre	120.03
Government payments	0.01
Net return with govt pmts	120.04
Labor & management charge	13.48
Net return over lbr & mgt	106.56
Net value per unit	1.00
Machinery cost per acre	38.62
Est. labor hours per acre	0.44

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**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education Program**  
**Region 2 - North Central North Dakota, 2022**  
**(Farms Sorted By Net Return)**

**Prevented planting on Cash Rent**

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	<u>Avg. Of All Farms</u>
Number of farms	13
Acres	293.18
Gross return per acre	249.53
<b>Direct Expenses</b>	
Seed and plants	2.28
Fertilizer	0.97
Crop chemicals	15.35
Crop insurance	22.43
Fuel & oil	6.42
Repairs	17.23
Custom hire	0.97
Land rent	37.92
Operating interest	1.10
Total direct expenses per acre	104.67
Return over direct exp per acre	144.87
<b>Overhead Expenses</b>	
Hired labor	5.76
Machinery leases	0.63
Building leases	0.15
Farm insurance	5.19
Utilities	3.57
Dues & professional fees	1.52
Interest	1.58
Mach & bldg depreciation	11.70
Miscellaneous	4.42
Total overhead expenses per acre	34.51
Total dir & ovhd expenses per acre	139.18
Net return per acre	110.35
Government payments	0.03
Net return with govt pmts	110.38
Labor & management charge	13.50
Net return over lbr & mgt	96.88
Net value per unit	0.58
Machinery cost per acre	37.33
Est. labor hours per acre	0.57

**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education Program**  
**Region 2 - North Central North Dakota, 2022**  
**(Farms Sorted By Net Return)**

**Soybeans on Owned Land**

	<u>Avg. Of All Farms</u>	<u>High 20%</u>
Number of farms	21	5
Acres	275.56	360.62
Yield per acre (bu.)	34.95	49.04
Operators share of yield %	100.00	100.00
Value per bu.	13.95	13.88
Total product return per acre	487.65	680.64
Crop insurance per acre	7.86	1.36
Other crop income per acre	0.36	-
Gross return per acre	495.86	682.00
<b>Direct Expenses</b>		
Seed and plants	64.86	58.43
Fertilizer	14.70	17.27
Crop chemicals	44.90	34.14
Crop insurance	23.01	23.65
Fuel & oil	16.05	12.60
Repairs	28.68	20.66
Custom hire	6.98	-
Machinery leases	2.21	5.55
Operating interest	1.86	1.15
Miscellaneous	0.00	-
Total direct expenses per acre	203.25	173.45
Return over direct exp per acre	292.61	508.54
<b>Overhead Expenses</b>		
Hired labor	8.91	11.45
Machinery leases	5.85	0.46
Building leases	0.48	0.60
RE & pers. property taxes	9.91	12.86
Farm insurance	6.03	5.48
Utilities	4.11	4.16
Dues & professional fees	1.79	1.35
Interest	24.49	39.27
Mach & bldg depreciation	45.85	72.37
Miscellaneous	3.49	1.09
Total overhead expenses per acre	110.92	149.09
Total dir & ovhd expenses per acre	314.17	322.55
Net return per acre	181.69	359.45
Government payments	0.01	-
Net return with govt pmts	181.70	359.45
Labor & management charge	39.19	35.66
Net return over lbr & mgt	142.52	323.79
<b>Cost of Production</b>		
Total direct expense per bu.	5.82	3.54
Total dir & ovhd exp per bu.	8.99	6.58
Less govt & other income	8.75	6.55
With labor & management	9.88	7.28
Net value per unit	13.95	13.88
Machinery cost per acre	106.65	109.62
Est. labor hours per acre	1.28	1.01

**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education Program**  
**Region 2 - North Central North Dakota, 2022**  
**(Farms Sorted By Net Return)**

