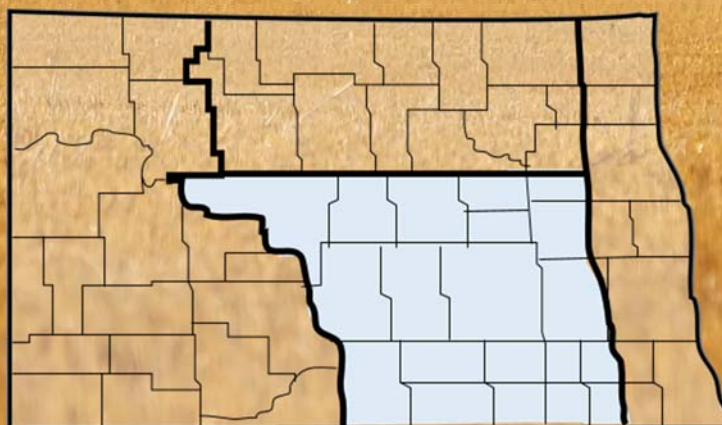


2020 ANNUAL REPORT

South Central North Dakota

North Dakota Farm and Ranch Business
Management Education



www.ndfarmmanagement.com



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and Technical Education

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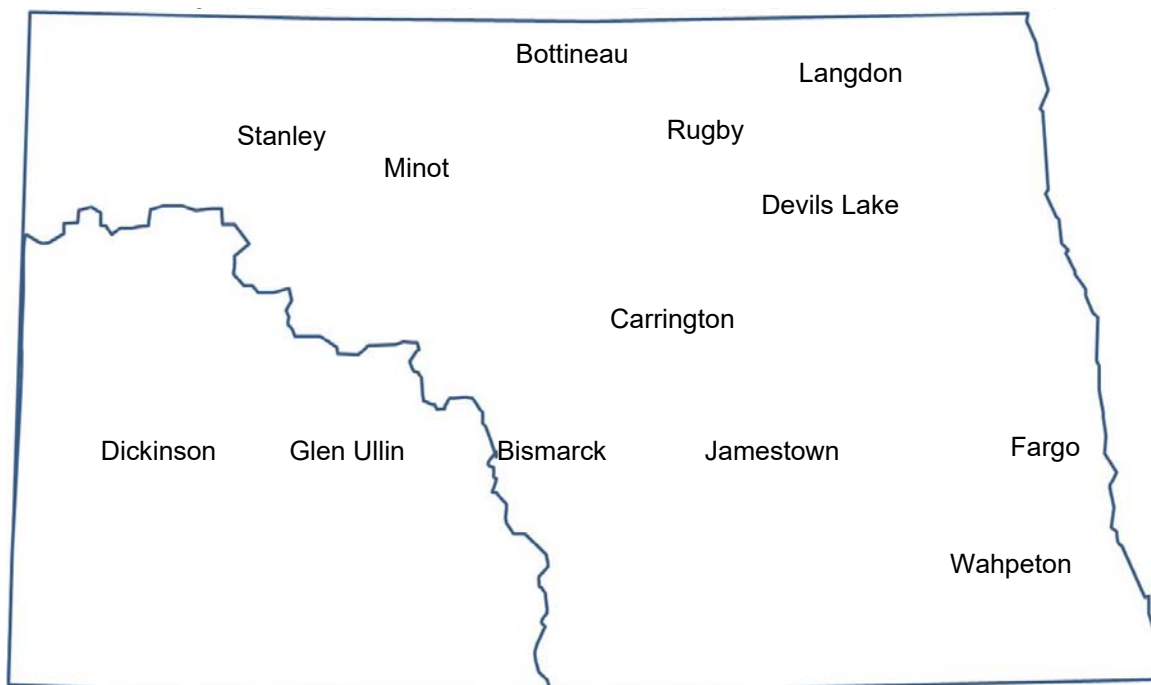
NORTH DAKOTA FARM BUSINESS MANAGEMENT EDUCATION

REGION 3 – SOUTH CENTRAL AVERAGES 2020 ANNUAL REPORT

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

<u>School</u>	<u>Instructor</u>
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Dakota College at Bottineau – Minot	Lynsey Aberle
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	Steve Metzger
Fargo (NDSCS).....	Kelcey Hoffmann
Jamestown (NDSCS).....	Jason Fewell
Wahpeton (NDSCS).....	Kara Wulfekuhle

This report was made possible by the farm families who cooperated with their farm management instructors in getting the records for 2020 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.



2020 South Central Report

North Dakota Farm Business Management Education

Introduction	1
Explanatory Notes for the Farm Operators' Reports	2
Farm Income Statement	7
Inventory Changes	9
Depreciation.....	10
Profitability Measures	11
Liquidity and Repayment Capacity Measures.....	12
Balance Sheet at Cost Values	13
Statement of Cash Flows	14
Financial Standards Measures	15
Crop Production and Marketing Summary	16
Household and Personal Expenses	17
Operator and Labor Information	18
Nonfarm Summary.....	19
Financial Summary (sorted by gross farm income)	20
Financial Summary (sorted by age of operator).....	21
Financial Summary (sorted by farm type).....	22
Explanatory Notes for Crop Tables	23
Barley on Cash Rent.....	24
Beans, Pinto on Cash Rent	25
Corn on Owned Land.....	26
Corn on Cash Rent	27
Corn Silage on Owned Land.....	28
CRP on Owned Land	29
Hay, Alfalfa on Owned Land	30
Hay, Alfalfa on Cash Rent.....	31
Hay, Grass on Cash Rent.....	32
Hay, Small Grain on Owned Land	33
Hay, Small Grain on Cash Rent.....	34
Pasture on Owned Land	35
Pasture on Cash Rent	36
Prevented Planting on Owned Land	37
Prevented Planting on Cash Rent.....	38
Soybeans on Owned Land	39
Soybeans on Cash Rent	40
Soybeans on Share Rent.....	41
Sunflowers on Cash Rent	42
Wheat, Durum on Cash Rent.....	43
Wheat, Spring on Owned Land	44
Wheat, Spring on Cash Rent	45
Wheat, Spring on Share Rent.....	46
Explanatory Notes for Livestock Tables	47
Beef Cow-Calf – Average Per Cwt. Produced	48
Beef Cow-Calf – Average Per Cow.....	49
Beef Cow-Calf Whole Herd w/backgrounding – Average Per Cwt. Produced	50
Beef Cow-Calf Whole Herd w/backgrounding – Average Per Cow	51

