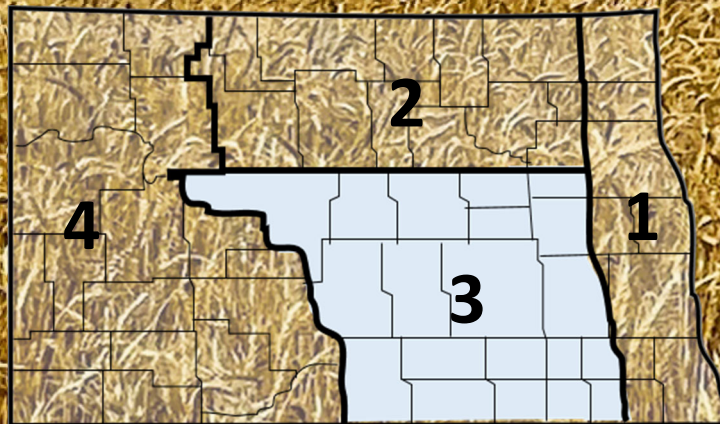


2023 ANNUAL REPORT

South Central North Dakota

North Dakota Farm Management Education





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and Technical Education

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The N.D. Farm Management Education Association recognizes the listed organizations for their contribution toward the production and distribution of the N.D. Farm and Ranch Business Management Regional and State Averages for 2023.

THANK YOU TO OUR STAR for sponsoring the averages:

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This project is also funded partly by the USDA NIFA Farm Business Management and Benchmarking Grant.

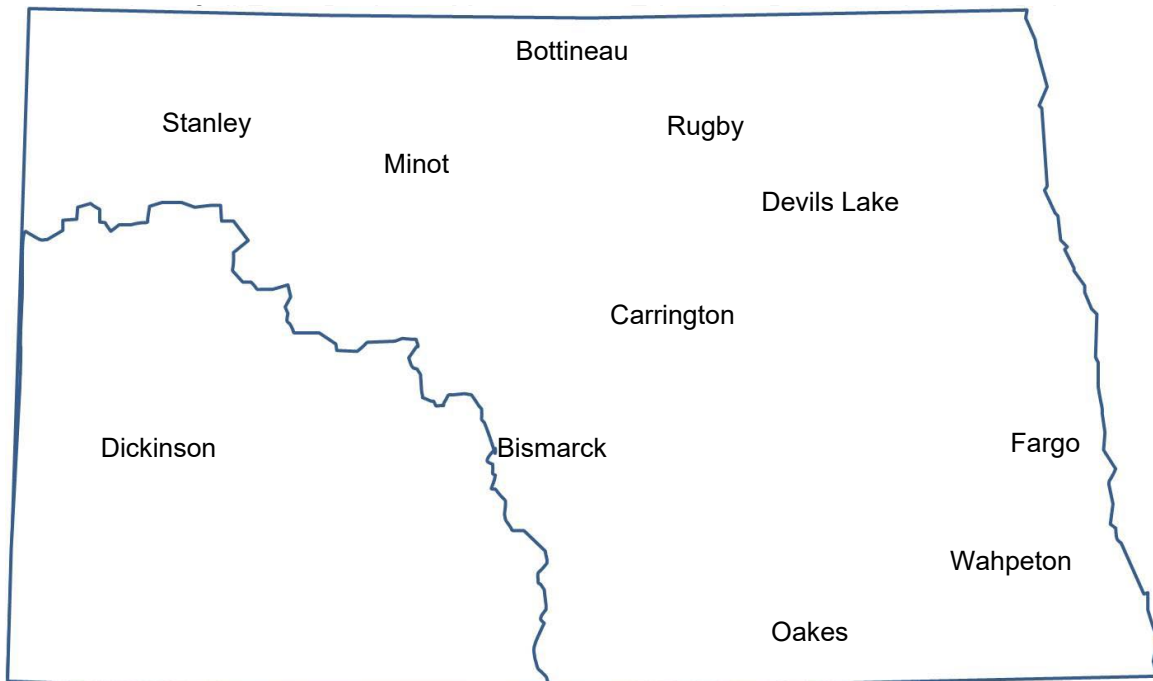
NORTH DAKOTA FARM BUSINESS MANAGEMENT EDUCATION

REGION 3 – SOUTH CENTRAL AVERAGES 2023 ANNUAL REPORT

The South Central (Region 3) farm business analyses were submitted by the following instructors represented by their cooperating schools.

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



2023 South Central Report North Dakota Farm Business Management Education

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INTRODUCTION

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

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

The 2023 summary reports are based upon data generated by the Finan individual farm analysis completed by farm/ranch families enrolled in the statewide Adult Farm and Ranch Business Management Education program in North Dakota. Instructors pooled the individual business analysis and submitted the combined school data to the FINPACK Center located at North Dakota State University. The FINPACK Center did provide schools with local averages in order to assist instructors with obtaining relevant local management trends.

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

This is the 35th 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.

EXPLANATORY NOTES FOR THE FARM OPERATORS' REPORTS

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

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

Farm Income Statement

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

The first section of the income statement is a table which lists cash farm income. There are several sources of cash farm income. Cash sales of crops are listed first followed by cash sales of livestock.

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

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

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

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

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

does not include any debt forgiveness or asset repossessions.

Inventory Changes

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

Depreciation

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

Profitability Measures

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

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

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

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

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

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

"Value of operator's labor and management" is an opportunity cost for unpaid operator's labor and management that is used in the calculation of several financial performance measures. A value of \$30,000 per full time operator plus 5% of value of farm production is used.

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

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

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

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

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

Liquidity & Repayment Capacity Measures

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

Balance Sheets

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

Statement of Cash Flows

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

Financial Standards Measures

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

Liquidity

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

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

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

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

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

Solvency

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

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

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

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

Profitability

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

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

investments. If assets are valued at cost (cost less depreciation), the rate of return represents the actual return on the average dollar invested in the business.

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

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

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

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

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

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

Repayment Capacity

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

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

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

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

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

Term Debt Coverage Ratio: The term debt coverage ratio measures the ability of the business to cover all term debt payments. A number less than 100 percent indicates that the business, plus non-farm income, is not generating sufficient cash to meet all of the debt payments, after family living expenses

and taxes have been paid. A number greater than 100 indicates the business is generating sufficient cash to pay all term debt obligations with some surplus margin remaining.

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

Efficiency

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

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

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

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

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

Crop Production and Marketing Summary

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

Household and Personal Expenses

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

Operator and Labor Information

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

Nonfarm Summary

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

Farm Income Statement
North Dakota Farm Business Management Education Program
Region 3 - South Central North Dakota, 2023
(Farms Sorted By Net Farm Income)

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	47	9	10	10
Cash Farm Income				
Barley	84,523	1,665	214,430	142,066
Beans, Garbonzo	2,511	-	11,803	-
Beans, Pinto	86,003	-	155,745	121,090
Canola	46,815	21,417	78,832	65,922
Corn	443,459	270,729	472,087	915,935
Hay, Small Grain	113	-	-	-
Millet	149	-	700	-
Oats	932	2,221	-	-
Peas, Field	1,510	-	4,344	-
Rye	779	-	273	-
Soybeans	491,658	463,515	405,863	866,460
Sunflowers	66,460	-	22,088	219,134
Wheat, Durum	81,197	-	125,177	215,008
Wheat, Spring	367,879	165,048	297,776	896,303
Wheat, Winter	2,457	-	-	-
Hay	2,378	-	10,377	160
Miscellaneous crop income	5,917	417	11,317	-
Beef Bulls	669	-	1,655	-
Beef Cow-Calf, Beef Calves	65,703	12,059	129,261	48,065
Beef Replacement Heifers	4,194	-	2,207	-
Beef Backgrounding	25,441	6,045	-	69,501
Beef Finishing	789	-	-	-
Beef Finish Yearlings	6,714	-	-	-
Cull breeding livestock	19,874	44,012	17,519	-
Misc. livestock income	88,395	414,361	-	501
CRP payments	541	-	-	1,355
Livestock govt payments	5,326	20,070	1,018	3,589
Conservation govt payment	6,907	8,155	5,469	3,714
Other government payments	11,009	8,505	8,048	24,307
Custom work income	6,027	-	1,734	17,749
Patronage dividends, cash	14,310	27,666	7,667	10,932
Crop insurance income	80,591	99,666	62,477	156,226
Property insurance income	1,030	3,002	-	2,122
Livestock insurance inc	614	73	1,736	-
Farm rental income	17,306	2,222	8,656	49,902
Other farm income	22,249	17,061	15,273	57,907
Gross Cash Farm Income	2,062,430	1,587,909	2,073,528	3,887,949

Farm Income Statement (continued)
North Dakota Farm Business Management Education Program
Region 3 - South Central North Dakota, 2023
(Farms Sorted By Net Farm Income)

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	47	9	10	10
Cash Farm Expense				
Seed and plants	208,836	131,255	223,963	435,968
Fertilizer	223,942	119,121	200,324	450,291
Crop chemicals	182,476	150,845	150,658	356,223
Crop insurance	88,494	79,631	84,042	166,358
Drying expense	3,236	3,761	5,809	5,868
Storage	573	239	-	1,175
Irrigation energy	1,166	-	1,450	150
Crop miscellaneous	3,868	3,077	12,825	1,138
Consultants	6,524	5,772	2,419	15,302
Feeder livestock purchase	9,826	67	26,759	77
Purchased feed	51,578	178,146	15,184	15,938
Breeding fees	1,806	7,402	-	1,408
Veterinary	6,017	18,401	2,669	1,751
Supplies	8,689	34,550	4,554	913
Livestock insurance	242	-	1,004	-
Livestock leases	340	-	-	-
Interest	81,093	129,168	74,020	101,177
Fuel & oil	79,317	64,143	62,565	148,901
Repairs	122,392	112,365	103,591	213,504
Custom hire	33,874	32,924	64,605	19,414
Hired labor	85,076	170,692	48,438	154,979
Land rent	226,299	140,309	231,360	460,487
Machinery leases	14,831	16,412	13,600	26,326
Building leases	346	89	511	1,034
Real estate taxes	8,178	7,142	6,603	14,885
Farm insurance	23,889	24,987	20,930	43,530
Utilities	17,670	24,936	14,585	23,345
Hauling and trucking	8,967	36,700	200	7,677
Marketing	2,825	4,757	1,504	3,829
Dues & professional fees	8,194	5,098	4,408	24,522
Organic certification	89	467	-	-
Miscellaneous	25,414	24,815	18,122	36,854
Total cash expense	1,536,069	1,527,273	1,396,698	2,733,023
Net cash farm income	526,362	60,637	676,831	1,154,926
Inventory Changes				
Prepays and supplies	-22,245	-31,914	-57,935	-65,286
Accounts receivable	-15,883	-17,212	50	-8,663
Hedging accounts	8,320	-326	7,684	29,065
Other current assets	-2,413	1,889	319	3,000
Crops and feed	-18,218	-85,602	-275,696	275,970
Market livestock	7,031	-2,405	41,030	-30,378
Breeding livestock	-12,898	4,037	-41,216	-13,564
Other assets	5,135	5,157	2,025	13,446
Accounts payable	841	-16,047	26,778	-4,002
Accrued interest	-12,521	-9,073	-20,131	-18,633
Total inventory change	-62,850	-151,497	-317,091	180,955
Net operating profit	463,511	-90,860	359,739	1,335,881
Depreciation				
Machinery and equipment	-135,517	-71,348	-126,883	-307,846
Titled vehicles	-16,561	-10,100	-21,550	-28,957
Buildings and improvements	-20,944	-15,070	-8,282	-54,492
Total depreciation	-173,022	-96,518	-156,715	-391,295
Net farm income from operations	290,489	-187,378	203,025	944,586
Gain or loss on capital sales	29,044	3,568	10,846	107,709
Net farm income	319,533	-183,810	213,871	1,052,295

Inventory Changes
North Dakota Farm Business Management Education Program
Region 3 - South Central North Dakota, 2023
(Farms Sorted By Net Farm Income)