**Soybeans on Cash Rent**

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	33	6	6	7
Acres	398.03	496.20	293.25	194.79
Yield per acre (bu.)	31.55	27.50	34.58	40.10
Operators share of yield %	100.00	100.00	100.00	100.00
Value per bu.	13.59	13.54	13.82	14.02
Total product return per acre	428.69	372.29	477.85	562.26
Crop insurance per acre	8.57	20.05	-	3.76
Other crop income per acre	0.33	1.45	-	-
Gross return per acre	437.59	393.80	477.85	566.01
<b>Direct Expenses</b>				
Seed and plants	62.36	65.52	53.70	61.47
Fertilizer	11.78	21.10	8.59	13.83
Crop chemicals	42.88	54.57	59.57	30.23
Crop insurance	21.69	21.21	33.41	18.44
Fuel & oil	21.42	27.12	17.24	23.35
Repairs	40.35	51.51	32.55	20.11
Custom hire	1.74	1.35	-	-
Land rent	57.39	61.90	58.25	59.93
Machinery leases	1.69	4.38	-	5.72
Operating interest	3.20	3.57	1.86	1.51
Miscellaneous	0.48	-	3.45	-
Total direct expenses per acre	264.99	312.24	268.62	234.58
Return over direct exp per acre	172.60	81.56	209.24	331.43
<b>Overhead Expenses</b>				
Hired labor	8.90	14.54	11.05	6.69
Machinery leases	4.94	1.15	13.00	1.77
Building leases	0.41	0.05	1.46	0.24
Farm insurance	6.23	6.50	6.57	4.09
Utilities	4.19	4.09	4.40	4.76
Dues & professional fees	1.44	1.25	2.06	0.80
Interest	3.58	7.24	3.15	2.69
Mach & bldg depreciation	35.86	37.56	46.53	47.03
Miscellaneous	5.21	0.90	3.11	4.57
Total overhead expenses per acre	70.77	73.28	91.34	72.63
Total dir & ovhd expenses per acre	335.75	385.52	359.96	307.21
Net return per acre	101.84	8.28	117.90	258.80
Government payments	0.46	0.04	-	-
Net return with govt pmts	102.29	8.32	117.90	258.80
Labor & management charge	39.57	38.14	47.71	54.16
Net return over lbr & mgt	62.72	-29.82	70.19	204.63
<b>Cost of Production</b>				
Total direct expense per bu.	8.40	11.35	7.77	5.85
Total dir & ovhd exp per bu.	10.64	14.02	10.41	7.66
Less govt & other income	10.34	13.23	10.41	7.57
With labor & management	11.60	14.62	11.79	8.92
Net value per unit	13.59	13.54	13.82	14.02
Machinery cost per acre	106.92	128.87	110.03	99.30
Est. labor hours per acre	1.53	1.45	1.67	2.38



**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education Program**  
**Region 2 - North Central North Dakota, 2022**  
**(Farms Sorted By Net Return)**

**Wheat, Spring on Owned Land**

	<u>Avg. Of All Farms</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	24	5	5
Acres	282.16	138.73	413.19
Yield per acre (bu.)	56.90	47.07	72.31
Operators share of yield %	100.00	100.00	100.00
Value per bu.	8.69	8.62	8.75
Other product return per acre	0.53	-	0.29
Total product return per acre	495.04	405.56	632.88
Crop insurance per acre	8.21	53.45	-
Other crop income per acre	0.55	-	-
Gross return per acre	503.79	459.01	632.88
<b>Direct Expenses</b>			
Seed and plants	25.78	33.82	26.93
Fertilizer	106.74	82.76	122.89
Crop chemicals	40.83	48.47	49.50
Crop insurance	27.90	22.05	24.40
Fuel & oil	18.13	19.97	11.44
Repairs	31.64	28.78	24.80
Custom hire	4.23	-	5.72
Machinery leases	2.37	23.13	-
Operating interest	1.97	5.03	1.24
Miscellaneous	0.19	0.99	-
Total direct expenses per acre	259.78	264.99	266.93
Return over direct exp per acre	244.02	194.02	365.95
<b>Overhead Expenses</b>			
Custom hire	0.82	0.05	1.43
Hired labor	4.62	2.26	7.73
Machinery leases	3.55	2.59	0.32
Building leases	0.21	0.06	0.19
RE & pers. property taxes	9.65	11.91	9.29
Farm insurance	5.66	7.36	5.46
Utilities	4.34	6.69	2.59
Dues & professional fees	1.22	2.11	1.02
Interest	18.16	29.36	12.77
Mach & bldg depreciation	33.18	27.60	37.65
Miscellaneous	3.76	3.41	2.01
Total overhead expenses per acre	85.18	93.41	80.45
Total dir & ovhd expenses per acre	344.95	358.40	347.38
Net return per acre	158.84	100.61	285.50
Government payments	1.56	5.66	-
Net return with govt pmts	160.40	106.27	285.50
Labor & management charge	38.43	37.24	40.53
Net return over lbr & mgt	121.97	69.03	244.97
<b>Cost of Production</b>			
Total direct expense per bu.	4.57	5.63	3.69
Total dir & ovhd exp per bu.	6.06	7.61	4.80
Less govt & other income	5.87	6.36	4.80
With labor & management	6.55	7.15	5.36
Net value per unit	8.69	8.62	8.75
Machinery cost per acre	93.63	100.83	77.98
Est. labor hours per acre	1.22	1.20	1.07

**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education Program**  
**Region 2 - North Central North Dakota, 2022**  
**(Farms Sorted By Net Return)**