Beef Replacement Heifers – Average Per Head	52
Beef Replacement Heifers – Average Per Head Sold/Trans	53
Figure 1. Net Farm Income (Accrual) per Farm	54
Figure 2. Financial Efficiency Measures	54
Figure 3. Profitability Measure per Farm	55
Figure 4. Assets and Liabilities per Farm, 2020	55
Figure 5. Spring Wheat Costs per Acre	56
Figure 6. Average Net Return per Beef Cow	56

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 2020 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 32nd 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, CSP, and Market Facilitation Payments (MFP).

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

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

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

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

Inventory Changes

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

Depreciation

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

Profitability Measures

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

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

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

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

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

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

"Value of operator's labor and management" is an opportunity cost for unpaid operator's labor and management that is used in the calculation of several financial performance measures. A value of \$25,000 per full time operator plus 5% of value of farm production is used.

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

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

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

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

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

Liquidity & Repayment Capacity Measures

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

Balance Sheets

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

Statement of Cash Flows

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

Financial Standards Measures

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

Liquidity

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

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

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

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

Solvency

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

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

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

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

Profitability

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

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

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

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

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

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

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

Repayment Capacity

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

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

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

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

Term Debt Coverage Ratio: The term debt coverage ratio measures the ability of the business to cover all term debt payments. A number less than 100 percent indicates that the business, plus non-farm income, is not generating sufficient cash to meet all of the debt payments, after family living expenses and taxes have been paid. A number greater than 100 indicates the business is generating sufficient cash to pay all term debt obligations with some surplus margin remaining.

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

Efficiency

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

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

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

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

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

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

Crop Production and Marketing Summary

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

Household and Personal Expenses

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

Operator and Labor Information

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

Nonfarm Summary

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

Farm Income Statement
North Dakota Farm Business Management Education Program
Region 3 - South Central North Dakota, 2020
(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	72	14	15	15
Cash Farm Income				
Barley	20,724	1,278	5,198	80,483
Beans, Black Turtle	3,007	-	-	-
Beans, Navy	6,043	-	29,007	-
Beans, Pinto	33,771	4,578	19,944	47,917
Corn	181,296	186,717	75,821	316,834
Hay, Small Grain	52	-	-	252
Oats	213	191	-	844
Peas, Field	1,299	-	1,169	5,067
Rye	1,307	-	2,564	-
Soybeans	310,437	183,193	178,024	749,558
Sunflowers	8,815	-	-	38,926
Sunflowers, Confectionary	3,879	-	10,679	7,942
Wheat, Durum	24,901	-	3,604	105,973
Wheat, Spring	153,683	52,270	102,524	385,616
Rented Out	1,343	3,202	240	2,039
All Hays	740	2,997	-	756
Other Crop Sales	23,633	-	-	113,436
Miscellaneous crop income	19,806	5,457	31,213	36,755
Beef Cow-Calf, Beef Calves	27,204	46,131	17,536	24,646
Beef Replacement Heifers	5,274	-	-	4,831
Beef Backgrounding	11,346	3,239	18,288	-
Beef Finishing	7,794	3,849	-	32,715
Beef Finish Yearlings	4,109	-	-	1,481
Beef Stockers	6,278	10,874	-	15,125
All Dairy	50,956	-	-	-
Sheep, Feeder Lamb Prod, Fdr Lambs	118	605	-	-
Other Livestock	1,193	5,281	-	350
Cull breeding livestock	8,804	4,357	3,714	9,610
Other livestock income	4,660	22,513	-	-
Crop government payments	43,593	24,245	27,477	88,484
CRP payments	1,998	1,699	2,990	2,343
Other government payments	134,703	76,819	94,970	263,987
Conservation govt payment	12,137	4,706	24,231	9,775
Custom work income	11,621	23,224	1,783	23,193
Patronage dividends, cash	5,850	3,344	1,352	2,566
Crop insurance income	187,531	189,711	161,294	390,220
Property insurance income	1,003	1,605	2,524	344
Sale of resale items	1,962	10,089	-	-
Farm rental income	5,402	24,539	1,400	-
Other farm income	17,852	8,767	14,810	32,646
Gross Cash Farm Income	1,346,336	905,478	832,356	2,794,712

Farm Income Statement (continued)
North Dakota Farm Business Management Education Program
Region 3 - South Central North Dakota, 2020
(Farms Sorted By Net Farm Income)