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	47	9	10	10
Net cash farm income	526,362	60,637	676,831	1,154,926
Crops and Feed				
Ending inventory	1,699,110	704,955	1,141,421	4,689,902
Beginning inventory	1,717,328	790,557	1,417,117	4,413,933
Inventory change	-18,218	-85,602	-275,696	275,970
Market Livestock				
Ending inventory	67,534	11,344	89,275	35,625
Beginning inventory	60,503	13,749	48,245	66,003
Inventory change	7,031	-2,405	41,030	-30,378
Accts Receivable				
Ending inventory	68,694	59,309	60,006	27,850
Beginning inventory	84,577	76,521	59,956	36,513
Inventory change	-15,883	-17,212	50	-8,663
Prepaid Expenses and Supplies				
Ending inventory	270,526	62,528	223,832	656,213
Beginning inventory	292,771	94,443	281,767	721,499
Inventory change	-22,245	-31,914	-57,935	-65,286
Hedging Activities				
Ending inventory	15,015	1	10,707	54,101
Withdrawals	23,641	-	18,500	88,511
Beginning inventory	14,847	327	8,211	57,461
Deposits	15,489	-	13,312	56,086
Gain or loss	8,320	-326	7,684	29,065
Other Current Assets				
Ending inventory	22,452	62,556	1,681	36,856
Beginning inventory	24,865	60,667	1,362	33,856
Inventory change	-2,413	1,889	319	3,000
Breeding Livestock				
Ending inventory	160,339	287,976	89,166	144,960
Capital sales	18,495	11,636	28,860	12,277
Beginning inventory	168,291	293,147	103,911	148,089
Capital purchases	23,441	2,428	55,331	22,713
Depreciation, capital adjust	-12,898	4,037	-41,216	-13,564
Other Capital Assets				
Ending inventory	320,286	185,212	38,468	1,238,858
Capital sales	120,992	8,764	252	557,650
Beginning inventory	263,199	179,483	36,615	981,037
Capital purchases	172,944	9,336	81	802,024
Depreciation, capital adjust	5,135	5,157	2,025	13,446
Accounts Payable				
Beginning inventory	36,462	56,534	83,175	13,818
Ending inventory	35,620	72,581	56,397	17,820
Inventory change	841	-16,047	26,778	-4,002
Accrued Interest				
Beginning inventory	37,444	86,317	19,944	46,984
Ending inventory	49,965	95,390	40,075	65,617
Inventory change	-12,521	-9,073	-20,131	-18,633
Total inventory change	-62,850	-151,497	-317,091	180,955
Net operating profit	463,511	-90,860	359,739	1,335,881

Depreciation
North Dakota Farm Business Management Education Program
Region 3 - South Central North Dakota, 2023
(Farms Sorted By Net Farm Income)

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	47	9	10	10
Net operating profit	463,511	-90,860	359,739	1,335,881
Machinery and Equipment				
Ending inventory	1,514,675	755,213	1,387,813	3,549,661
Capital sales	126,657	11,705	66,331	446,140
Beginning inventory	1,324,651	761,270	1,192,366	3,039,055
Capital purchases	452,198	76,996	388,661	1,264,593
Depreciation, capital adjust.	-135,517	-71,348	-126,883	-307,846
Titled Vehicles				
Ending inventory	125,607	87,623	146,377	203,552
Capital sales	3,999	1,161	2,189	11,855
Beginning inventory	103,468	98,883	83,411	181,252
Capital purchases	42,699	-	86,705	63,112
Depreciation, capital adjust.	-16,561	-10,100	-21,550	-28,957
Buildings and Improvements				
Ending inventory	584,463	429,552	377,500	1,389,648
Capital sales	-	-	-	-
Beginning inventory	527,839	414,304	279,212	1,285,572
Capital purchases	77,568	30,318	106,570	158,568
Depreciation, capital adjust.	-20,944	-15,070	-8,282	-54,492
Total depreciation, capital adj.	-173,022	-96,518	-156,715	-391,295
Net farm income from operations	290,489	-187,378	203,025	944,586
Gain or loss on capital sales	29,044	3,568	10,846	107,709
Net farm income	319,533	-183,810	213,871	1,052,295

Profitability Measures
North Dakota Farm Business Management Education Program
Region 3 - South Central North Dakota, 2023
(Farms Sorted By Net Farm Income)

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	47	9	10	10
Profitability (assets valued at cost)				
Net farm income from operations	290,489	-187,378	203,025	944,586
Rate of return on assets	4.4 %	-3.5 %	4.0 %	6.1 %
Rate of return on equity	4.3 %	-21.8 %	3.1 %	6.8 %
Operating profit margin	13.4 %	-10.3 %	10.2 %	20.5 %
Asset turnover rate	32.8 %	33.8 %	38.8 %	29.6 %
Farm interest expense	93,614	138,241	94,151	119,810
Value of operator lbr and mgmt.	120,243	86,797	117,232	217,134
Return on farm assets	263,859	-135,934	179,944	847,262
Average farm assets	6,021,784	3,893,657	4,547,043	14,000,730
Return on farm equity	170,246	-274,175	85,793	727,452
Average farm equity	3,998,694	1,259,047	2,756,238	10,646,467
Value of farm production	1,975,514	1,315,233	1,765,464	4,140,810

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	47	9	10	10
Profitability (assets valued at market)				
Net farm income from operations	412,231	-3,811	341,720	1,017,378
Rate of return on assets	5.3 %	1.0 %	5.8 %	5.6 %
Rate of return on equity	5.5 %	-3.9 %	6.0 %	6.1 %
Operating profit margin	19.5 %	3.6 %	18.0 %	22.2 %
Asset turnover rate	27.1 %	26.5 %	31.9 %	25.3 %
Farm interest expense	93,614	138,241	94,151	119,810
Value of operator lbr and mgmt.	120,243	86,797	117,232	217,134
Return on farm assets	385,602	47,633	318,640	920,053
Average farm assets	7,294,272	4,966,346	5,526,350	16,392,752
Return on farm equity	291,988	-90,608	224,489	800,244
Average farm equity	5,271,182	2,331,736	3,735,545	13,038,489
Value of farm production	1,975,514	1,315,233	1,765,464	4,140,810

Liquidity & Repayment Capacity Measures
North Dakota Farm Business Management Education Program
Region 3 - South Central North Dakota, 2023
(Farms Sorted By Net Farm Income)

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	47	9	10	10
Liquidity				
Current ratio	2.27	1.11	1.81	2.66
Working capital	1,253,076	102,957	655,646	3,550,605
Change in working capital	-290,650	-369,833	-509,992	-427,125
Working capital to gross revenue	61.5 %	6.9 %	36.3 %	85.4 %
Working capital to oper expense	84.7 %	7.1 %	48.4 %	131.4 %
Current assets	2,241,569	1,019,741	1,460,589	5,690,356
Current liabilities	988,494	916,784	804,943	2,139,751
Gross revenues (accrual)	2,036,917	1,493,446	1,807,406	4,156,825
Total operating expenses	1,479,792	1,446,065	1,353,515	2,701,134
Repayment capacity				
Net farm income from operations	290,489	-187,378	203,025	944,586
Depreciation	173,022	96,518	156,715	391,295
Personal income	38,476	12,890	41,367	75,056
Family living/owner withdrawals	-117,177	-79,908	-115,936	-205,940
Cash discrepancy	26	132	36	-849
Income taxes	-37,248	-1,729	-17,066	-124,952
Interest expense	95,291	139,330	95,092	123,107
Debt repayment capacity	442,881	-20,146	363,233	1,202,303
Debt payments	206,002	258,305	202,835	298,891
Repayment margin	236,879	-278,452	160,398	903,412
Cash replacement allowance	-124,280	-30,086	-100,399	-336,821
Replacement margin	112,598	-308,537	59,999	566,591
Debt coverage ratio	2.15	-0.08	1.79	4.02
Term debt coverage ratio	2.38	-0.25	1.89	4.84
Replacement coverage ratio	1.34	-0.07	1.20	1.89

Balance Sheet at Cost Values
North Dakota Farm Business Management Education Program
Region 3 - South Central North Dakota, 2023
(Farms Sorted By Net Farm Income)

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	47	9	10	10
Assets				
Current Farm Assets				
Cash and checking balance	98,238	119,050	-66,332	189,809
Prepaid expenses & supplies	270,526	62,528	223,832	656,213
Growing crops	9,590	-	529	33,856
Accounts receivable	68,694	59,309	60,006	27,850
Hedging accounts	15,015	1	10,707	54,101
Crops held for sale or feed	1,699,110	704,955	1,141,421	4,689,902
Crops under government loan	-	-	-	-
Market livestock held for sale	67,534	11,344	89,275	35,625
Other current assets	12,862	62,556	1,152	3,000
Total current farm assets	2,241,569	1,019,741	1,460,589	5,690,356
Intermediate Farm Assets				
Breeding livestock	160,339	287,976	89,166	144,960
Machinery and equipment	1,514,675	755,213	1,387,813	3,549,661
Titled vehicles	125,607	87,623	146,377	203,552
Other intermediate assets	39,193	167,355	850	7,673
Total intermediate farm assets	1,839,814	1,298,167	1,624,206	3,905,847
Long Term Farm Assets				
Farm land	1,285,202	1,071,212	1,057,709	2,401,983
Buildings and improvements	584,463	429,552	377,500	1,389,648
Other long-term assets	281,093	17,857	37,618	1,231,184
Total long-term farm assets	2,150,757	1,518,621	1,472,827	5,022,815
Total Farm Assets	6,232,140	3,836,529	4,557,623	14,619,018
Total Nonfarm Assets	431,963	209,798	615,053	730,164
Total Assets	6,664,104	4,046,327	5,172,677	15,349,181
Liabilities				
Current Farm Liabilities				
Accrued interest	49,965	95,390	40,075	65,617
Accounts payable	35,620	72,581	56,397	17,820
Current notes	781,012	633,794	578,862	1,858,789
Government crop loans	-	-	-	-
Principal due on term debt	121,897	115,020	129,608	197,525
Total current farm liabilities	988,494	916,784	804,943	2,139,751
Total intermediate farm liabs	283,244	341,130	277,618	523,981
Total long term farm liabilities	901,461	1,457,067	767,346	1,039,390
Total farm liabilities	2,173,198	2,714,981	1,849,907	3,703,122
Total nonfarm liabilities	69,048	95,245	24,557	153,638
Total liabilities	2,242,246	2,810,226	1,874,465	3,856,760
Net worth (farm and nonfarm)	4,421,858	1,236,101	3,298,212	11,492,421
Net worth change	214,320	-253,179	143,361	661,487
Percent net worth change	5 %	-17 %	5 %	6 %
Ratio Analysis				
Current farm liabilities / assets	44 %	90 %	55 %	38 %
Intermediate farm liab. / assets	15 %	26 %	17 %	13 %
Long term farm liab. / assets	42 %	96 %	52 %	21 %
Total debt to asset ratio	34 %	69 %	36 %	25 %

Statement Of Cash Flows
North Dakota Farm Business Management Education Program
Region 3 - South Central North Dakota, 2023
(Farms Sorted By Net Farm Income)

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	47	9	10	10
Beginning cash (farm & nonfarm)	129,427	106,030	92,561	211,384
Cash Provided By Operating Activities				
Gross cash farm income	2,062,430	1,587,909	2,073,528	3,887,949
Total cash farm expense	-1,536,069	-1,527,273	-1,396,698	-2,733,023
Net cash from hedging transactions	8,152	-	5,189	32,425
Cash provided by operating	534,514	60,637	682,019	1,187,351
Cash Provided By Investing Activities				
Sale of breeding livestock	18,495	11,636	28,860	12,277
Sale of machinery & equipment	152,831	14,444	77,177	542,255
Sale of titled vehicles	6,334	1,989	2,189	23,450
Sale of farm land	17,128	-	-	72,500
Sale of farm buildings	-	-	-	-
Sale of other farm assets	121,528	8,764	252	557,650
Sale of nonfarm assets	3,055	3,000	1,600	5,208
Purchase of breeding livestock	-23,441	-2,428	-55,331	-22,713
Purchase of machinery & equip.	-452,198	-76,996	-388,661	-1,264,593
Purchase of titled vehicles	-42,699	-	-86,705	-63,112
Purchase of farm land	-183,916	-	-118,409	-254,243
Purchase of farm buildings	-77,568	-30,318	-106,570	-158,568
Purchase of other farm assets	-172,944	-9,336	-81	-802,024
Purchase of nonfarm assets	-79,366	-90,076	-109,424	-100,169
Cash provided by investing	-712,761	-169,321	-755,103	-1,452,080
Cash Provided By Financing Activities				
Money borrowed	1,810,939	1,527,764	1,469,566	3,697,921
Principal payments	-1,511,475	-1,325,827	-1,345,642	-3,025,859
Personal income	38,476	12,890	41,367	75,056
Family living/owner withdrawals	-117,177	-79,908	-115,936	-205,940
Income and social security tax	-39,770	-4,356	-17,066	-131,885
Capital contributions	-	-	-	-
Capital distributions	-39,536	-	-11,700	-170,117
Dividends paid	-	-	-	-
Cash gifts and inheritances	38,802	-	-	20,000
Gifts given	-1,204	-	-	-
Other cash flows	13	-	59	-
Cash provided by financing	179,069	130,562	20,649	259,175
Net change in cash balance	821	21,878	-52,434	-5,554
Ending cash (farm & nonfarm)	130,273	128,040	40,162	204,981
Discrepancy	-26	-132	-36	849