**Wheat, Spring on Cash Rent**

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	35	7	7	7
Acres	458.21	491.76	271.73	554.68
Yield per acre (bu.)	52.73	38.73	42.67	70.04
Operators share of yield %	100.00	100.00	100.00	100.00
Value per bu.	8.74	8.74	8.89	8.74
Other product return per acre	0.14	-	1.19	-
Total product return per acre	461.15	338.58	380.59	612.43
Crop insurance per acre	13.93	18.35	33.19	-
Other crop income per acre	0.18	-	-	-
Gross return per acre	475.25	356.93	413.78	612.43
<b>Direct Expenses</b>				
Seed and plants	23.08	26.81	17.33	18.19
Fertilizer	103.36	111.85	49.54	115.81
Crop chemicals	43.83	44.73	24.47	56.14
Crop insurance	27.52	32.97	23.87	23.09
Fuel & oil	17.32	18.78	23.98	14.90
Repairs	33.12	46.58	24.82	32.04
Custom hire	4.62	-	-	7.89
Land rent	54.64	59.15	52.36	50.93
Machinery leases	1.09	1.90	-	1.93
Operating interest	2.54	5.91	1.60	0.89
Miscellaneous	1.50	-	0.06	-
Total direct expenses per acre	312.63	348.68	218.05	321.81
Return over direct exp per acre	162.62	8.26	195.73	290.62
<b>Overhead Expenses</b>				
Custom hire	0.35	0.99	0.03	-
Hired labor	8.69	4.01	3.92	22.75
Machinery leases	5.30	13.40	8.50	0.02
Building leases	0.66	0.22	-	0.26
Farm insurance	5.51	6.90	5.80	5.28
Utilities	3.74	4.89	3.96	4.06
Dues & professional fees	1.61	2.39	0.38	2.43
Interest	3.22	3.50	2.56	1.59
Mach & bldg depreciation	36.08	28.45	66.02	37.41
Miscellaneous	2.61	3.79	3.48	1.18
Total overhead expenses per acre	67.76	68.52	94.66	74.99
Total dir & ovhd expenses per acre	380.39	417.20	312.71	396.80
Net return per acre	94.86	-60.27	101.07	215.64
Government payments	0.22	-	0.01	-
Net return with govt pmts	95.08	-60.27	101.08	215.64
Labor & management charge	40.87	28.91	53.99	42.67
Net return over lbr & mgt	54.21	-89.18	47.09	172.97
<b>Cost of Production</b>				
Total direct expense per bu.	5.93	9.00	5.11	4.59
Total dir & ovhd exp per bu.	7.21	10.77	7.33	5.67
Less govt & other income	6.94	10.30	6.52	5.67
With labor & management	7.72	11.04	7.79	6.27
Net value per unit	8.74	8.74	8.89	8.74
Machinery cost per acre	98.33	110.49	125.17	93.32
Est. labor hours per acre	1.42	1.16	3.00	1.38

## 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**  
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**(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	7
	Quantity                      Value
Beef Calves sold (lb)	68.07                      122.61
Cull sales (lb)	-                              44.46
Purchased (lb)	-0.03                      -80.18
Transferred in (lb)	-                              -35.81
Inventory change (lb)	31.96                      97.04
Gross margin	148.11
<b>Direct Expenses</b>	
Protein Vit Minerals (lb.)	6.13                      3.68
Complete Ration (lb.)	13.96                      2.02
Corn (bu.)	0.42                      2.50
Corn Silage (lb.)	522.68                      8.09
Hay, Grass (lb.)	1,345.04                      37.19
Pasture (aum)	1.47                      29.46
DDGS, dry (lb.)	61.21                      8.22
Other feed stuffs (lb)	158.42                      3.70
Veterinary	6.35
Supplies	4.43
Fuel & oil	8.69
Repairs	14.89
Operating interest	1.35
Miscellaneous	2.68
Total direct expenses	133.24
Return over direct expense	14.87
<b>Overhead Expenses</b>	
Farm insurance	2.21
Utilities	1.55
Interest	3.95
Mach & bldg depreciation	6.30
Miscellaneous	3.71
Total overhead expenses	17.72
Total dir & ovhd expenses	150.96
Net return	-2.85
Labor & management charge	32.11
Net return over lbr & mgt	-34.96
<b>Cost of Production Per Cwt. Produced</b>	
Total direct expense per unit	133.24
Total dir & ovhd expense per unit	150.96
With other revenue adjustments	184.85
With labor and management	216.97
Est. labor hours per unit	1.41
<b>Other Information</b>	
Number of cows	86.4
Pregnancy percentage	94.9
Pregnancy loss percentage	0.2
Culling percentage	25.0
Calving percentage	94.7
Weaning percentage	82.0
Calves sold per cow	0.64
Calf death loss percent	13.3
Cow death loss percent	3.6
Cows per FTE	401.8
Average weaning weight	515
Lb. weaned/exposed female	422
Feed cost per cow	468.83
Avg wgt/ Beef Calves sold	525
Avg price / cwt.	180.12