	<u>Ava. Of</u> <u>All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	72	14	15	15
Cash Farm Expense				
Seed and plants	120,236	61,396	79,302	231,438
Fertilizer	115,774	66,172	78,607	245,571
Crop chemicals	86,974	47,268	66,370	191,287
Crop insurance	43,562	24,539	33,722	97,482
Drying expense	2,181	3,339	1,220	2,463
Storage	1,673	-	698	6,589
Irrigation energy	824	434	339	83
Crop miscellaneous	3,184	2,258	4,528	3,914
Consultants	3,859	1,608	906	6,462
Feeder livestock purchase	14,631	23,744	8,430	12,579
Purchased feed	30,095	25,441	3,723	19,240
Breeding fees	975	-	-	317
Veterinary	4,958	4,255	1,264	2,799
Supplies	4,780	172	524	847
Grazing fees	273	89	-	-
Interest	63,980	61,956	23,977	109,911
Fuel & oil	41,222	30,421	23,959	72,276
Repairs	89,969	93,502	57,274	132,233
Custom hire	18,572	16,558	20,949	32,946
Hired labor	53,009	31,083	13,538	101,646
Land rent	160,824	141,634	83,624	331,434
Machinery leases	16,745	19,895	3,047	38,121
Building leases	850	172	202	2,757
Real estate taxes	7,462	5,772	5,911	12,734
Farm insurance	19,283	13,926	10,520	40,895
Utilities	16,830	15,144	8,794	28,427
Hauling and trucking	3,279	-	-	-
Marketing	966	136	371	78
Dues & professional fees	7,899	6,609	1,797	24,962
Miscellaneous	19,405	16,022	14,876	34,627
Licenses & registrations	352	56	1,050	-
Total cash expense	954,625	713,603	549,519	1,784,116
Net cash farm income	391,711	191,876	282,837	1,010,596
Inventory Changes				
Prepays and supplies	35,606	-22,132	41,035	85,589
Accounts receivable	-19,995	-4,781	-38,790	-52,434
Heading accounts	-3,402	334	-2,369	-9,485
Other current assets	-305	110	-109	322
Crops and feed	-69,956	-164,198	-57,388	-53,013
Market livestock	-1,088	11,880	2,680	-24,878
Breeding livestock	-7,419	-19,744	-6,274	-2,932
Other assets	-6,465	298	-3,795	-33,048
Accounts payable	-1,412	-8,211	-9,981	-6,352
Accrued interest	7,118	5,941	2,391	8,899
Total inventory change	-67,317	-200,503	-72,600	-87,333
Net operating profit	324,395	-8,628	210,237	923,263
Depreciation				
Machinery and equipment	-101,040	-81,196	-67,895	-240,469
Titled vehicles	-8,628	-6,340	-3,002	-16,135
Buildings and improvements	-14,931	-10,228	-9,982	-32,605
Total depreciation	-124,599	-97,764	-80,878	-289,209
Net farm income from operations	199,795	-106,391	129,359	634,054
Gain or loss on capital sales	-354	-7,844	-1,373	8,405
Net farm income	199,441	-114,235	127,985	642,459

Inventory Changes
North Dakota Farm Business Management Education Program
Region 3 - South Central North Dakota, 2020
(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	72	14	15	15
Net cash farm income	391,711	191,876	282,837	1,010,596
Crops and Feed				
Ending inventory	802,956	195,276	403,438	2,426,475
Beginning inventory	872,911	359,474	460,826	2,479,488
Inventory change	-69,956	-164,198	-57,388	-53,013
Market Livestock				
Ending inventory	48,619	47,681	25,752	42,302
Beginning inventory	49,706	35,801	23,071	67,180
Inventory change	-1,088	11,880	2,680	-24,878
Accts Receivable				
Ending inventory	71,311	35,981	54,777	169,267
Beginning inventory	91,306	40,762	93,567	221,702
Inventory change	-19,995	-4,781	-38,790	-52,434
Prepaid Expenses and Supplies				
Ending inventory	143,823	24,019	85,874	437,512
Beginning inventory	108,217	46,151	44,839	351,924
Inventory change	35,606	-22,132	41,035	85,589
Hedging Activities				
Ending inventory	6,575	4,190	1,478	22,070
Withdrawals	9,669	1,786	-	42,000
Beginning inventory	9,635	3,924	2,194	35,944
Deposits	10,011	1,718	1,653	37,611
Gain or loss	-3,402	334	-2,369	-9,485
Other Current Assets				
Ending inventory	8,360	110	197	4,426
Beginning inventory	8,665	-	306	4,104
Inventory change	-305	110	-109	322
Breeding Livestock				
Ending inventory	114,599	91,292	38,490	125,103
Capital sales	9,875	10,451	13,843	-
Beginning inventory	119,396	109,852	53,602	120,811
Capital purchases	12,497	11,635	5,005	7,223
Depreciation, capital adjust	-7,419	-19,744	-6,274	-2,932
Other Capital Assets				
Ending inventory	169,523	45,039	35,645	637,741
Capital sales	1,865	87	-	8,841
Beginning inventory	146,442	44,125	38,946	532,693
Capital purchases	31,412	702	493	146,938
Depreciation, capital adjust	-6,465	298	-3,795	-33,048
Accounts Payable				
Beginning inventory	28,722	24,700	7,795	58,640
Ending inventory	30,135	32,911	17,777	64,993
Inventory change	-1,412	-8,211	-9,981	-6,352
Accrued Interest				
Beginning inventory	31,483	33,830	11,821	55,330
Ending inventory	24,365	27,889	9,431	46,431
Inventory change	7,118	5,941	2,391	8,899
Total inventory change	-67,317	-200,503	-72,600	-87,333
Net operating profit	324,395	-8,628	210,237	923,263

Depreciation
North Dakota Farm Business Management Education Program
Region 3 - South Central North Dakota, 2020
(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	72	14	15	15
Net operating profit	324,395	-8,628	210,237	923,263
Machinery and Equipment				
Ending inventory	990,451	744,529	737,849	2,279,450
Capital sales	20,909	39,144	9,141	27,471
Beginning inventory	910,239	765,454	707,917	1,986,856
Capital purchases	202,162	99,414	106,967	560,535
Depreciation, capital adjust.	-101,040	-81,196	-67,895	-240,469
Titled Vehicles				
Ending inventory	69,900	49,937	25,573	127,660
Capital sales	1,264	870	245	2,333
Beginning inventory	67,794	46,666	24,008	121,353
Capital purchases	11,998	10,481	4,812	24,776
Depreciation, capital adjust.	-8,628	-6,340	-3,002	-16,135
Buildings and Improvements				
Ending inventory	388,574	265,969	223,368	935,983
Capital sales	894	-	-	1,293
Beginning inventory	367,951	275,579	229,184	838,908
Capital purchases	36,448	619	4,166	130,973
Depreciation, capital adjust.	-14,931	-10,228	-9,982	-32,605
Total depreciation, capital adj.	-124,599	-97,764	-80,878	-289,209
Net farm income from operations	199,795	-106,391	129,359	634,054
Gain or loss on capital sales	-354	-7,844	-1,373	8,405
Net farm income	199,441	-114,235	127,985	642,459