Financial Standards Measures
North Dakota Farm Business Management Education Program
Region 3 - South Central North Dakota, 2023
(Farms Sorted By Net Farm Income)

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	47	9	10	10
Liquidity				
Current ratio	2.27	1.11	1.81	2.66
Working capital to gross revenue	61.5 %	6.9 %	36.3 %	85.4 %
Working capital to oper expense	84.7 %	7.1 %	48.4 %	131.4 %
Solvency (market)				
Farm debt to asset ratio	29 %	54 %	33 %	22 %
Farm equity to asset ratio	71 %	46 %	67 %	78 %
Farm debt to equity ratio	0.40	1.19	0.49	0.28
Profitability (cost)				
Rate of return on farm assets	4.4 %	-3.5 %	4.0 %	6.1 %
Rate of return on farm equity	4.3 %	-21.8 %	3.1 %	6.8 %
Operating profit margin	13.4 %	-10.3 %	10.2 %	20.5 %
Asset turnover rate	32.8 %	33.8 %	38.8 %	29.6 %
Repayment Capacity				
Debt coverage ratio	2.15	-0.08	1.79	4.02
Term debt coverage ratio	2.38	-0.25	1.89	4.84
Replacement coverage ratio	1.34	-0.07	1.20	1.89
Efficiency				
Operating expense ratio	72.6 %	96.8 %	74.9 %	65.0 %
Depreciation expense ratio	8.5 %	6.5 %	8.7 %	9.4 %
Interest expense ratio	4.6 %	9.3 %	5.2 %	2.9 %
Net farm income ratio	14.3 %	-12.5 %	11.2 %	22.7 %

Crop Production and Marketing Summary
North Dakota Farm Business Management Education Program
Region 3 - South Central North Dakota, 2023
(Farms Sorted By Net Farm Income)

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	47	9	10	10
Acreage Summary				
Total acres owned	1,313	799	1,276	2,368
Total crop acres	3,493	2,483	3,229	6,976
Crop acres owned	700	587	621	1,569
Crop acres cash rented	2,743	1,812	2,558	5,407
Crop acres share rented	50	84	50	-
Total pasture acres	485	209	488	476
Percent crop acres owned	20 %	24 %	19 %	22 %
Mach invest/crop acre cost	436	343	419	500
Mach invest/crop acre market	552	399	511	643
Average Price Received (Cash Sales Only)				
Soybeans per bushel	12.85	12.82	11.97	13.37
Wheat, Spring per bushel	8.75	7.92	8.47	8.77
Corn per bushel	5.86	-	5.80	6.12
Barley per bushel	7.57	-	-	-
Wheat, Durum per bushel	10.43	-	-	-
Sunflowers per cwt	26.82	-	-	-
Beans, Pinto per cwt	36.88	-	-	-
Canola per cwt	26.24	-	-	-
Average Yield Per Acre				
Soybeans (bushel)	40.52	36.68	37.68	42.94
Corn (bushel)	157.96	158.95	146.44	156.37
Wheat, Spring (bushel)	63.77	56.16	61.82	68.42
Sunflowers (cwt)	23.02	-	-	22.69
Beans, Pinto (cwt)	22.11	-	-	24.74
Barley (bushel)	80.43	-	84.07	-
Hay, Grass (ton)	1.32	-	-	-
Wheat, Durum (bushel)	50.95	-	50.31	-
Canola (cwt)	23.62	-	-	-
Hay, Small Grain (ton)	2.10	-	-	-
Hay, Mixed Alfalfa/Grass (ton)	1.73	-	-	-
Hay, Alfalfa (ton)	2.89	-	-	-
Corn Silage (ton)	17.58	-	-	-

Household and Personal Expenses
North Dakota Farm Business Management Education Program
Region 3 - South Central North Dakota, 2023
(Farms Sorted By Net Farm Income)

	<u>Avg. Of All Farms</u>
Number of farms	8
Average family size	2.8
Family Living Expenses	
Food and meals expense	9,643
Medical care	9,096
Health insurance	11,692
Cash donations	2,616
Household supplies	17,914
Clothing	2,553
Personal care	1,587
Child / Dependent care	1,293
Alimony and child support	-
Gifts	4,095
Education	1,169
Recreation	13,019
Utilities (household share)	4,002
Personal vehicle operating exp	3,313
Household real estate taxes	349
Dwelling rent	298
Household repairs	1,130
Personal interest	162
Disability / Long term care ins	36
Life insurance payments	4,754
Personal property insurance	1,658
Miscellaneous	2,177
Total cash family living expense	92,558
Family living from the farm	2,000
Total family living	94,558
Other Nonfarm Expenditures	
Income taxes	56,321
Furnishing & appliance purchases	179
Nonfarm vehicle purchases	10,940
Nonfarm real estate purchases	82,645
Other nonfarm capital purchases	1,459
Nonfarm savings & investments	5,530
Total other nonfarm expenditures	157,074
Total cash family living investment & nonfarm capital purch	249,632

Operator and Labor Information
North Dakota Farm Business Management Education Program
Region 3 - South Central North Dakota, 2023
(Farms Sorted By Net Farm Income)

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	47	9	10	10
Operator Information				
Average number of operators	1.2	1.3	1.0	1.6
Average age of operators	48.2	50.3	44.9	46.2
Average number of years farming	24.6	25.8	20.1	25.4
Results Per Operator				
Working capital	1,015,423	77,218	655,646	2,219,128
Total assets (market)	6,497,120	3,912,045	6,239,666	11,116,394
Total liabilities	1,816,993	2,107,669	1,874,465	2,410,475
Net worth (market)	4,680,127	1,804,375	4,365,201	8,705,919
Net worth excl deferred liabs	4,680,127	1,804,375	4,365,201	8,705,919
Gross farm income	1,650,606	1,120,084	1,807,406	2,598,015
Total farm expense	1,415,209	1,260,618	1,604,381	2,007,649
Net farm income from operations	235,396	-140,534	203,025	590,366
Net nonfarm income	31,179	9,667	41,367	46,910
Family living & tax withdrawals	125,116	61,129	132,966	207,338
Total acres owned	1,064.2	598.9	1,275.7	1,479.9
Total crop acres	2,830.8	1,862.4	3,228.5	4,359.9
Crop acres owned	566.9	439.9	620.6	980.6
Crop acres cash rented	2,223.0	1,359.4	2,557.8	3,379.3
Crop acres share rented	40.9	63.2	50.1	-
Total pasture acres	392.8	156.9	487.8	297.5
Labor Analysis				
Number of farms	47	9	10	10
Total unpaid labor hours	2,513	1,544	2,530	3,630
Total hired labor hours	3,048	7,629	1,392	4,108
Total labor hours per farm	5,561	9,173	3,922	7,738
Unpaid hours per operator	2,036	1,158	2,530	2,269
Value of farm production / hour	355.25	143.38	450.14	535.16
Net farm income / unpaid hour	115.61	-121.32	80.25	260.22
Average hourly hired labor wage	28.52	22.66	31.89	37.54
Partnerships & LLCs				
Number of farms	7	2	-	4
Number of operators	2.3	-	-	-
Owner withdrawals per farm	-	-	-	-
Withdrawals per operator	-	-	-	-

Nonfarm Summary
North Dakota Farm Business Management Education Program
Region 3 - South Central North Dakota, 2023
(Farms Sorted By Net Farm Income)

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	47	9	10	10
Nonfarm Income				
Personal wages & salary	21,820	11,386	31,616	30,541
Net nonfarm business income	6,427	-	4,480	23,581
Personal rental income	300	-	-	1,372
Personal interest income	2,443	58	6	7,755
Personal cash dividends	651	-	2,170	803
Tax refunds	2,052	1,445	2,811	5,208
Nontaxable personal inc.	13	-	59	-
Other nonfarm income	4,783	-	284	5,797
Total nonfarm income	38,489	12,890	41,427	75,056
Gifts and inheritances	38,802	-	-	20,000
Nonfarm Assets (market)				
Checking & savings	32,035	8,990	106,494	15,172
Stocks & bonds	5,502	-	13,500	11,583
Other current assets	19,649	29	61,028	27,320
Furniture & appliances	15,183	32,300	4,190	26,299
Nonfarm vehicles	39,442	27,285	45,904	70,255
Cash value of life ins.	16,163	15,903	1,908	50,177
Retirement accounts	97,547	28,779	150,885	168,366
Other intermediate assets	14,303	1,013	2,471	13,615
Nonfarm real estate	187,276	100,759	213,631	310,977
Personal bus. investment	7,487	-	10,313	17,783
Other long term assets	17,636	-	23,065	27,247
Total nonfarm assets	452,224	215,058	633,388	738,795
Nonfarm Liabilities				
Accrued interest	150	364	30	163
Accounts payable	18,338	9,830	2,760	72,035
Current notes	98	-	460	-
Princ due on term debt	4,043	3,309	5,183	6,387
Total current liabilities	22,629	13,502	8,433	78,584
Intermediate liabilities	8,681	13,910	14,970	7,727
Long term liabilities	37,738	67,832	1,154	67,327
Total nonfarm liabilities	69,048	95,245	24,557	153,638
Nonfarm net worth	383,175	119,813	608,830	585,157
Nonfarm debt to asset ratio	15 %	44 %	4 %	21 %

Financial Summary
North Dakota Farm Business Management Education Program
Region 3 - South Central North Dakota, 2023
(Farms Sorted By Gross Farm Income)

	<u>Avg. Of All Farms</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	47	7	10	14	14
Income Statement					
Gross cash farm income	2,062,430	389,722	791,091	1,429,296	4,719,607
Total cash farm expense	1,536,069	322,292	662,765	1,053,245	3,452,467
Net cash farm income	526,362	67,430	128,326	376,051	1,267,140
Inventory change	-62,850	-30,483	46,579	-28,783	-210,734
Depreciation	-173,022	-34,368	-49,044	-110,554	-415,494
Net farm income from operations	290,489	2,579	125,860	236,713	640,912
Gain or loss on capital sales	29,044	5,561	5,519	17,924	72,857
Average net farm income	319,533	8,140	131,379	254,637	713,769
Median net farm income	217,939	-7,663	178,177	246,069	536,751
Profitability (cost)					
Rate of return on assets	4.4 %	-1.7 %	5.4 %	5.9 %	4.2 %
Rate of return on equity	4.3 %	-4.7 %	5.3 %	6.4 %	4.1 %
Operating profit margin	13.4 %	-6.2 %	14.4 %	16.7 %	13.0 %
Asset turnover rate	32.8 %	27.4 %	37.4 %	35.3 %	32.1 %
Profitability (market)					
Rate of return on assets	5.3 %	-0.1 %	6.9 %	7.5 %	4.8 %
Rate of return on equity	5.5 %	-1.3 %	7.6 %	8.5 %	5.0 %
Operating profit margin	19.5 %	-0.6 %	26.2 %	27.7 %	17.1 %
Asset turnover rate	27.1 %	16.9 %	26.4 %	26.9 %	28.0 %
Liquidity & Repayment (end of year)					
Current assets	2,241,569	508,163	620,082	1,222,462	5,523,535
Current liabilities	988,494	149,394	386,219	437,269	2,526,087
Current ratio	2.27	3.40	1.61	2.80	2.19
Working capital	1,253,076	358,769	233,863	785,192	2,997,448
Change in working capital	-290,650	7,757	-32,017	-103,803	-855,392
Working capital to gross revenue	61.5 %	93.2 %	28.2 %	56.9 %	64.5 %
Working capital to oper expense	84.7 %	109.1 %	38.5 %	82.9 %	88.1 %
Debt coverage ratio	2.15	1.20	1.74	1.81	2.42
Term debt coverage ratio	2.38	1.21	1.92	1.88	2.79
Replacement coverage ratio	1.34	0.74	1.40	1.35	1.36
Term debt to EBITDA	1.99	4.60	2.43	2.74	1.63
Solvency (end of year at cost)					
Number of farms	47	7	10	14	14
Total assets	6,664,104	1,579,360	2,508,473	4,368,504	15,223,571
Total liabilities	2,242,246	518,649	1,041,208	1,796,581	4,658,299
Net worth	4,421,858	1,060,711	1,467,266	2,571,922	10,565,272
Net worth change	214,320	-7,680	251,149	193,787	345,031
Farm debt to asset ratio	35 %	35 %	44 %	43 %	32 %
Total debt to asset ratio	34 %	33 %	42 %	41 %	31 %
Change in earned net worth %	5 %	-1 %	21 %	8 %	3 %
Solvency (end of year at market)					
Number of farms	47	7	10	14	14
Total assets	8,017,723	2,440,207	3,388,964	5,685,166	17,349,600
Total liabilities	2,242,246	518,649	1,041,208	1,796,581	4,658,299
Net worth	5,775,476	1,921,558	2,347,756	3,888,584	12,691,302
Total net worth change	339,011	14,655	351,669	342,748	528,361
Farm debt to asset ratio	29 %	22 %	32 %	32 %	28 %
Total debt to asset ratio	28 %	21 %	31 %	32 %	27 %
Change in total net worth %	6 %	1 %	18 %	10 %	4 %
Nonfarm Information					
Net nonfarm income	38,476	40,040	26,606	55,399	29,739
Farms reporting living expenses	8	1	3	1	2
Total family living expense	94,558	-	-	-	-
Total living, invest, cap. purch	249,632	-	-	-	-
Crop Acres					
Total crop acres	3,493	882	1,339	2,701	7,553
Total crop acres owned	700	133	293	630	1,424
Total crop acres cash rented	2,743	706	996	2,038	6,059
Total crop acres share rented	50	43	50	33	70
Machinery value per crop acre	552	488	363	505	596