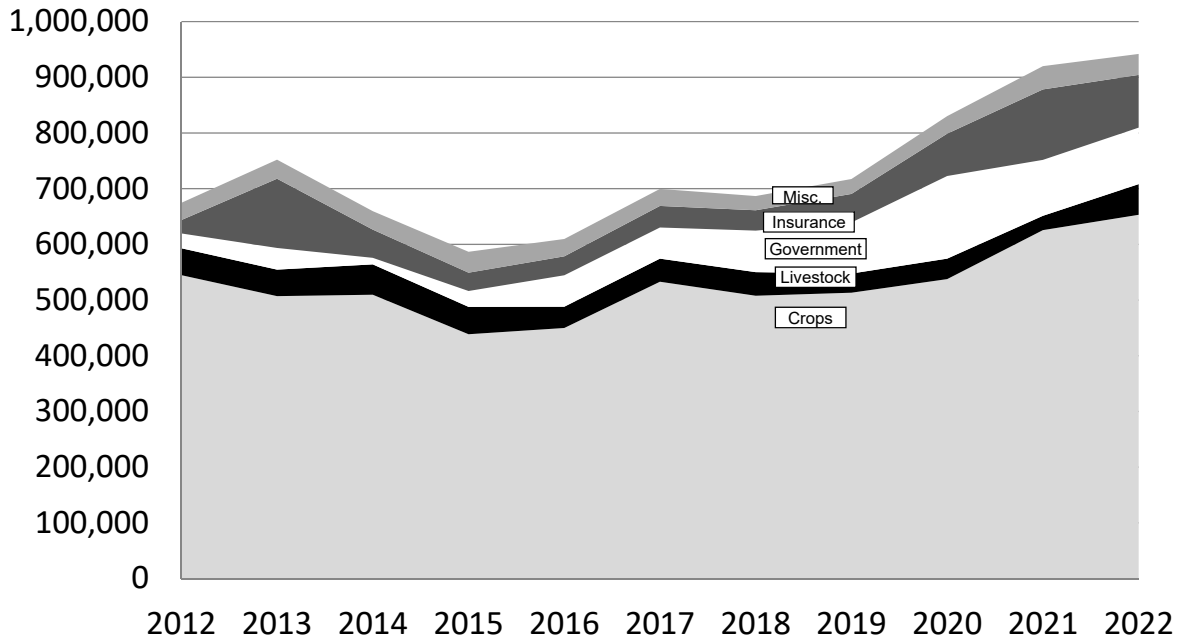
**Livestock Enterprise Analysis**  
**North Dakota Farm Business Management Education Program**  
**Region 2 - North Central North Dakota, 2022**  
**(Farms Sorted By Net Return)**

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

	<u>Avg. Of All Farms</u>
Number of farms	7
	Quantity                      Value
Beef Calves sold (lb)	336.5                      606.04
Cull sales (lb)	-                              219.74
Purchased (lb)	-0.2                         -396.32
Transferred in (lb)	-                              -177.02
Inventory change (lb)	158.0                        479.65
Gross margin	732.09
<b>Direct Expenses</b>	
Protein Vit Minerals (lb.)	30.3                        18.17
Complete Ration (lb.)	69.0                        10.00
Corn (bu.)	2.1                           12.36
Corn Silage (lb.)	2,583.5                    39.97
Hay, Grass (lb.)	6,648.4                    183.81
Pasture (aum)	7.3                           145.61
DDGS, dry (lb.)	302.5                       40.64
Other feed stuffs (lb)	783.1                       18.27
Veterinary	31.39
Supplies	21.88
Fuel & oil	42.97
Repairs	73.59
Livestock leases	4.13
Miscellaneous	15.80
Total direct expenses	658.58
Return over direct expense	73.51
<b>Overhead Expenses</b>	
Hired labor	4.91
Utilities	7.67
Interest	19.53
Mach & bldg depreciation	31.12
Miscellaneous	24.35
Total overhead expenses	87.58
Total dir & ovhd expenses	746.17
Net return	-14.08
Labor & management charge	158.73
Net return over lbr & mgt	-172.80
<b>Cost of Production Per Cwt. Produced</b>	
Total direct expense per unit	133.24
Total dir & ovhd expense per unit	150.96
With other revenue adjustments	184.85
With labor and management	216.97
Est. labor hours per unit	6.97
<b>Other Information</b>	
Number of cows	86.4
Pregnancy percentage	94.9
Pregnancy loss percentage	0.2
Culling percentage	25.0
Calving percentage	94.7
Weaning percentage	82.0
Calves sold per cow	0.64
Calf death loss percent	13.3
Cow death loss percent	3.6
Cows per FTE	401.8
Average weaning weight	515
Lb. weaned/exposed female	422
Feed cost per cow	468.83
Avg wgt/ Beef Calves sold	525
Avg price / cwt.	180.12