Profitability Measures
North Dakota Farm Business Management Education Program
Region 3 - South Central North Dakota, 2020
(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	72	14	15	15
Profitability (assets valued at cost)				
Net farm income from operations	199,795	-106,391	129,359	634,054
Rate of return on assets	4.6 %	-4.6 %	3.7 %	6.7 %
Rate of return on equity	5.1 %	-14.1 %	3.8 %	8.0 %
Operating profit margin	14.6 %	-16.2 %	13.1 %	22.3 %
Asset turnover rate	31.9 %	28.6 %	28.5 %	30.0 %
 Farm interest expense	 56,861	 56,015	 21,586	 101,012
Value of operator lbr and mgmt.	82,846	59,656	57,079	158,560
Return on farm assets	173,810	-110,032	93,866	576,506
Average farm assets	3,743,325	2,380,548	2,505,578	8,614,123
Return on farm equity	116,949	-166,047	72,280	475,494
Average farm equity	2,292,467	1,181,342	1,885,728	5,951,814
Value of farm production	1,192,839	680,083	714,268	2,586,940

Liquidity & Repayment Capacity Measures
North Dakota Farm Business Management Education Program
Region 3 - South Central North Dakota, 2020
(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	72	14	15	15
Liquidity				
Current ratio	2.08	1.12	3.56	2.36
Working capital	612,885	41,733	504,852	1,908,395
Working capital to gross inc	49.5 %	5.7 %	69.5 %	72.9 %
Current assets	1,181,203	391,480	702,192	3,307,165
Current liabilities	568,319	349,746	197,340	1,398,770
Gross revenues (accrual)	1,237,566	729,268	726,421	2,618,759
Repayment capacity				
Net farm income from operations	199,795	-106,391	129,359	634,054
Depreciation	124,599	97,764	80,878	289,209
Personal income	38,839	55,717	31,569	51,467
Family living/owner withdrawals	-77,283	-74,203	-49,052	-107,222
Cash discrepancy	-75	-280	552	-885
Payments on personal debt	-5,164	-3,505	-7,764	-4,663
Income taxes paid	-19,239	-29,948	-15,087	-24,520
Interest on term debt	39,338	39,095	16,904	63,983
Capital debt repayment capacity	300,811	-21,752	187,359	901,423
Scheduled term debt payments	-122,454	-96,348	-77,652	-209,178
Capital debt repayment margin	178,357	-118,100	109,707	692,245
Cash replacement allowance	-70,930	-62,923	-57,803	-160,033
Replacement margin	107,427	-181,023	51,904	532,212
Term debt coverage ratio	2.46	-0.23	2.41	4.31
Replacement coverage ratio	1.56	-0.14	1.38	2.44

Balance Sheet at Cost Values
North Dakota Farm Business Management Education Program
Region 3 - South Central North Dakota, 2020
(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	72	14	15	15
Assets				
Current Farm Assets				
Cash and checking balance	99,560	84,223	130,678	205,112
Prepaid expenses & supplies	143,823	24,019	85,874	437,512
Growing crops	330	110	130	999
Accounts receivable	71,311	35,981	54,777	169,267
Hedging accounts	6,575	4,190	1,478	22,070
Crops held for sale or feed	802,956	195,276	403,438	2,426,475
Crops under government loan	-	-	-	-
Market livestock held for sale	48,619	47,681	25,752	42,302
Other current assets	8,030	-	67	3,428
Total current farm assets	1,181,203	391,480	702,192	3,307,165
Intermediate Farm Assets				
Breeding livestock	114,599	91,292	38,490	125,103
Machinery and equipment	990,451	744,529	737,849	2,279,450
Titled vehicles	69,900	49,937	25,573	127,660
Other intermediate assets	28,254	24,654	8,951	34,292
Total intermediate farm assets	1,203,204	910,412	810,863	2,566,505
Long Term Farm Assets				
Farm land	869,451	630,660	734,699	1,494,350
Buildings and improvements	388,574	265,969	223,368	935,983
Other long-term assets	141,269	20,385	26,694	603,449
Total long-term farm assets	1,399,294	917,014	984,761	3,033,782
Total Farm Assets	3,783,701	2,218,906	2,497,817	8,907,451
Total Nonfarm Assets	343,736	513,480	256,955	445,924
Total Assets	4,127,437	2,732,386	2,754,772	9,353,375
Liabilities				
Current Farm Liabilities				
Accrued interest	24,365	27,889	9,431	46,431
Accounts payable	30,135	32,911	17,777	64,993
Current notes	419,249	231,390	112,597	1,122,200
Government crop loans	-	-	-	-
Principal due on term debt	94,570	57,555	57,536	165,146
Total current farm liabilities	568,319	349,746	197,340	1,398,770
Total intermediate farm liabs	231,034	256,551	108,351	347,017
Total long term farm liabilities	632,638	536,267	257,498	951,738
Total farm liabilities	1,431,991	1,142,564	563,189	2,697,524
Total nonfarm liabilities	60,125	43,779	29,943	113,416
Total liabilities	1,492,116	1,186,343	593,132	2,810,940
Net worth (farm and nonfarm)	2,635,321	1,546,043	2,161,640	6,542,435
Net worth change	153,991	-153,484	119,717	562,030
Percent net worth change	6 %	-9 %	6 %	9 %
Ratio Analysis				
Current farm liabilities / assets	48 %	89 %	28 %	42 %
Intermediate farm liab. / assets	19 %	28 %	13 %	14 %
Long term farm liab. / assets	45 %	58 %	26 %	31 %
Total debt to asset ratio	36 %	43 %	22 %	30 %