Financial Summary
North Dakota Farm Business Management Education Program
Region 3 - South Central North Dakota, 2023
(Farms Sorted By Age of Operator)

	<u>Avg. Of All Farms</u>	<u>31 - 40</u>	<u>41 - 50</u>	<u>51 - 60</u>	<u>Over 60</u>
Number of farms	47	10	10	12	11
Income Statement					
Gross cash farm income	2,062,430	1,753,886	2,125,995	2,638,716	2,182,347
Total cash farm expense	1,536,069	1,148,643	1,628,196	2,027,109	1,642,030
Net cash farm income	526,362	605,243	497,799	611,607	540,317
Inventory change	-62,850	-240,116	-59,166	-153,460	106,909
Depreciation	-173,022	-128,690	-166,552	-216,591	-225,604
Net farm income from operations	290,489	236,437	272,081	241,556	421,622
Gain or loss on capital sales	29,044	29,731	40,604	33,493	23,617
Average net farm income	319,533	266,168	312,685	275,049	445,239
Median net farm income	217,939	252,707	211,219	211,899	186,214
Profitability (cost)					
Rate of return on assets	4.4 %	5.0 %	5.0 %	3.5 %	3.8 %
Rate of return on equity	4.3 %	5.3 %	5.3 %	2.6 %	3.7 %
Operating profit margin	13.4 %	13.5 %	13.1 %	9.9 %	15.5 %
Asset turnover rate	32.8 %	36.6 %	38.1 %	35.6 %	24.7 %
Profitability (market)					
Rate of return on assets	5.3 %	7.1 %	7.2 %	3.9 %	4.3 %
Rate of return on equity	5.5 %	8.6 %	9.2 %	3.3 %	4.3 %
Operating profit margin	19.5 %	21.8 %	21.9 %	13.7 %	21.7 %
Asset turnover rate	27.1 %	32.6 %	33.1 %	28.1 %	19.9 %
Liquidity & Repayment (end of year)					
Current assets	2,241,569	1,387,455	1,951,271	2,055,545	4,121,132
Current liabilities	988,494	627,427	1,186,544	1,158,183	1,288,943
Current ratio	2.27	2.21	1.64	1.77	3.20
Working capital	1,253,076	760,027	764,727	897,362	2,832,189
Change in working capital	-290,650	-289,723	-397,313	-373,095	-272,357
Working capital to gross revenue	61.5 %	49.4 %	37.5 %	34.9 %	118.9 %
Working capital to oper expense	84.7 %	69.2 %	51.7 %	45.3 %	170.6 %
Debt coverage ratio	2.15	2.09	1.63	1.35	4.69
Term debt coverage ratio	2.38	2.24	1.76	1.41	6.21
Replacement coverage ratio	1.34	1.34	1.26	0.97	1.68
Term debt to EBITDA	1.99	2.24	2.72	2.73	0.95
Solvency (end of year at cost)					
Number of farms	47	10	10	12	11
Total assets	6,664,104	4,689,676	6,079,732	7,481,002	10,074,024
Total liabilities	2,242,246	1,825,311	2,888,433	2,821,554	2,030,743
Net worth	4,421,858	2,864,365	3,191,299	4,659,449	8,043,281
Net worth change	214,320	226,353	193,732	251,069	182,149
Farm debt to asset ratio	35 %	41 %	49 %	40 %	20 %
Total debt to asset ratio	34 %	39 %	48 %	38 %	20 %
Change in earned net worth %	5 %	9 %	6 %	6 %	2 %
Solvency (end of year at market)					
Number of farms	47	10	10	12	11
Total assets	8,017,723	5,263,616	7,008,933	9,322,136	12,451,206
Total liabilities	2,242,246	1,825,311	2,888,433	2,821,554	2,030,743
Net worth	5,775,476	3,438,306	4,120,500	6,500,583	10,420,463
Total net worth change	339,011	340,302	387,752	348,039	328,158
Farm debt to asset ratio	29 %	36 %	43 %	32 %	16 %
Total debt to asset ratio	28 %	35 %	41 %	30 %	16 %
Change in total net worth %	6 %	11 %	10 %	6 %	3 %
Nonfarm Information					
Net nonfarm income	38,476	61,211	41,491	26,711	34,688
Farms reporting living expenses	8	-	3	2	2
Total family living expense	94,558	-	-	-	-
Total living, invest, cap. purch	249,632	-	-	-	-
Crop Acres					
Total crop acres	3,493	2,750	3,647	4,027	4,229
Total crop acres owned	700	566	553	776	1,100
Total crop acres cash rented	2,743	2,185	3,064	3,213	2,982
Total crop acres share rented	50	-	30	38	147
Machinery value per crop acre	552	564	468	570	636

Financial Summary
North Dakota Farm Business Management Education Program
Region 3 - South Central North Dakota, 2023
(Farms Sorted By Farm Type)

	<u>Avg. Of All Farms</u>	<u>Crop</u>
Number of farms	47	37
Income Statement		
Gross cash farm income	2,062,430	2,252,194
Total cash farm expense	1,536,069	1,620,131
Net cash farm income	526,362	632,063
Inventory change	-62,850	-73,047
Depreciation	-173,022	-197,020
Net farm income from operations	290,489	361,996
Gain or loss on capital sales	29,044	33,174
Average net farm income	319,533	395,170
Median net farm income	217,939	259,623
Profitability (cost)		
Rate of return on assets	4.4 %	4.9 %
Rate of return on equity	4.3 %	5.0 %
Operating profit margin	13.4 %	14.9 %
Asset turnover rate	32.8 %	32.7 %
Profitability (market)		
Rate of return on assets	5.3 %	5.8 %
Rate of return on equity	5.5 %	6.2 %
Operating profit margin	19.5 %	20.9 %
Asset turnover rate	27.1 %	27.6 %
Liquidity & Repayment (end of year)		
Current assets	2,241,569	2,574,993
Current liabilities	988,494	1,065,263
Current ratio	2.27	2.42
Working capital	1,253,076	1,509,731
Change in working capital	-290,650	-332,935
Working capital to gross revenue	61.5 %	68.4 %
Working capital to oper expense	84.7 %	97.3 %
Debt coverage ratio	2.15	2.45
Term debt coverage ratio	2.38	2.75
Replacement coverage ratio	1.34	1.44
Term debt to EBITDA	1.99	1.73
Solvency (end of year at cost)		
Number of farms	47	37
Total assets	6,664,104	7,419,797
Total liabilities	2,242,246	2,384,261
Net worth	4,421,858	5,035,535
Net worth change	214,320	233,917
Farm debt to asset ratio	35 %	33 %
Total debt to asset ratio	34 %	32 %
Change in earned net worth %	5 %	5 %
Solvency (end of year at market)		
Number of farms	47	37
Total assets	8,017,723	8,732,679
Total liabilities	2,242,246	2,384,261
Net worth	5,775,476	6,348,417
Total net worth change	339,011	365,662
Farm debt to asset ratio	29 %	28 %
Total debt to asset ratio	28 %	27 %
Change in total net worth %	6 %	6 %
Nonfarm Information		
Net nonfarm income	38,476	39,132
Farms reporting living expenses	8	5
Total family living expense	94,558	110,952
Total living, invest, cap. purch	249,632	353,874
Crop Acres		
Total crop acres	3,493	4,003
Total crop acres owned	700	790
Total crop acres cash rented	2,743	3,162
Total crop acres share rented	50	51
Machinery value per crop acre	552	558

EXPLANATORY NOTES FOR CROPS TABLES

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

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

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

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

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

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

Crop Enterprise Analysis
North Dakota Farm Business Management Education Program
Region 3 - South Central North Dakota, 2023
(Farms Sorted By Net Return)

Barley on Owned Land

	<u>Avg. Of All Farms</u>
Number of farms	6
Acres	224.45
Yield per acre (bu.)	59.48
Operators share of yield %	100.00
Value per bu.	7.08
Other product return per acre	21.67
Total product return per acre	442.65
Crop insurance per acre	95.54
Other crop income per acre	1.54
Gross return per acre	539.73
Direct Expenses	
Seed and plants	28.06
Fertilizer	70.14
Crop chemicals	34.17
Crop insurance	23.08
Drying expense	0.89
Fuel & oil	17.52
Repairs	37.73
Operating interest	12.33
Miscellaneous	0.90
Total direct expenses per acre	224.83
Return over direct exp per acre	314.90
Overhead Expenses	
Custom hire	9.38
Hired labor	8.43
Machinery leases	5.72
RE & pers. property taxes	7.73
Farm insurance	5.90
Utilities	4.57
Dues & professional fees	2.17
Interest	65.55
Mach & bldg depreciation	30.03
Miscellaneous	6.68
Total overhead expenses per acre	146.16
Total dir & ovhd expenses per acre	370.99
Net return per acre	168.74
Government payments	-
Net return with govt pmts	168.74
Labor & management charge	24.63
Net return over lbr & mgt	144.11
Cost of Production	
Total direct expense per bu.	3.78
Total dir & ovhd exp per bu.	6.24
Less govt & other income	4.24
With labor & management	4.65
Net value per unit	7.08
Machinery cost per acre	103.90
Est. labor hours per acre	0.82

Crop Enterprise Analysis
North Dakota Farm Business Management Education Program
Region 3 - South Central North Dakota, 2023
(Farms Sorted By Net Return)

Barley on Cash Rent

	<u>Avg. Of All Farms</u>
Number of farms	8
Acres	529.64
Yield per acre (bu.)	85.52
Operators share of yield %	100.00
Value per bu.	6.38
Other product return per acre	4.13
Total product return per acre	549.40
Crop insurance per acre	60.45
Other crop income per acre	1.41
Gross return per acre	611.26
Direct Expenses	
Seed and plants	43.11
Fertilizer	78.87
Crop chemicals	46.92
Crop insurance	21.20
Fuel & oil	18.19
Repairs	27.81
Custom hire	0.91
Land rent	87.03
Machinery leases	1.38
Operating interest	14.52
Miscellaneous	1.26
Total direct expenses per acre	341.22
Return over direct exp per acre	270.04
Overhead Expenses	
Custom hire	11.78
Hired labor	19.59
Machinery leases	7.49
Farm insurance	6.23
Utilities	5.38
Dues & professional fees	3.23
Interest	3.02
Mach & bldg depreciation	41.86
Miscellaneous	4.13
Total overhead expenses per acre	102.69
Total dir & ovhd expenses per acre	443.91
Net return per acre	167.34
Government payments	-
Net return with govt pmts	167.34
Labor & management charge	27.62
Net return over lbr & mgt	139.72
Cost of Production	
Total direct expense per bu.	3.99
Total dir & ovhd exp per bu.	5.19
Less govt & other income	4.42
With labor & management	4.74
Net value per unit	6.38
Machinery cost per acre	109.01
Est. labor hours per acre	0.92

Crop Enterprise Analysis
North Dakota Farm Business Management Education Program
Region 3 - South Central North Dakota, 2023
(Farms Sorted By Net Return)

Beans, Pinto on Owned Land

	<u>Avg. Of All Farms</u>
Number of farms	5
Acres	228.77
Yield per acre (cwt.)	25.78
Operators share of yield %	100.00
Value per cwt.	36.08
Total product return per acre	930.12
Crop insurance per acre	9.19
Other crop income per acre	1.77
Gross return per acre	941.09
Direct Expenses	
Seed and plants	80.01
Fertilizer	67.35
Crop chemicals	71.70
Crop insurance	33.93
Fuel & oil	24.58
Repairs	50.80
Custom hire	0.53
Machinery leases	1.43
Operating interest	13.39
Miscellaneous	3.44
Total direct expenses per acre	347.17
Return over direct exp per acre	593.92
Overhead Expenses	
Custom hire	8.03
Hired labor	15.43
Machinery leases	5.91
RE & pers. property taxes	9.23
Farm insurance	7.23
Utilities	3.73
Dues & professional fees	1.50
Interest	98.09
Mach & bldg depreciation	63.46
Miscellaneous	5.52
Total overhead expenses per acre	218.12
Total dir & ovhd expenses per acre	565.29
Net return per acre	375.80
Government payments	-
Net return with govt pmts	375.80
Labor & management charge	45.33
Net return over lbr & mgt	330.47
Cost of Production	
Total direct expense per cwt.	13.47
Total dir & ovhd exp per cwt.	21.93
Less govt & other income	21.50
With labor & management	23.26
Net value per unit	36.08
Machinery cost per acre	159.49
Est. labor hours per acre	1.14