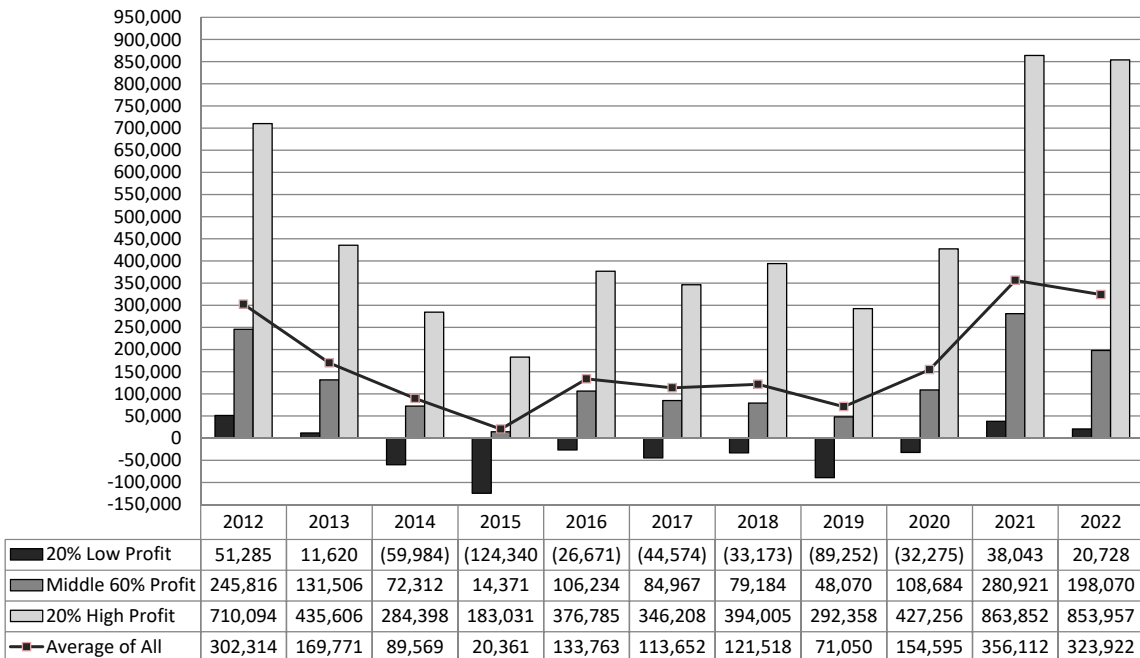
## Figure 1. Gross Cash Income Per Farm

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



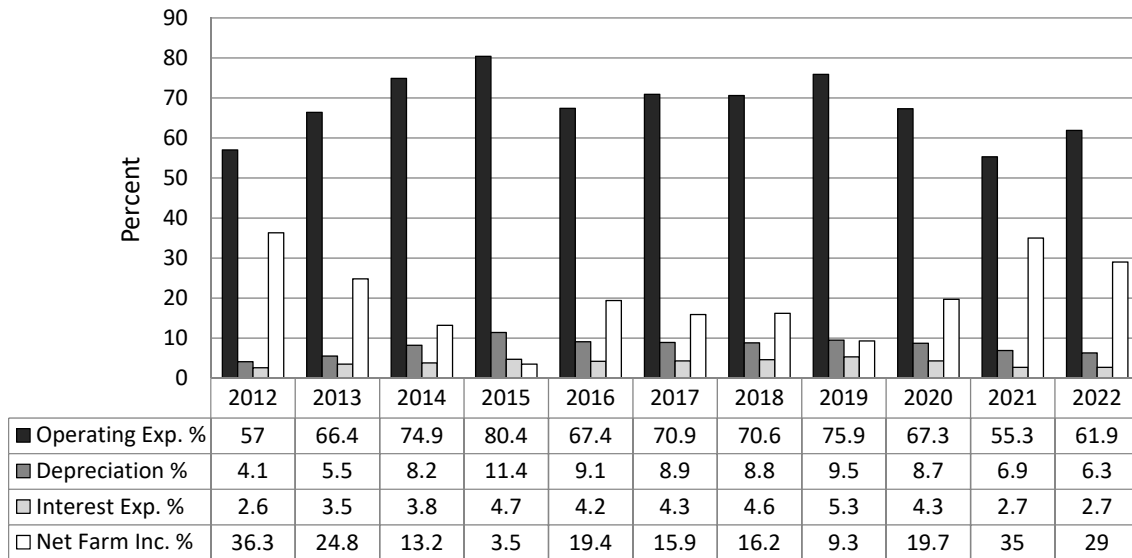
## Figure 2. Net Farm Income (Accrual) Per Farm

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



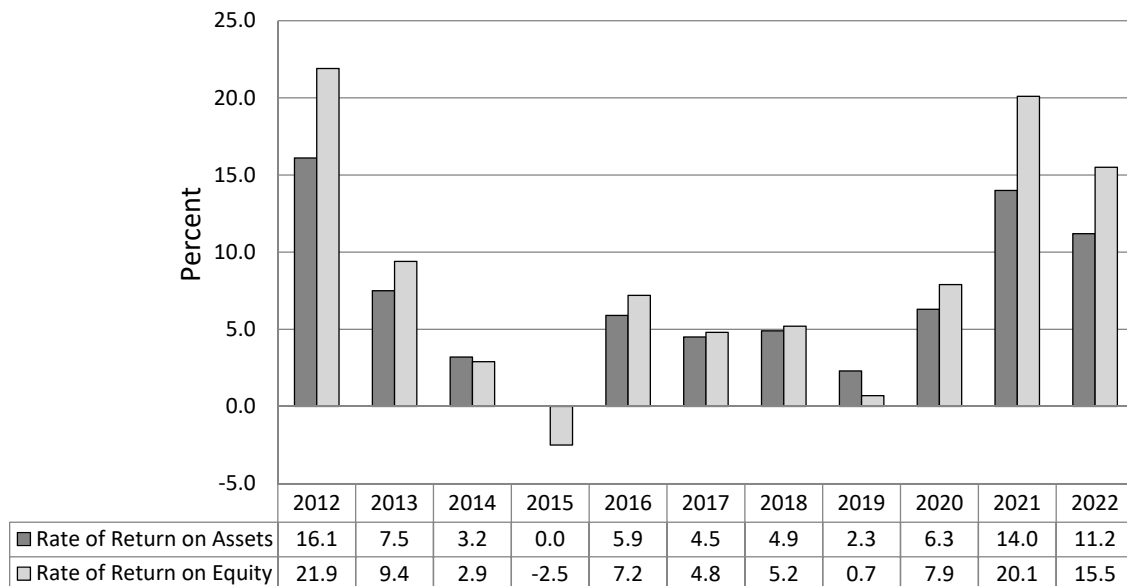
### Figure 3. Financial Efficiency Measures (As Percent of Gross Revenue)