Statement Of Cash Flows
North Dakota Farm Business Management Education Program
Region 3 - South Central North Dakota, 2020
(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	72	14	15	15
Beginning cash (farm & nonfarm)	88,739	108,304	124,570	132,056
Cash Provided By Operating Activities				
Gross cash farm income	1,346,336	905,478	832,356	2,794,712
Total cash farm expense	-954,625	-713,603	-549,519	-1,784,116
Net cash from hedging transactions	-342	68	-1,653	4,389
Cash provided by operating	391,370	191,943	281,184	1,014,985
Cash Provided By Investing Activities				
Sale of breeding livestock	9,105	10,451	12,429	-
Sale of machinery & equipment	21,049	37,193	9,207	29,244
Sale of titled vehicles	1,728	929	220	4,310
Sale of farm land	15,021	76,329	-	862
Sale of farm buildings	1,807	-	-	5,672
Sale of other farm assets	1,869	87	-	8,864
Sale of nonfarm assets	1,100	1,619	1,716	-
Purchase of breeding livestock	-12,497	-11,635	-5,005	-7,223
Purchase of machinery & equip.	-202,162	-99,414	-106,967	-560,535
Purchase of titled vehicles	-11,998	-10,481	-4,812	-24,776
Purchase of farm land	-12,066	-	-2,800	-53,920
Purchase of farm buildings	-36,448	-619	-4,166	-130,973
Purchase of other farm assets	-31,412	-702	-493	-146,938
Purchase of nonfarm assets	-20,091	-24,095	-15,463	-31,088
Cash provided by investing	-274,994	-20,339	-116,135	-906,501
Cash Provided By Financing Activities				
Money borrowed	970,370	761,958	321,112	2,170,117
Principal payments	-1,002,348	-876,405	-441,458	-2,099,610
Personal income	38,839	55,717	31,569	51,467
Family living/owner withdrawals	-77,283	-74,203	-49,052	-107,222
Income and social security tax	-19,149	-29,948	-13,618	-26,620
Capital contributions	-	-	-	-
Capital distributions	-5,216	-21,113	-	-5,333
Dividends paid	-	-	-	-
Cash gifts and inheritances	4,382	1,301	17,146	2,389
Gifts given	-782	-2,107	-	-1,274
Other cash flows	-	-	-	-
Cash provided by financing	-91,188	-184,801	-134,302	-16,086
Net change in cash balance	25,188	-13,197	30,747	92,398
Ending cash (farm & nonfarm)	113,853	94,826	155,870	223,569
Discrepancy	75	280	-552	885

Financial Standards Measures
North Dakota Farm Business Management Education Program
Region 3 - South Central North Dakota, 2020
(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	72	14	15	15
Liquidity				
Current ratio	2.08	1.12	3.56	2.36
Working capital	612,885	41,733	504,852	1,908,395
Working capital to gross inc	49.5 %	5.7 %	69.5 %	72.9 %
Solvency (market)				
Farm debt to asset ratio	30 %	34 %	17 %	26 %
Farm equity to asset ratio	70 %	66 %	83 %	74 %
Farm debt to equity ratio	0.43	0.50	0.21	0.35
Profitability (cost)				
Rate of return on farm assets	4.6 %	-4.6 %	3.7 %	6.7 %
Rate of return on farm equity	5.1 %	-14.1 %	3.8 %	8.0 %
Operating profit margin	14.6 %	-16.2 %	13.1 %	22.3 %
Net farm income	199,441	-114,235	127,985	642,459
EBITDA	381,256	47,387	231,823	1,024,275
Repayment Capacity				
Capital debt repayment capacity	300,811	-21,752	187,359	901,423
Capital debt repayment margin	178,357	-118,100	109,707	692,245
Replacement margin	107,427	-181,023	51,904	532,212
Term debt coverage ratio	2.46	-0.23	2.41	4.31
Replacement coverage ratio	1.56	-0.14	1.38	2.44
Efficiency				
Asset turnover rate (cost)	31.9 %	28.6 %	28.5 %	30.0 %
Operating expense ratio	69.2 %	93.5 %	68.1 %	60.9 %
Depreciation expense ratio	10.1 %	13.4 %	11.1 %	11.0 %
Interest expense ratio	4.6 %	7.7 %	3.0 %	3.9 %
Net farm income ratio	16.1 %	-14.6 %	17.8 %	24.2 %