Crop Enterprise Analysis
North Dakota Farm Business Management Education Program
Region 3 - South Central North Dakota, 2023
(Farms Sorted By Net Return)

Beans, Pinto on Cash Rent

	<u>Avg. Of All Farms</u>
Number of farms	9
Acres	530.03
Yield per acre (cwt.)	22.37
Operators share of yield %	100.00
Value per cwt.	36.45
Total product return per acre	815.50
Crop insurance per acre	7.02
Other crop income per acre	1.55
Gross return per acre	824.07
Direct Expenses	
Seed and plants	72.39
Fertilizer	78.86
Crop chemicals	91.38
Crop insurance	35.29
Fuel & oil	24.07
Repairs	35.26
Custom hire	0.31
Land rent	94.85
Machinery leases	1.53
Operating interest	14.61
Miscellaneous	1.76
Total direct expenses per acre	450.32
Return over direct exp per acre	373.75
Overhead Expenses	
Custom hire	6.97
Hired labor	28.91
Machinery leases	7.02
Farm insurance	6.08
Utilities	4.38
Dues & professional fees	3.63
Interest	3.22
Mach & bldg depreciation	42.47
Miscellaneous	4.10
Total overhead expenses per acre	106.79
Total dir & ovhd expenses per acre	557.11
Net return per acre	266.96
Government payments	-
Net return with govt pmts	266.96
Labor & management charge	40.13
Net return over lbr & mgt	226.83
Cost of Production	
Total direct expense per cwt.	20.13
Total dir & ovhd exp per cwt.	24.90
Less govt & other income	24.52
With labor & management	26.31
Net value per unit	36.45
Machinery cost per acre	115.52
Est. labor hours per acre	1.25

Crop Enterprise Analysis
North Dakota Farm Business Management Education Program
Region 3 - South Central North Dakota, 2023
(Farms Sorted By Net Return)

Canola on Cash Rent

	<u>Avg. Of All Farms</u>
Number of farms	5
Acres	331.58
Yield per acre (cwt.)	19.82
Operators share of yield %	100.00
Value per cwt.	22.85
Total product return per acre	453.01
Crop insurance per acre	12.87
Other crop income per acre	8.40
Gross return per acre	474.28
Direct Expenses	
Seed and plants	74.73
Fertilizer	81.56
Crop chemicals	49.08
Crop insurance	32.83
Fuel & oil	15.06
Repairs	38.63
Custom hire	1.99
Land rent	80.68
Machinery leases	1.68
Operating interest	17.82
Miscellaneous	4.91
Total direct expenses per acre	398.97
Return over direct exp per acre	75.31
Overhead Expenses	
Custom hire	26.50
Hired labor	9.04
Machinery leases	5.11
Farm insurance	5.42
Utilities	3.02
Dues & professional fees	0.72
Interest	4.20
Mach & bldg depreciation	36.62
Miscellaneous	4.37
Total overhead expenses per acre	95.00
Total dir & ovhd expenses per acre	493.97
Net return per acre	-19.69
Government payments	-
Net return with govt pmts	-19.69
Labor & management charge	28.92
Net return over lbr & mgt	-48.60
Cost of Production	
Total direct expense per cwt.	20.12
Total dir & ovhd exp per cwt.	24.92
Less govt & other income	23.84
With labor & management	25.30
Net value per unit	22.85
Machinery cost per acre	126.58
Est. labor hours per acre	0.85

Crop Enterprise Analysis
North Dakota Farm Business Management Education Program
Region 3 - South Central North Dakota, 2023
(Farms Sorted By Net Return)

Corn on Owned Land

	Avg. Of All Farms
Number of farms	16
Acres	345.22
Yield per acre (bu.)	155.85
Operators share of yield %	100.00
Value per bu.	4.49
Other product return per acre	4.96
Total product return per acre	704.59
Hedging gains/losses per acre	2.16
Crop insurance per acre	1.00
Other crop income per acre	0.79
Gross return per acre	708.55
Direct Expenses	
Seed and plants	87.55
Fertilizer	165.86
Crop chemicals	43.82
Crop insurance	33.45
Drying expense	7.56
Fuel & oil	27.55
Repairs	58.63
Custom hire	4.83
Machinery leases	0.81
Operating interest	17.86
Miscellaneous	2.27
Total direct expenses per acre	450.20
Return over direct exp per acre	258.35
Overhead Expenses	
Custom hire	3.77
Hired labor	19.85
Machinery leases	5.68
Building leases	0.20
RE & pers. property taxes	9.20
Farm insurance	6.38
Utilities	4.53
Dues & professional fees	1.41
Interest	72.06
Mach & bldg depreciation	69.27
Miscellaneous	7.11
Total overhead expenses per acre	199.47
Total dir & ovhd expenses per acre	649.67
Net return per acre	58.88
Government payments	-
Net return with govt pmts	58.88
Labor & management charge	49.86
Net return over lbr & mgt	9.02
Cost of Production	
Total direct expense per bu.	2.89
Total dir & ovhd exp per bu.	4.17
Less govt & other income	4.11
With labor & management	4.43
Net value per unit	4.50
Machinery cost per acre	171.53
Est. labor hours per acre	1.55

Crop Enterprise Analysis
North Dakota Farm Business Management Education Program
Region 3 - South Central North Dakota, 2023
(Farms Sorted By Net Return)

Corn on Cash Rent

	<u>Avg. Of All Farms</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	24	5	5
Acres	808.21	859.40	740.47
Yield per acre (bu.)	155.55	160.90	145.68
Operators share of yield %	100.00	100.00	100.00
Value per bu.	4.56	4.66	4.81
Other product return per acre	3.72	-	19.48
Total product return per acre	712.85	749.91	719.56
Hedging gains/losses per acre	1.58	-	8.30
Crop insurance per acre	2.45	-	3.20
Other crop income per acre	1.20	-	1.70
Gross return per acre	718.08	749.91	732.76
Direct Expenses			
Seed and plants	88.22	102.67	81.08
Fertilizer	171.21	187.06	119.87
Crop chemicals	36.44	38.07	36.11
Crop insurance	36.26	38.39	28.52
Drying expense	3.47	2.57	-
Fuel & oil	28.45	25.40	25.10
Repairs	41.18	54.17	36.39
Custom hire	2.59	1.28	0.55
Land rent	91.73	81.68	78.27
Machinery leases	1.21	2.69	0.52
Operating interest	17.90	24.26	13.91
Miscellaneous	1.84	3.31	0.74
Total direct expenses per acre	520.49	561.55	421.06
Return over direct exp per acre	197.59	188.36	311.70
Overhead Expenses			
Custom hire	5.78	-	6.46
Hired labor	30.22	21.40	34.33
Machinery leases	7.39	4.60	10.82
Building leases	0.24	0.81	0.12
Farm insurance	5.44	5.97	6.08
Utilities	4.56	5.04	2.76
Dues & professional fees	3.21	0.64	0.70
Interest	3.09	4.62	4.22
Mach & bldg depreciation	74.05	76.22	53.30
Miscellaneous	5.20	7.20	3.00
Total overhead expenses per acre	139.18	126.50	121.78
Total dir & ovhd expenses per acre	659.67	688.05	542.85
Net return per acre	58.41	61.86	189.92
Government payments	-	-	-
Net return with govt pmts	58.41	61.86	189.92
Labor & management charge	48.41	55.36	42.38
Net return over lbr & mgt	10.00	6.50	147.54
Cost of Production			
Total direct expense per bu.	3.35	3.49	2.89
Total dir & ovhd exp per bu.	4.24	4.28	3.73
Less govt & other income	4.18	4.28	3.50
With labor & management	4.49	4.62	3.79
Net value per unit	4.57	4.66	4.86
Machinery cost per acre	156.10	159.26	132.95
Est. labor hours per acre	1.58	1.73	1.47

Crop Enterprise Analysis
North Dakota Farm Business Management Education Program
Region 3 - South Central North Dakota, 2023
(Farms Sorted By Net Return)

Hay, Grass on Cash Rent

	Avg. Of All Farms
Number of farms	7
Acres	375.43
Yield per acre (ton)	1.17
Operators share of yield %	100.00
Value per ton	70.56
Total product return per acre	82.26
Gross return per acre	82.26
Direct Expenses	
Seed and plants	0.86
Fertilizer	0.46
Crop chemicals	0.70
Fuel & oil	10.24
Repairs	27.06
Custom hire	0.35
Land rent	25.35
Operating interest	7.89
Total direct expenses per acre	72.91
Return over direct exp per acre	9.34
Overhead Expenses	
Custom hire	0.52
Hired labor	8.78
Machinery leases	0.90
Farm insurance	0.83
Utilities	1.44
Dues & professional fees	1.48
Interest	1.01
Mach & bldg depreciation	15.49
Miscellaneous	22.51
Total overhead expenses per acre	52.95
Total dir & ovhd expenses per acre	125.86
Net return per acre	-43.61
Government payments	-
Net return with govt pmts	-43.61
Labor & management charge	17.08
Net return over lbr & mgt	-60.69
Cost of Production	
Total direct expense per ton	62.54
Total dir & ovhd exp per ton	107.97
Less govt & other income	107.97
With labor & management	122.62
Net value per unit	70.56
Machinery cost per acre	53.68
Est. labor hours per acre	0.81

Crop Enterprise Analysis
North Dakota Farm Business Management Education Program
Region 3 - South Central North Dakota, 2023
(Farms Sorted By Net Return)

Hay, Small Grain on Cash Rent

	<u>Avg. Of All Farms</u>
Number of farms	5
Acres	80.58
Yield per acre (ton)	1.92
Operators share of yield %	100.00
Value per ton	88.13
Total product return per acre	169.38
Other crop income per acre	8.07
Gross return per acre	177.45
Direct Expenses	
Seed and plants	21.28
Fertilizer	44.08
Crop chemicals	21.03
Crop insurance	4.61
Fuel & oil	11.81
Repairs	21.57
Custom hire	22.43
Land rent	42.81
Operating interest	1.02
Total direct expenses per acre	190.64
Return over direct exp per acre	-13.18
Overhead Expenses	
Custom hire	0.87
Hired labor	2.45
Farm insurance	4.53
Utilities	3.77
Dues & professional fees	1.39
Interest	2.31
Mach & bldg depreciation	27.78
Miscellaneous	4.42
Total overhead expenses per acre	47.53
Total dir & ovhd expenses per acre	238.16
Net return per acre	-60.71
Government payments	-
Net return with govt pmts	-60.71
Labor & management charge	27.84
Net return over lbr & mgt	-88.54
Cost of Production	
Total direct expense per ton	99.19
Total dir & ovhd exp per ton	123.92
Less govt & other income	119.72
With labor & management	134.20
Net value per unit	88.13
Machinery cost per acre	84.77
Est. labor hours per acre	1.40

Crop Enterprise Analysis
North Dakota Farm Business Management Education Program
Region 3 - South Central North Dakota, 2023
(Farms Sorted By Net Return)

Pasture on Owned Land

	Avg. Of All Farms
Number of farms	6
Acres	818.73
Yield per acre (aum)	1.05
Operators share of yield %	100.00
Value per aum	23.55
Total product return per acre	24.67
Crop insurance per acre	1.53
Gross return per acre	26.20
Direct Expenses	
Crop insurance	1.90
Fuel & oil	0.47
Repairs	1.07
Miscellaneous	0.18
Total direct expenses per acre	3.62
Return over direct exp per acre	22.57
Overhead Expenses	
Hired labor	0.25
RE & pers. property taxes	4.78
Interest	6.86
Mach & bldg depreciation	1.23
Miscellaneous	1.14
Total overhead expenses per acre	14.26
Total dir & ovhd expenses per acre	17.89
Net return per acre	8.31
Government payments	-
Net return with govt pmts	8.31
Labor & management charge	0.80
Net return over lbr & mgt	7.52
Cost of Production	
Total direct expense per aum	3.46
Total dir & ovhd exp per aum	17.07
Less govt & other income	15.61
With labor & management	16.37
Net value per unit	23.55
Machinery cost per acre	2.88
Est. labor hours per acre	0.04

Crop Enterprise Analysis
North Dakota Farm Business Management Education Program
Region 3 - South Central North Dakota, 2023
(Farms Sorted By Net Return)