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



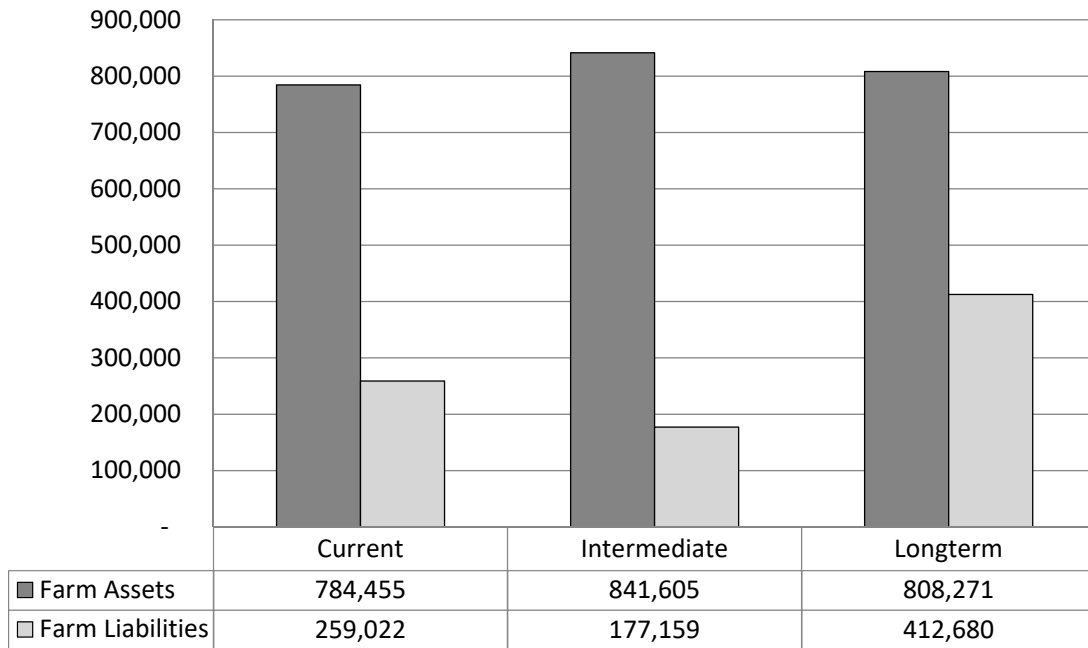
### Figure 4. Profitability Measures Per Farm

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



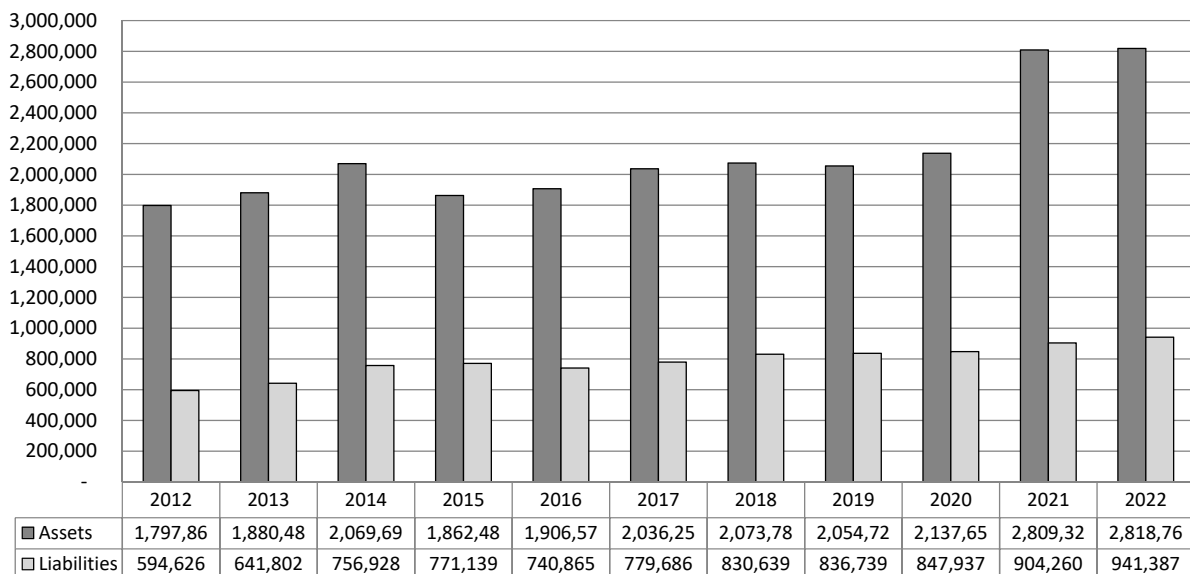
## Figure 5. Assets and Liabilities Per Farm, 2022