Crop Production and Marketing Summary
North Dakota Farm Business Management Education Program
Region 3 - South Central North Dakota, 2020
(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	72	14	15	15
Acreage Summary				
Total acres owned	1,071	883	1,040	1,763
Total crop acres	2,870	1,390	2,026	6,373
Crop acres owned	671	291	706	1,358
Crop acres cash rented	2,156	1,069	1,289	4,950
Crop acres share rented	43	30	31	65
Total pasture acres	369	395	197	368
Percent crop acres owned	23 %	21 %	35 %	21 %
Mach invest/crop acre cost	336	383	369	354
Mach invest/crop acre market	405	458	446	408
Average Price Received (Cash Sales Only)				
Soybeans per bushel	8.36	8.78	8.34	8.07
Wheat, Spring per bushel	4.86	4.86	4.57	5.03
Corn per bushel	3.07	3.01	2.89	3.13
Beans, Pinto per cwt	27.29	-	-	-
Barley per bushel	3.45	-	-	-
Wheat, Durum per bushel	6.14	-	-	6.17
Canola per cwt	14.55	-	-	-
Rented Out per \$	39.47	-	-	-
Hay, Grass per ton	62.80	-	-	-
Sunflowers per cwt	18.01	-	-	-
Rye per bushel	5.04	-	-	-
Average Yield Per Acre				
Soybeans (bushel)	31.85	27.25	29.82	33.98
Wheat, Spring (bushel)	57.82	58.76	52.90	61.04
Corn (bushel)	115.72	97.69	103.79	128.52
Beans, Pinto (cwt)	16.57	-	-	17.36
Hay, Grass (ton)	1.25	-	-	1.74
Hay, Small Grain (ton)	2.24	2.36	-	-
Sunflowers (cwt)	23.48	-	-	24.68
Wheat, Durum (bushel)	58.60	-	-	59.70
Hay, Mixed Alfalfa/Grass (ton)	1.36	-	-	-
Canola (cwt)	21.26	-	-	23.91
Hay, Alfalfa (ton)	2.93	-	-	-
Corn Silage (ton)	19.67	-	-	-
Barley (bushel)	67.63	-	-	-
Rye (bushel)	52.88	-	-	-

Household and Personal Expenses
North Dakota Farm Business Management Education Program
Region 3 - South Central North Dakota, 2020
(Farms Sorted By Net Farm Income)

	<u>Avg. Of All Farms</u>
Number of farms	7
Average family size	2.4
Family Living Expenses	
Food and meals expense	10,175
Medical care	4,158
Health insurance	16,282
Cash donations	4,268
Household supplies	7,468
Clothing	2,354
Personal care	4,683
Child / Dependent care	-
Alimony and child support	-
Gifts	4,963
Education	165
Recreation	2,502
Utilities (household share)	2,447
Personal vehicle operating exp	1,168
Household real estate taxes	2,168
Dwelling rent	-
Household repairs	794
Personal interest	1,665
Disability / Long term care ins	-
Life insurance payments	1,942
Personal property insurance	1,110
Miscellaneous	2,073
Total cash family living expense	70,385
Family living from the farm	-
Total family living	70,385
Other Nonfarm Expenditures	
Income taxes	63,955
Furnishing & appliance purchases	59
Nonfarm vehicle purchases	8,843
Nonfarm real estate purchases	18,065
Other nonfarm capital purchases	8,434
Nonfarm savings & investments	23,942
Total other nonfarm expenditures	123,299
Total cash family living investment & nonfarm capital purch	193,684

Operator and Labor Information
North Dakota Farm Business Management Education Program
Region 3 - South Central North Dakota, 2020
(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	72	14	15	15
Operator Information				
Average number of operators	1.2	1.2	1.1	1.5
Average age of operators	47.5	49.5	52.2	43.9
Average number of years farming	23.3	22.2	27.9	22.9
Results Per Operator				
Working capital	513,113	34,369	473,299	1,244,606
Total assets (market)	4,320,760	3,257,930	3,294,951	7,036,266
Total liabilities	1,249,213	976,989	556,061	1,833,222
Net worth (market)	3,071,547	2,280,941	2,738,890	5,203,044
Net worth excl deferred liabs	3,071,547	2,280,941	2,738,890	5,203,044
Gross farm income	1,036,102	600,573	681,020	1,707,886
Total farm expense	868,831	688,190	559,746	1,294,373
Net farm income from operations	167,270	-87,616	121,274	413,513
Net nonfarm income	32,516	45,884	29,596	33,565
Family living & tax withdrawals	80,872	86,003	59,612	86,496
Total acres owned	896.7	727.2	975.2	1,150.0
Total crop acres	2,402.4	1,145.1	1,899.7	4,156.1
Crop acres owned	561.7	240.0	662.2	885.8
Crop acres cash rented	1,804.9	880.2	1,208.9	3,228.1
Crop acres share rented	35.8	24.8	28.6	42.2
Total pasture acres	309.1	325.1	185.0	240.0
Labor Analysis				
Number of farms	72	14	15	15
Total unpaid labor hours	2,193	1,936	1,960	3,153
Total hired labor hours	2,149	1,550	443	4,697
Total labor hours per farm	4,342	3,486	2,403	7,850
Unpaid hours per operator	1,836	1,594	1,838	2,057
Value of farm production / hour	274.72	195.10	297.23	329.54
Net farm income / unpaid hour	91.12	-54.96	66.00	201.07
Average hourly hired labor wage	27.91	25.45	30.32	23.06
Partnerships & LLCs				
Number of farms	8	1	1	4

Nonfarm Summary
North Dakota Farm Business Management Education Program
Region 3 - South Central North Dakota, 2020
(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	72	14	15	15
Nonfarm Income				
Personal wages & salary	22,869	19,567	22,119	33,376
Net nonfarm business income	3,159	9,747	1,263	8,061
Personal rental income	579	1,893	-	467
Personal interest income	1,111	19	662	4,615
Personal cash dividends	234	-	143	953
Tax refunds	1,233	1,801	835	1,133
Other nonfarm income	9,652	22,690	6,548	2,863
Total nonfarm income	38,839	55,717	31,569	51,467
Gifts and inheritances	4,382	1,301	17,146	2,389

Financial Summary
North Dakota Farm Business Management Education Program
Region 3 - South Central North Dakota, 2020
(Farms Sorted By Gross Farm Income)