Pasture on Cash Rent

	Avg. Of All Farms
Number of farms	10
Acres	1,272.84
Yield per acre (aum)	1.06
Operators share of yield %	100.00
Value per aum	24.50
Total product return per acre	25.95
Crop insurance per acre	7.37
Gross return per acre	33.32
Direct Expenses	
Fuel & oil	0.62
Repairs	0.96
Land rent	23.96
Operating interest	0.30
Miscellaneous	0.45
Total direct expenses per acre	26.29
Return over direct exp per acre	7.03
Overhead Expenses	
Hired labor	0.49
Mach & bldg depreciation	1.35
Miscellaneous	1.04
Total overhead expenses per acre	2.89
Total dir & ovhd expenses per acre	29.18
Net return per acre	4.14
Government payments	-
Net return with govt pmts	4.14
Labor & management charge	0.98
Net return over lbr & mgt	3.16
Cost of Production	
Total direct expense per aum	24.82
Total dir & ovhd exp per aum	27.55
Less govt & other income	20.59
With labor & management	21.51
Net value per unit	24.50
Machinery cost per acre	3.01
Est. labor hours per acre	0.04

Crop Enterprise Analysis
North Dakota Farm Business Management Education Program
Region 3 - South Central North Dakota, 2023
(Farms Sorted By Net Return)

Prevented planting on Owned Land

	Avg. Of All Farms
Number of farms	7
Acres	51.11
Yield per acre	-
Operators share of yield %	-
Value per 0	-
Total product return per acre	-
Crop insurance per acre	316.31
Other crop income per acre	3.50
Gross return per acre	319.81
Direct Expenses	
Seed and plants	2.36
Crop chemicals	22.85
Crop insurance	27.39
Fuel & oil	5.70
Repairs	14.64
Operating interest	3.01
Total direct expenses per acre	75.96
Return over direct exp per acre	243.86
Overhead Expenses	
Hired labor	2.31
Machinery leases	0.59
RE & pers. property taxes	9.76
Farm insurance	6.19
Utilities	6.07
Dues & professional fees	2.18
Interest	83.87
Mach & bldg depreciation	11.18
Miscellaneous	6.09
Total overhead expenses per acre	128.23
Total dir & ovhd expenses per acre	204.19
Net return per acre	115.62
Government payments	-
Net return with govt pmts	115.62
Labor & management charge	11.48
Net return over lbr & mgt	104.14
Net value per unit	-
Machinery cost per acre	39.39
Est. labor hours per acre	0.33

Crop Enterprise Analysis
North Dakota Farm Business Management Education Program
Region 3 - South Central North Dakota, 2023
(Farms Sorted By Net Return)

Prevented planting on Cash Rent

	<u>Avg. Of All Farms</u>
Number of farms	12
Acres	172.67
Yield per acre	-
Operators share of yield %	-
Value per 0	-
Total product return per acre	-
Crop insurance per acre	455.65
Other crop income per acre	4.97
Gross return per acre	460.61
Direct Expenses	
Seed and plants	7.44
Crop chemicals	1.02
Crop insurance	91.62
Fuel & oil	5.19
Repairs	7.70
Land rent	72.11
Organic certification	0.57
Operating interest	1.34
Total direct expenses per acre	186.98
Return over direct exp per acre	273.63
Overhead Expenses	
Custom hire	0.29
Hired labor	4.06
Machinery leases	0.67
Farm insurance	3.63
Utilities	2.98
Dues & professional fees	3.06
Interest	2.07
Mach & bldg depreciation	15.31
Miscellaneous	3.20
Total overhead expenses per acre	35.29
Total dir & ovhd expenses per acre	222.27
Net return per acre	238.34
Government payments	-
Net return with govt pmts	238.34
Labor & management charge	10.49
Net return over lbr & mgt	227.85
Net value per unit	-
Machinery cost per acre	29.98
Est. labor hours per acre	0.37

Crop Enterprise Analysis
North Dakota Farm Business Management Education Program
Region 3 - South Central North Dakota, 2023
(Farms Sorted By Net Return)

Soybeans on Owned Land

	<u>Ava. Of All Farms</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	22	5	5
Acres	464.56	622.68	398.39
Yield per acre (bu.)	41.24	41.17	46.69
Operators share of yield %	100.00	100.00	100.00
Value per bu.	12.38	12.23	12.75
Total product return per acre	510.69	503.55	595.33
Hedging gains/losses per acre	0.69	-	-
Crop insurance per acre	12.08	-	19.93
Other crop income per acre	1.07	1.30	0.62
Gross return per acre	524.53	504.85	615.88
Direct Expenses			
Seed and plants	60.02	54.64	60.58
Fertilizer	15.85	14.29	10.77
Crop chemicals	44.66	47.59	31.94
Crop insurance	22.75	23.69	14.95
Fuel & oil	16.04	16.81	18.63
Repairs	31.80	35.75	40.11
Custom hire	2.87	-	-
Machinery leases	0.64	-	0.99
Operating interest	8.49	11.70	1.98
Miscellaneous	1.74	2.56	1.77
Total direct expenses per acre	204.87	207.05	181.72
Return over direct exp per acre	319.66	297.81	434.16
Overhead Expenses			
Custom hire	2.15	2.60	-
Hired labor	9.33	3.58	17.84
Machinery leases	2.37	2.49	2.71
Building leases	0.19	0.54	0.14
RE & pers. property taxes	8.79	8.97	7.56
Farm insurance	5.29	4.69	4.19
Utilities	4.38	3.98	3.38
Dues & professional fees	1.49	0.94	1.82
Interest	51.91	44.78	15.88
Mach & bldg depreciation	44.53	56.53	47.53
Miscellaneous	7.34	7.37	6.23
Total overhead expenses per acre	137.77	136.48	107.27
Total dir & ovhd expenses per acre	342.64	343.52	288.99
Net return per acre	181.89	161.33	326.89
Government payments	-	-	-
Net return with govt pmts	181.89	161.33	326.89
Labor & management charge	30.57	34.77	35.85
Net return over lbr & mgt	151.32	126.55	291.04
Cost of Production			
Total direct expense per bu.	4.97	5.03	3.89
Total dir & ovhd exp per bu.	8.31	8.35	6.19
Less govt & other income	7.97	8.31	5.75
With labor & management	8.71	9.16	6.52
Net value per unit	12.40	12.23	12.75
Machinery cost per acre	100.92	113.96	109.20
Est. labor hours per acre	1.00	0.93	1.22

Crop Enterprise Analysis
North Dakota Farm Business Management Education Program
Region 3 - South Central North Dakota, 2023
(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	32	6	7	7
Acres	1,034.42	448.93	1,304.37	867.47
Yield per acre (bu.)	40.74	25.68	37.47	49.33
Operators share of yield %	100.00	100.00	100.00	100.00
Value per bu.	12.34	12.07	12.23	12.50
Total product return per acre	502.69	310.01	458.34	616.51
Hedging gains/losses per acre	1.25	-	-	6.83
Crop insurance per acre	6.00	22.50	7.81	3.06
Other crop income per acre	1.59	3.89	2.29	0.99
Gross return per acre	511.53	336.41	468.44	627.38
Direct Expenses				
Seed and plants	65.68	63.95	65.91	63.49
Fertilizer	14.82	18.71	15.35	28.05
Crop chemicals	42.28	38.62	36.05	43.26
Crop insurance	19.87	14.33	18.47	15.55
Fuel & oil	17.21	12.71	15.80	17.86
Repairs	25.86	22.69	21.82	27.90
Custom hire	1.52	10.32	2.00	-
Land rent	80.29	53.49	72.72	78.70
Machinery leases	0.58	-	-	2.30
Operating interest	8.49	9.54	7.93	8.20
Miscellaneous	1.02	3.60	0.35	2.29
Total direct expenses per acre	277.62	247.97	256.38	287.60
Return over direct exp per acre	233.91	88.44	212.06	339.78
Overhead Expenses				
Custom hire	3.44	12.09	5.50	0.07
Hired labor	13.74	1.82	9.03	22.88
Machinery leases	3.88	4.62	3.51	7.17
Farm insurance	5.10	4.11	5.56	6.48
Utilities	3.74	3.97	3.00	3.58
Dues & professional fees	2.59	0.72	1.42	0.66
Interest	3.10	5.55	3.82	3.13
Mach & bldg depreciation	42.35	47.38	29.36	42.55
Miscellaneous	6.06	7.75	5.50	3.89
Total overhead expenses per acre	84.01	88.00	66.69	90.40
Total dir & ovhd expenses per acre	361.63	335.97	323.07	378.01
Net return per acre	149.90	0.44	145.36	249.38
Government payments	-	-	-	-
Net return with govt pmts	149.90	0.44	145.36	249.38
Labor & management charge	26.96	35.83	19.92	30.86
Net return over lbr & mgt	122.94	-35.40	125.45	218.52
Cost of Production				
Total direct expense per bu.	6.81	9.66	6.84	5.83
Total dir & ovhd exp per bu.	8.88	13.08	8.62	7.66
Less govt & other income	8.66	12.06	8.35	7.44
With labor & management	9.32	13.45	8.88	8.07
Net value per unit	12.37	12.07	12.23	12.63
Machinery cost per acre	93.17	110.64	77.07	97.47
Est. labor hours per acre	0.95	1.13	0.84	1.02

Crop Enterprise Analysis
North Dakota Farm Business Management Education Program
Region 3 - South Central North Dakota, 2023
(Farms Sorted By Net Return)

Sunflowers on Owned Land

	<u>Avg. Of All Farms</u>
Number of farms	5
Acres	544.72
Yield per acre (cwt.)	25.19
Operators share of yield %	100.00
Value per cwt.	18.83
Total product return per acre	474.31
Gross return per acre	474.31
Direct Expenses	
Seed and plants	33.83
Fertilizer	72.26
Crop chemicals	48.55
Crop insurance	22.83
Drying expense	2.55
Fuel & oil	21.80
Repairs	21.19
Custom hire	13.06
Operating interest	0.33
Total direct expenses per acre	236.40
Return over direct exp per acre	237.91
Overhead Expenses	
Custom hire	2.48
Hired labor	13.59
Machinery leases	0.42
RE & pers. property taxes	6.90
Farm insurance	5.53
Utilities	2.42
Dues & professional fees	2.02
Interest	5.01
Mach & bldg depreciation	30.05
Miscellaneous	10.06
Total overhead expenses per acre	78.48
Total dir & ovhd expenses per acre	314.88
Net return per acre	159.44
Government payments	-
Net return with govt pmts	159.44
Labor & management charge	15.28
Net return over lbr & mgt	144.15
Cost of Production	
Total direct expense per cwt.	9.39
Total dir & ovhd exp per cwt.	12.50
Less govt & other income	12.50
With labor & management	13.11
Net value per unit	18.83
Machinery cost per acre	80.18
Est. labor hours per acre	1.31

Crop Enterprise Analysis
North Dakota Farm Business Management Education Program
Region 3 - South Central North Dakota, 2023
(Farms Sorted By Net Return)

Sunflowers on Cash Rent

	Avg. Of All Farms
Number of farms	8
Acres	460.36
Yield per acre (cwt.)	21.51
Operators share of yield %	100.00
Value per cwt.	19.46
Total product return per acre	418.45
Crop insurance per acre	0.69
Gross return per acre	419.14
Direct Expenses	
Seed and plants	35.59
Fertilizer	80.69
Crop chemicals	44.39
Crop insurance	18.40
Fuel & oil	25.78
Repairs	34.82
Custom hire	13.48
Land rent	86.66
Operating interest	5.02
Miscellaneous	0.13
Total direct expenses per acre	344.95
Return over direct exp per acre	74.19
Overhead Expenses	
Custom hire	3.84
Hired labor	16.30
Machinery leases	4.17
Farm insurance	5.04
Utilities	3.89
Dues & professional fees	3.47
Interest	0.53
Mach & bldg depreciation	56.94
Miscellaneous	7.01
Total overhead expenses per acre	101.19
Total dir & ovhd expenses per acre	446.14
Net return per acre	-27.00
Government payments	-
Net return with govt pmts	-27.00
Labor & management charge	34.73
Net return over lbr & mgt	-61.73
Cost of Production	
Total direct expense per cwt.	16.04
Total dir & ovhd exp per cwt.	20.74
Less govt & other income	20.71
With labor & management	22.33
Net value per unit	19.46
Machinery cost per acre	134.55
Est. labor hours per acre	1.23

Crop Enterprise Analysis
North Dakota Farm Business Management Education Program
Region 3 - South Central North Dakota, 2023
(Farms Sorted By Net Return)