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



## Figure 6. Total Farm Assets and Liabilities

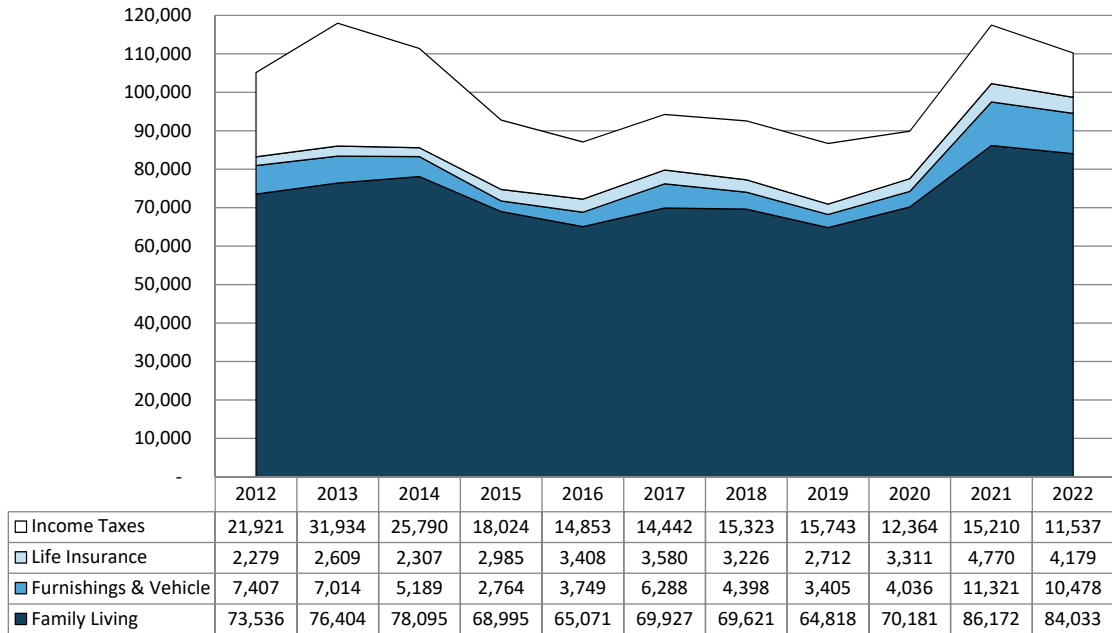
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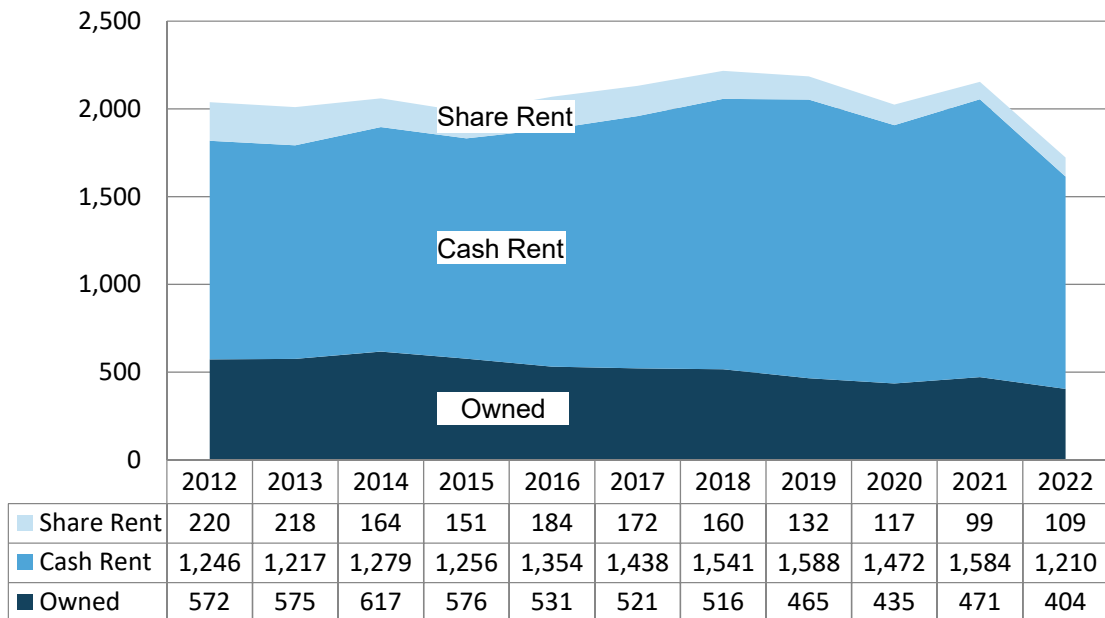
## Figure 7. Household and Personal Expenses