	<u>Avg. Of All Farms</u>	<u>100,001 - 250,000</u>	<u>250,001 - 500,000</u>	<u>500,001 - 1,000,000</u>	<u>1,000,001- 2,000,000</u>	<u>Over 2,000,000</u>
Number of farms	72	8	10	26	15	12
Income Statement						
Gross cash farm income	1,346,336	178,813	407,175	768,872	1,423,230	4,170,778
Total cash farm expense	954,625	134,597	284,276	582,910	943,092	2,955,124
Net cash farm income	391,711	44,216	122,899	185,962	480,139	1,215,654
Inventory change	-67,317	16,834	39,364	36,725	-168,650	-317,786
Depreciation	-124,599	-8,553	-30,187	-68,226	-155,506	-374,062
Net farm income from operations	199,795	52,497	132,076	154,461	155,982	523,806
Gain or loss on capital sales	-354	-2,929	-	416	-2,992	2,668
Average net farm income	199,441	49,569	132,076	154,877	152,990	526,474
Median net farm income	132,254	46,589	110,698	137,886	143,981	466,656
Profitability (cost)						
Rate of return on assets	4.6 %	4.5 %	8.4 %	6.2 %	3.4 %	4.2 %
Rate of return on equity	5.1 %	10.0 %	10.7 %	8.1 %	2.9 %	4.4 %
Operating profit margin	14.6 %	17.3 %	26.7 %	17.6 %	11.0 %	13.4 %
Asset turnover rate	31.9 %	25.9 %	31.7 %	35.5 %	30.9 %	31.4 %
Profitability (market)						
Rate of return on assets	4.6 %	3.7 %	7.6 %	7.6 %	2.6 %	3.9 %
Rate of return on equity	5.0 %	4.9 %	8.6 %	9.2 %	2.0 %	3.9 %
Operating profit margin	18.3 %	20.4 %	32.1 %	31.5 %	11.7 %	13.8 %
Asset turnover rate	25.3 %	18.1 %	23.5 %	24.1 %	22.4 %	28.3 %
Liquidity & Repayment (end of year)						
Current assets	1,181,203	197,703	388,798	596,086	999,398	4,085,886
Current liabilities	568,319	109,175	145,314	295,413	503,795	1,943,299
Current ratio	2.08	1.81	2.68	2.02	1.98	2.10
Working capital	612,885	88,528	243,483	300,673	495,603	2,142,587
Change in working capital	21,092	52,477	89,310	96,035	-38,803	-147,721
Working capital to gross inc	49.5 %	41.2 %	54.6 %	38.9 %	40.1 %	58.2 %
Term debt coverage ratio	2.46	1.30	2.68	2.48	1.75	2.99
Replacement coverage ratio	1.56	1.17	1.94	1.65	1.07	1.78
Term debt to EBITDA	2.21	6.17	1.84	2.21	2.67	1.86
Solvency (end of year at cost)						
Number of farms	72	8	10	26	15	12
Total assets	4,127,437	905,723	1,580,790	2,358,912	4,575,960	11,897,904
Total liabilities	1,492,116	651,196	524,932	910,743	1,635,934	4,037,142
Net worth	2,635,321	254,528	1,055,858	1,448,169	2,940,026	7,860,762
Net worth change	153,991	43,699	114,664	139,593	70,367	407,338
Farm debt to asset ratio	38 %	74 %	35 %	41 %	39 %	35 %
Total debt to asset ratio	36 %	72 %	33 %	39 %	36 %	34 %
Change in earned net worth %	6 %	21 %	12 %	11 %	2 %	5 %
Solvency (end of year at market)						
Number of farms	72	8	10	26	15	12
Total assets	5,160,908	1,249,476	2,086,650	3,425,758	6,153,177	13,158,340
Total liabilities	1,492,116	651,196	524,932	910,743	1,635,934	4,037,142
Net worth	3,668,792	598,280	1,561,718	2,515,015	4,517,244	9,121,199
Total net worth change	202,208	49,812	138,827	242,531	93,069	420,322
Farm debt to asset ratio	30 %	52 %	26 %	28 %	28 %	31 %
Total debt to asset ratio	29 %	52 %	25 %	27 %	27 %	31 %
Change in total net worth %	6 %	9 %	10 %	11 %	2 %	5 %
Nonfarm Information						
Net nonfarm income	38,839	40,380	51,332	29,745	49,946	30,578
Farms reporting living expenses	7	1	1	2	2	1
Total family living expense	70,385	-	-	-	-	-
Total living, invest, cap. purch	193,684	-	-	-	-	-
Crop Acres						
Total crop acres	2,870	420	1,161	1,827	2,741	8,552
Total crop acres owned	671	86	406	535	737	1,524
Total crop acres cash rented	2,156	300	719	1,259	1,968	6,947
Total crop acres share rented	43	34	36	32	36	81
Machinery value per crop acre	405	187	359	423	468	384

Financial Summary
North Dakota Farm Business Management Education Program
Region 3 - South Central North Dakota, 2020
(Farms Sorted By Age of Operator)