Wheat, Spring on Owned Land

	Avg. Of All Farms
Number of farms	14
Acres	387.40
Yield per acre (bu.)	64.50
Operators share of yield %	100.00
Value per bu.	6.70
Total product return per acre	432.29
Hedging gains/losses per acre	0.85
Crop insurance per acre	3.36
Other crop income per acre	2.32
Gross return per acre	438.82
Direct Expenses	
Seed and plants	25.45
Fertilizer	96.34
Crop chemicals	45.65
Crop insurance	22.64
Drying expense	0.52
Fuel & oil	16.74
Repairs	22.58
Custom hire	6.09
Machinery leases	0.83
Operating interest	4.80
Miscellaneous	1.48
Total direct expenses per acre	243.12
Return over direct exp per acre	195.70
Overhead Expenses	
Custom hire	2.31
Hired labor	10.87
Machinery leases	0.91
RE & pers. property taxes	7.36
Farm insurance	6.44
Utilities	3.23
Dues & professional fees	1.37
Interest	39.09
Mach & bldg depreciation	32.85
Miscellaneous	7.66
Total overhead expenses per acre	112.08
Total dir & ovhd expenses per acre	355.20
Net return per acre	83.62
Government payments	-
Net return with govt pmts	83.62
Labor & management charge	20.65
Net return over lbr & mgt	62.98
Cost of Production	
Total direct expense per bu.	3.77
Total dir & ovhd exp per bu.	5.51
Less govt & other income	5.41
With labor & management	5.73
Net value per unit	6.72
Machinery cost per acre	79.43
Est. labor hours per acre	1.11

Crop Enterprise Analysis
North Dakota Farm Business Management Education Program
Region 3 - South Central North Dakota, 2023
(Farms Sorted By Net Return)

Wheat, Spring on Cash Rent

	<u>Avg. Of All Farms</u>
Number of farms	19
Acres	953.05
Yield per acre (bu.)	64.42
Operators share of yield %	100.00
Value per bu.	6.92
Total product return per acre	445.53
Hedging gains/losses per acre	1.30
Crop insurance per acre	5.40
Other crop income per acre	2.09
Gross return per acre	454.32
Direct Expenses	
Seed and plants	25.25
Fertilizer	102.09
Crop chemicals	49.31
Crop insurance	19.50
Fuel & oil	17.70
Repairs	24.93
Custom hire	2.88
Land rent	72.59
Machinery leases	0.98
Operating interest	5.57
Miscellaneous	1.69
Total direct expenses per acre	322.50
Return over direct exp per acre	131.83
Overhead Expenses	
Custom hire	2.03
Hired labor	12.41
Machinery leases	3.00
Farm insurance	5.62
Utilities	3.43
Dues & professional fees	1.59
Interest	1.98
Mach & bldg depreciation	37.02
Miscellaneous	7.23
Total overhead expenses per acre	74.30
Total dir & ovhd expenses per acre	396.80
Net return per acre	57.52
Government payments	-
Net return with govt pmts	57.52
Labor & management charge	28.11
Net return over lbr & mgt	29.41
Cost of Production	
Total direct expense per bu.	5.01
Total dir & ovhd exp per bu.	6.16
Less govt & other income	6.02
With labor & management	6.46
Net value per unit	6.94
Machinery cost per acre	85.78
Est. labor hours per acre	1.07

EXPLANATORY NOTES FOR LIVESTOCK TABLES

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

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

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

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

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

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

Livestock Enterprise Analysis
North Dakota Farm Business Management Education Program
Region 3 - South Central North Dakota, 2023
(Farms Sorted By Net Return)

Beef Cow-Calf -- Average Per Cwt. Produced

	<u>Avg. Of All Farms</u>	
Number of farms		8
	Quantity	Value
Beef Calves sold (lb)	56.33	147.67
Transferred out (lb)	56.29	149.85
Cull sales (lb)	-	43.79
Insurance income		0.46
Government payments		2.65
Other income		2.50
Purchased (lb)	-0.10	-45.69
Transferred in (lb)	-7.62	-23.68
Inventory change (lb)	-6.08	4.99
Gross margin		282.55
Direct Expenses		
Protein Vit Minerals (lb.)	24.69	4.67
Aftermath Grazing (aum)	0.18	14.92
Corn Silage (lb.)	538.96	9.60
Hay, Alfalfa (lb.)	280.96	15.90
Hay, Grass (lb.)	790.53	30.41
Pasture (aum)	1.70	39.30
DDGS, dry (lb.)	45.92	3.80
Hay (lb.)	130.23	4.24
Other feed stuffs (lb)	453.13	13.72
Veterinary		7.34
Fuel & oil		7.18
Repairs		12.79
Hired labor		0.78
Marketing		1.54
Miscellaneous		12.12
Total direct expenses		178.32
Return over direct expense		104.22
Overhead Expenses		
Mach & bldg depreciation		12.07
Miscellaneous		23.27
Total overhead expenses		35.34
Total dir & ovhd expenses		213.66
Net return		68.88
Labor & management charge		20.95
Net return over lbr & mgt		47.93
Cost of Production Per Cwt. Produced		
Total direct expense per unit		178.32
Total dir & ovhd expense per unit		213.66
With other revenue adjustments		224.69
With labor and management		245.64
Est. labor hours per unit		0.97
Other Information		
Number of cows		300.0
Pregnancy percentage		94.1
Pregnancy loss percentage		2.7
Culling percentage		14.1
Calving percentage		91.6
Weaning percentage		80.7
Calves sold per cow		0.85
Calf death loss percent		13.4
Cow death loss percent		1.6
Cows per FTE		736.4
Average weaning weight		521
Lb. weaned/exposed female		421
Feed cost per cow		535.40
Avg wgt/ Beef Calves sold		518
Avg price / cwt.		262.17

Livestock Enterprise Analysis
North Dakota Farm Business Management Education Program
Region 3 - South Central North Dakota, 2023
(Farms Sorted By Net Return)

Beef Cow-Calf -- Average Per Cow

	<u>Avg. Of All Farms</u>	
Number of farms	8	
	Quantity	Value
Beef Calves sold (lb)	220.8	578.92
Transferred out (lb)	220.7	587.46
Cull sales (lb)	-	171.68
Insurance income		1.82
Government payments		10.41
Other income		9.82
Purchased (lb)	-0.4	-179.12
Transferred in (lb)	-29.9	-92.83
Inventory change (lb)	-23.9	19.55
Gross margin		1,107.70
Direct Expenses		
Protein Vit Minerals (lb.)	96.8	18.29
Aftermath Grazing (aum)	0.7	58.51
Corn Silage (lb.)	2,112.9	37.65
Hay, Alfalfa (lb.)	1,101.5	62.33
Hay, Grass (lb.)	3,099.2	119.21
Pasture (aum)	6.7	154.08
DDGS, dry (lb.)	180.0	14.91
Hay (lb.)	510.6	16.62
Other feed stuffs (lb)	1,776.5	53.80
Veterinary		28.78
Fuel & oil		28.14
Repairs		50.15
Marketing		6.05
Miscellaneous		50.58
Total direct expenses		699.10
Return over direct expense		408.59
Overhead Expenses		
Hired labor		42.38
Mach & bldg depreciation		47.32
Miscellaneous		48.84
Total overhead expenses		138.54
Total dir & ovhd expenses		837.64
Net return		270.06
Labor & management charge		82.14
Net return over lbr & mgt		187.92
Cost of Production Per Cwt. Produced		
Total direct expense per unit		178.32
Total dir & ovhd expense per unit		213.66
With other revenue adjustments		224.69
With labor and management		245.64
Est. labor hours per unit		3.80
Other Information		
Number of cows		300.0
Pregnancy percentage		94.1
Pregnancy loss percentage		2.7
Culling percentage		14.1
Calving percentage		91.6
Weaning percentage		80.7
Calves sold per cow		0.85
Calf death loss percent		13.4
Cow death loss percent		1.6
Cows per FTE		736.4
Average weaning weight		521
Lb. weaned/exposed female		421
Feed cost per cow		535.40
Avg wgt/ Beef Calves sold		518
Avg price / cwt.		262.17

Livestock Enterprise Analysis
North Dakota Farm Business Management Education Program
Region 3 - South Central North Dakota, 2023
(Farms Sorted By Net Return)

Beef Backgrounding -- Average Per Cwt. Produced

	Avg. Of All Farms	
Number of farms	5	
	Quantity	Value
Backgnd Beef sold (lb)	437.77	857.94
Transferred out (lb)	0.82	2.07
Other income		8.30
Purchased (lb)	-49.01	-86.80
Transferred in (lb)	-380.99	-878.48
Inventory change (lb)	86.49	277.26
Gross margin		180.29
Direct Expenses		
Midds (lb.)	65.16	5.11
Protein Vit Minerals (lb.)	10.27	6.88
Corn (bu.)	0.95	6.52
Corn Silage (lb.)	562.49	10.79
Hay, Alfalfa (lb.)	89.28	4.64
Hay, Grass (lb.)	159.52	5.91
Pasture (aum)	0.36	7.86
Screenings, Heavy (lb.)	87.85	7.26
DDGS, dry (lb.)	186.78	14.13
Other feed stuffs (lb)	308.15	5.80
Repairs		5.26
Hauling and trucking		1.97
Operating interest		2.72
Miscellaneous		8.43
Total direct expenses		93.27
Return over direct expense		87.02
Overhead Expenses		
Hired labor		4.85
Mach & bldg depreciation		5.15
Miscellaneous		5.14
Total overhead expenses		15.14
Total dir & ovhd expenses		108.41
Net return		71.88
Labor & management charge		7.87
Net return over lbr & mgt		64.02
Cost of Production Per Cwt. Produced		
Total direct expense per unit		176.24
Total dir& ovhd expense per unit		179.70
With other revenue adjustments		179.70
With labor and management		181.49
Est. labor hours per unit		0.36
Other Information		
No. purchased or trans in		286
Number sold or trans out		227
Percentage death loss		0.5
Avg. daily gain (lb.)		1.61
Lb. of conc / lb. of gain		4.85
Lb. of feed / lb. of gain		11.45
Feed cost per cwt. of gain		74.90
Feed cost per head		153.48
Hired labor per head		9.93
Average purchase weight		459
Avg wgt / Backgnd Beef sold		746
Avg purch price / cwt.		177.09
Avg sales price / cwt.		195.98

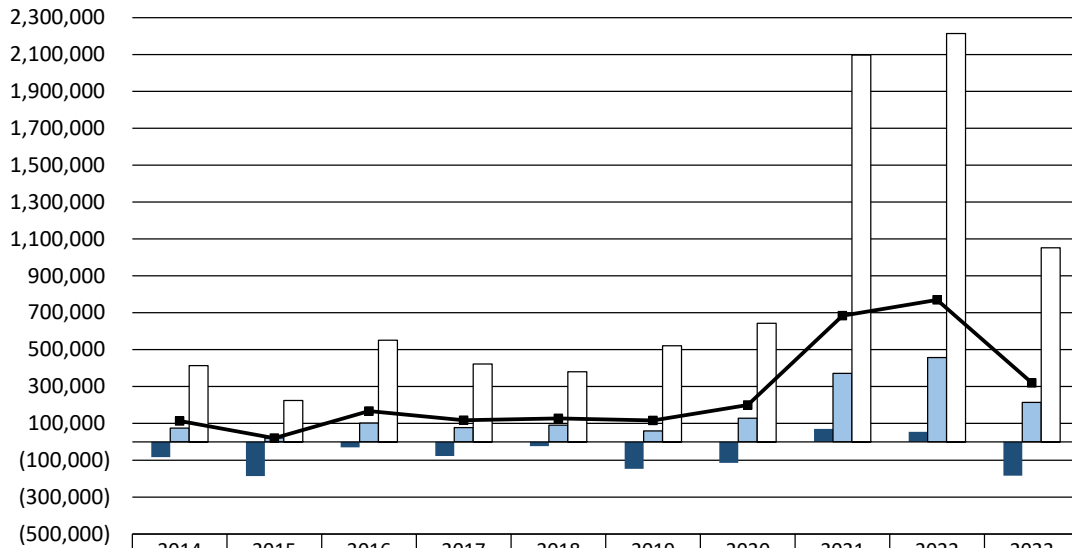
Livestock Enterprise Analysis
North Dakota Farm Business Management Education Program
Region 3 - South Central North Dakota, 2023
(Farms Sorted By Net Return)