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



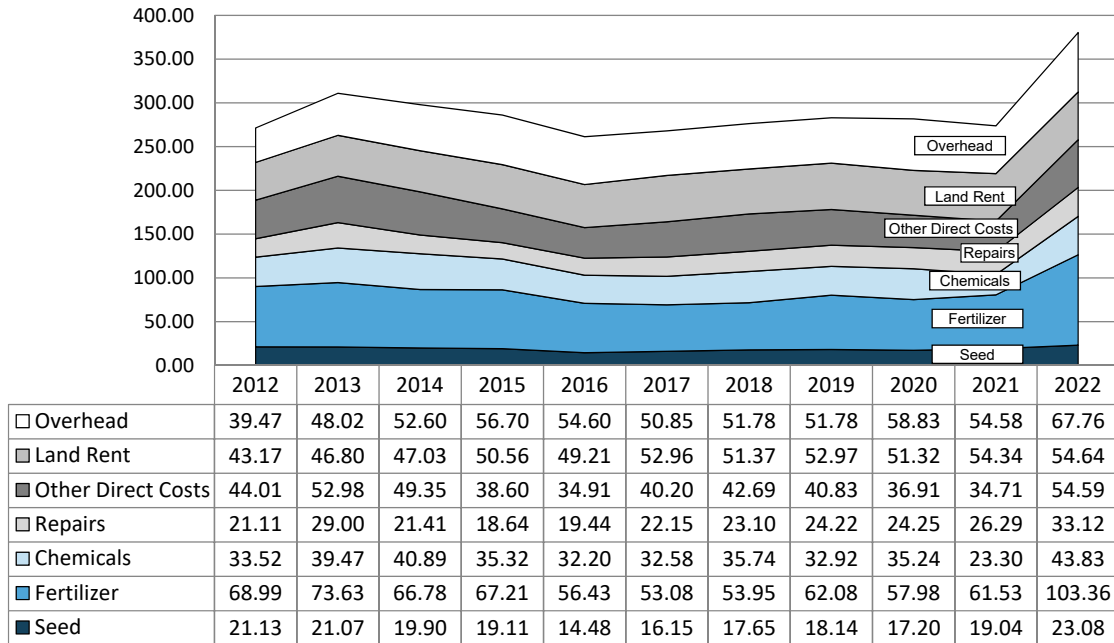
## Figure 8. Crop Acreage Per Farm

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



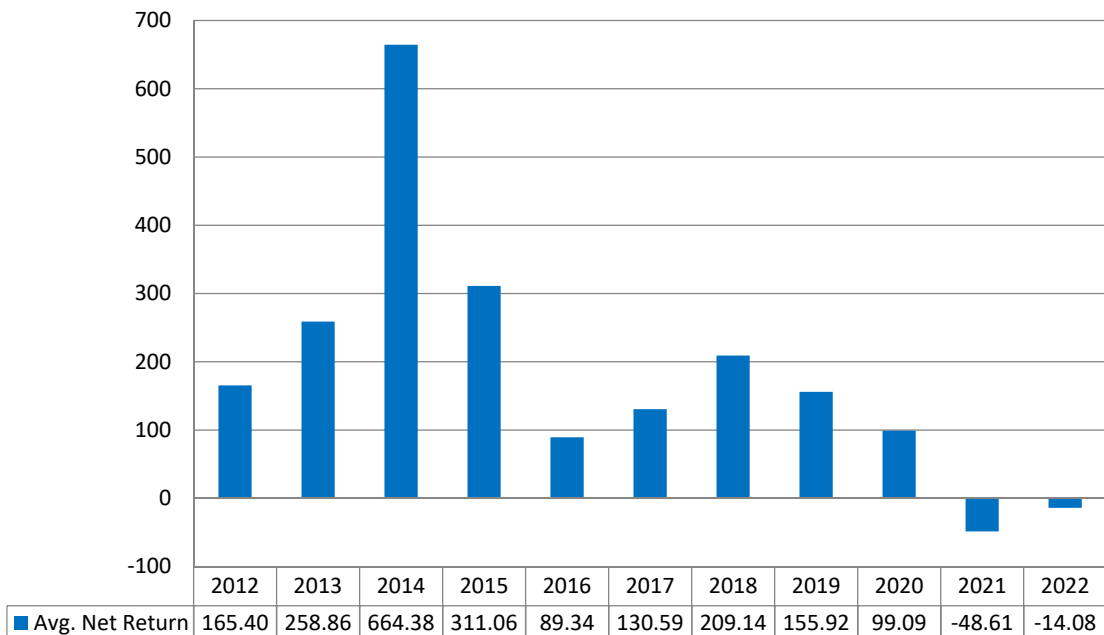
## Figure 9. Spring Wheat Costs Per Acre

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## Figure 10. Average Net Return Per Beef Cow

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