Beef Backgrounding -- Average Per Head

	<u>Avg. Of All Farms</u>	
Number of farms	5	
	Quantity	Value
Backgnd Beef sold (lb)	897.1	1,758.07
Transferred out (lb)	1.7	4.25
Other income		17.00
Purchased (lb)	-100.4	-177.86
Transferred in (lb)	-780.7	-1,800.15
Inventory change (lb)	177.2	568.15
Gross margin		369.45
Direct Expenses		
Midds (lb.)	133.5	10.47
Protein Vit Minerals (lb.)	21.0	14.11
Corn (bu.)	1.9	13.35
Corn Silage (lb.)	1,152.6	22.10
Hay, Alfalfa (lb.)	182.9	9.51
Hay, Grass (lb.)	326.9	12.11
Pasture (aum)	0.7	16.10
Screenings, Heavy (lb.)	180.0	14.87
DDGS, dry (lb.)	382.8	28.96
Other feed stuffs (lb)	631.5	11.89
Repairs		10.78
Hauling and trucking		4.03
Operating interest		5.57
Miscellaneous		17.27
Total direct expenses		191.13
Return over direct expense		178.32
Overhead Expenses		
Hired labor		9.93
Mach & bldg depreciation		10.54
Miscellaneous		10.54
Total overhead expenses		31.02
Total dir & ovhd expenses		222.15
Net return		147.30
Labor & management charge		16.12
Net return over lbr & mgt		131.18
Cost of Production Per Cwt. Produced		
Total direct expense per unit		176.24
Total dir& ovhd expense per unit		179.70
With other revenue adjustments		179.70
With labor and management		181.49
Est. labor hours per unit		0.74
Other Information		
No. purchased or trans in		286
Number sold or trans out		227
Percentage death loss		0.5
Avg. daily gain (lb.)		1.61
Lb. of conc / lb. of gain		4.85
Lb. of feed / lb. of gain		11.45
Feed cost per cwt. of gain		74.90
Feed cost per head		153.48
Hired labor per head		9.93
Average purchase weight		459
Avg wgt / Backgnd Beef sold		746
Avg purch price / cwt.		177.09
Avg sales price / cwt.		195.98

Figure 1. Net Farm Income (Accrual) Per Farm

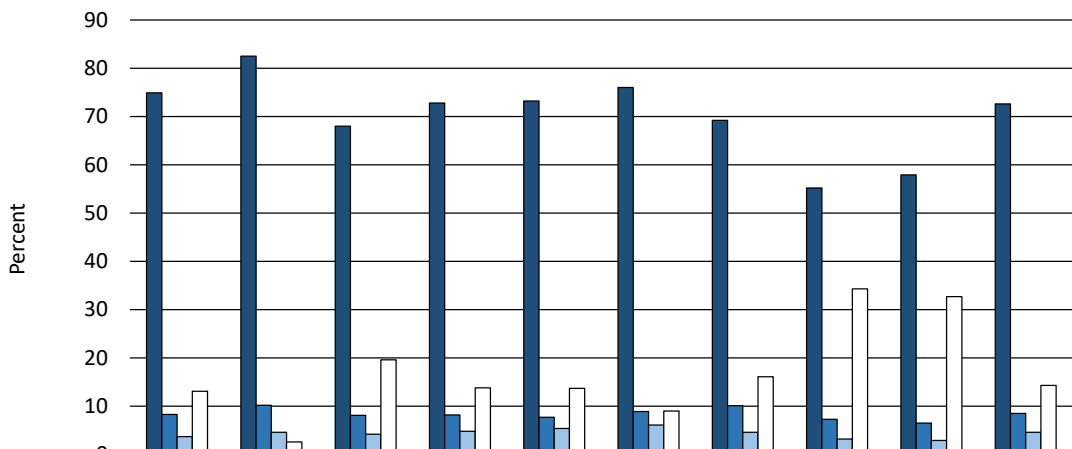
N.D. Farm Business Management Education Program – South Central Region



	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
■ 20% Low Profit	(82,920)	(185,675)	(29,894)	(77,071)	(23,274)	(146,513)	(114,235)	69,968	54,083	-183,810
■ Middle 60% Profit	74,456	20,908	101,747	77,117	90,127	58,974	127,985	370,840	456,916	213,871
□ 20% High Profit	413,037	223,916	550,974	421,964	379,822	520,986	642,459	2,097,240	2,213,753	1,052,295
— Average of All	112,920	20,193	166,574	116,714	127,089	115,683	199,441	683,949	769,741	319,533

Figure 2. Financial Efficiency Measures (As Percent of Gross Revenue)

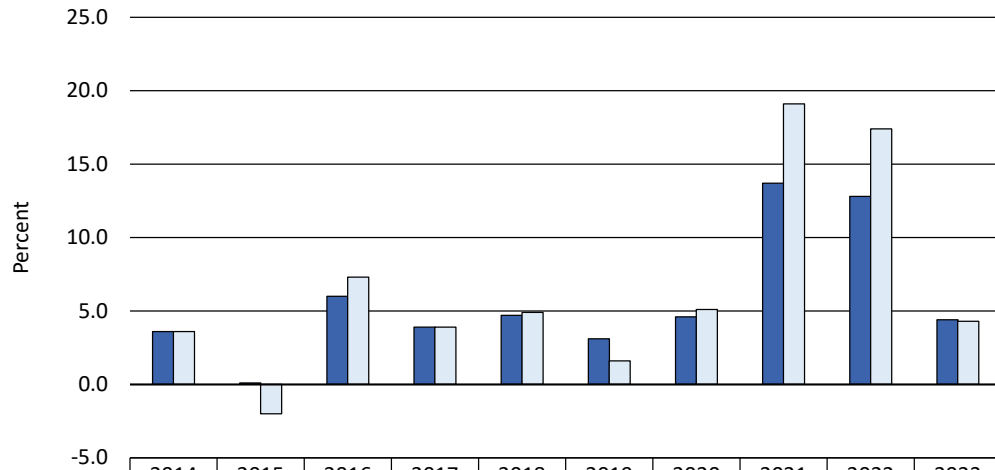
N.D. Farm Business Management Education Program – South Central Region



	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
■ Operating Exp. %	74.9	82.5	68.0	72.8	73.2	76.0	69.2	55.2	57.9	72.6
■ Depreciation %	8.3	10.2	8.1	8.2	7.7	8.9	10.1	7.3	6.5	8.5
■ Interest Exp. %	3.7	4.6	4.2	4.8	5.4	6.1	4.6	3.2	2.9	4.6
□ Net Farm Inc. %	13.1	2.6	19.6	13.8	13.7	9.0	16.1	34.3	32.7	14.3

Figure 3. Profitability Measures Per Farm

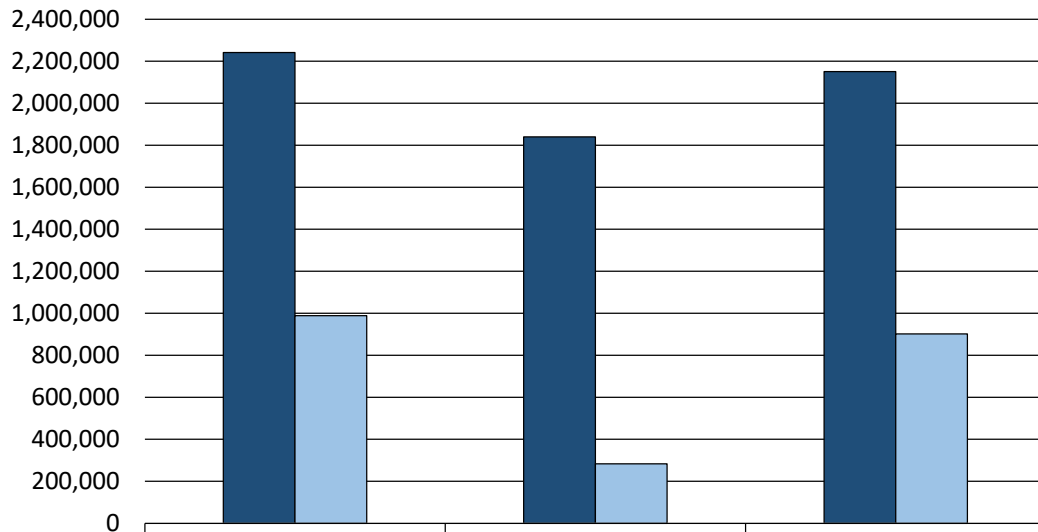
N.D. Farm Business Management Education Program – South Central Region



	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Rate of Return on Assets	3.6	0.1	6.0	3.9	4.7	3.1	4.6	13.7	12.8	4.4
Rate of Return on Equity	3.6	-2.0	7.3	3.9	4.9	1.6	5.1	19.1	17.4	4.3

Figure 4. Assets and Liabilities Per Farm, 2023

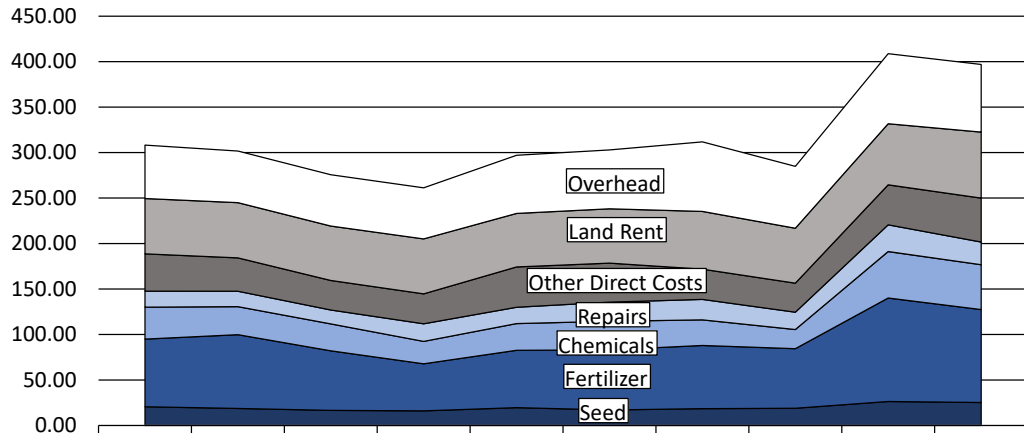
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	Current	Intermediate	Longterm
Farm Assets	2,241,569	1,839,814	2,150,757
Farm Liabilities	988,494	283,244	901,461

Figure 5. Spring Wheat Costs Per Acre

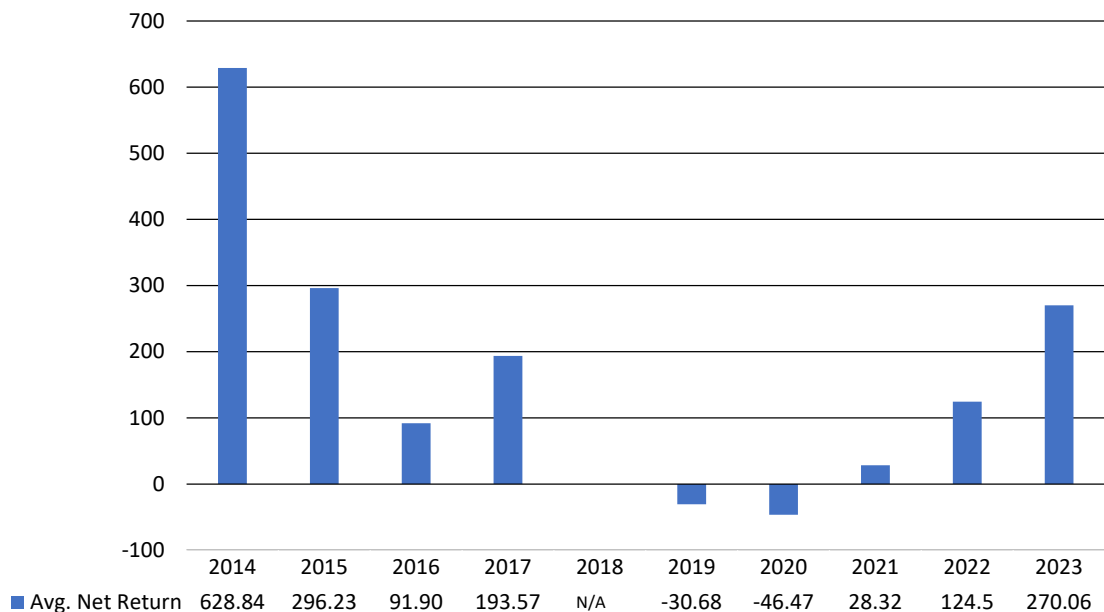
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	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Overhead	58.73	56.76	56.47	56.15	63.94	64.71	76.51	68.08	77.00	74.30
Land Rent	60.77	60.73	59.82	60.46	58.81	59.73	63.47	60.39	67.19	72.59
Other Direct Costs	41.03	36.68	32.46	32.89	44.32	42.81	33.22	31.94	43.94	48.33
Repairs	17.67	16.95	15.23	19.34	17.96	21.09	22.53	18.96	29.42	24.93
Chemicals	35.09	30.74	29.61	24.65	29.40	31.51	28.09	21.07	51.06	49.31
Fertilizer	74.33	81.16	65.51	51.71	63.00	65.99	69.48	65.46	113.73	102.09
Seed	20.59	18.70	16.59	16.09	19.63	17.05	18.51	18.97	26.38	25.25

Figure 6. Average Net Return Per Beef Cow

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