	<u>Avg. Of All Farms</u>	<u>Less Than 31</u>	<u>31 - 40</u>	<u>41 - 50</u>	<u>51 - 60</u>	<u>Over 60</u>
Number of farms	72	11	12	9	21	19
Income Statement						
Gross cash farm income	1,346,336	875,738	791,672	1,460,166	1,749,252	1,469,854
Total cash farm expense	954,625	654,456	572,310	1,138,842	1,276,153	927,234
Net cash farm income	391,711	221,282	219,362	321,324	473,099	542,620
Inventory change	-67,317	66,261	33,237	-80,127	-129,474	-133,391
Depreciation	-124,599	-57,186	-51,428	-112,923	-143,705	-194,256
Net farm income from operations	199,795	230,357	201,171	128,274	199,920	214,973
Gain or loss on capital sales	-354	2,294	697	-83	10	-3,081
Average net farm income	199,441	232,650	201,867	128,191	199,930	211,892
Median net farm income	132,254	109,112	147,441	68,635	147,139	134,652
Profitability (cost)						
Rate of return on assets	4.6 %	11.6 %	9.2 %	3.0 %	4.8 %	2.7 %
Rate of return on equity	5.1 %	21.0 %	14.8 %	2.3 %	5.4 %	2.6 %
Operating profit margin	14.6 %	21.1 %	23.1 %	7.9 %	14.2 %	12.1 %
Asset turnover rate	31.9 %	54.7 %	39.8 %	38.0 %	33.9 %	22.5 %
Profitability (market)						
Rate of return on assets	4.6 %	12.1 %	9.4 %	3.8 %	3.5 %	3.7 %
Rate of return on equity	5.0 %	20.7 %	14.0 %	4.0 %	3.1 %	3.8 %
Operating profit margin	18.3 %	23.7 %	27.0 %	11.9 %	14.1 %	21.1 %
Asset turnover rate	25.3 %	51.0 %	34.9 %	32.2 %	25.1 %	17.7 %
Liquidity & Repayment (end of year)						
Current assets	1,181,203	810,292	648,908	1,108,741	1,129,943	1,823,109
Current liabilities	568,319	468,306	278,565	620,991	815,123	511,490
Current ratio	2.08	1.73	2.33	1.79	1.39	3.56
Working capital	612,885	341,986	370,343	487,750	314,820	1,311,618
Change in working capital	21,092	92,857	89,495	35,316	52,234	-104,813
Working capital to gross inc	49.5 %	35.7 %	47.2 %	36.3 %	20.6 %	100.2 %
Term debt coverage ratio	2.46	4.24	2.75	1.56	1.64	4.16
Replacement coverage ratio	1.56	3.43	2.11	1.04	1.25	1.57
Term debt to EBITDA	2.21	1.54	2.49	3.56	2.98	1.09
Solvency (end of year at cost)						
Number of farms	72	11	12	9	21	19
Total assets	4,127,437	2,017,011	2,215,270	3,872,267	4,676,710	6,070,727
Total liabilities	1,492,116	1,084,166	1,066,815	1,866,444	2,222,085	1,012,788
Net worth	2,635,321	932,845	1,148,455	2,005,823	2,454,625	5,057,939
Net worth change	153,991	224,882	199,299	53,576	134,570	153,365
Farm debt to asset ratio	38 %	54 %	49 %	52 %	51 %	17 %
Total debt to asset ratio	36 %	54 %	48 %	48 %	48 %	17 %
Change in earned net worth %	6 %	32 %	21 %	3 %	6 %	3 %
Solvency (end of year at market)						
Number of farms	72	11	12	9	21	19
Total assets	5,160,908	2,163,359	2,531,167	4,571,726	6,203,521	7,683,943
Total liabilities	1,492,116	1,084,166	1,066,815	1,866,444	2,222,085	1,012,788
Net worth	3,668,792	1,079,193	1,464,351	2,705,283	3,981,436	6,671,156
Total net worth change	202,208	249,320	230,201	111,987	139,749	269,023
Farm debt to asset ratio	30 %	51 %	43 %	44 %	38 %	13 %
Total debt to asset ratio	29 %	50 %	42 %	41 %	36 %	13 %
Change in total net worth %	6 %	30 %	19 %	4 %	4 %	4 %
Nonfarm Information						
Net nonfarm income	38,839	34,666	46,981	33,232	34,019	44,094
Farms reporting living expenses	7	-	1	-	1	5
Total family living expense	70,385	-	-	-	-	65,757
Total living, invest, cap. purch	193,684	-	-	-	-	209,338
Crop Acres						
Total crop acres	2,870	2,028	2,043	3,235	3,513	2,995
Total crop acres owned	671	141	428	564	968	853
Total crop acres cash rented	2,156	1,887	1,587	2,641	2,497	2,064
Total crop acres share rented	43	-	28	30	47	78
Machinery value per crop acre	405	250	319	364	408	520

Financial Summary
North Dakota Farm Business Management Education Program
Region 3 - South Central North Dakota, 2020
(Farms Sorted By Farm Type)

	<u>Avg. Of All Farms</u>	<u>Crop</u>	<u>Beef</u>	<u>Other</u>
Number of farms	72	51	8	8
Income Statement				
Gross cash farm income	1,346,336	1,564,262	420,031	654,298
Total cash farm expense	954,625	1,076,137	342,913	444,098
Net cash farm income	391,711	488,125	77,118	210,199
Inventory change	-67,317	-80,087	29,161	-125,657
Depreciation	-124,599	-151,174	-21,467	-85,720
Net farm income from operations	199,795	256,863	84,812	-1,177
Gain or loss on capital sales	-354	1,333	-6,115	-7,206
Average net farm income	199,441	258,196	78,698	-8,383
Median net farm income	132,254	149,985	64,308	34,399
Profitability (cost)				
Rate of return on assets	4.6 %	5.2 %	4.5 %	-0.8 %
Rate of return on equity	5.1 %	5.9 %	5.5 %	-4.0 %
Operating profit margin	14.6 %	15.9 %	21.0 %	-3.4 %
Asset turnover rate	31.9 %	32.4 %	21.2 %	23.5 %
Profitability (market)				
Rate of return on assets	4.6 %	5.3 %	3.8 %	0.3 %
Rate of return on equity	5.0 %	5.8 %	4.1 %	-0.7 %
Operating profit margin	18.3 %	19.9 %	24.9 %	2.8 %
Asset turnover rate	25.3 %	26.4 %	15.2 %	12.5 %
Liquidity & Repayment (end of year)				
Current assets	1,181,203	1,483,301	364,036	353,773
Current liabilities	568,319	685,127	213,511	191,263
Current ratio	2.08	2.17	1.70	1.85
Working capital	612,885	798,174	150,524	162,509
Change in working capital	21,092	9,481	97,657	-81,119
Working capital to gross inc	49.5 %	55.9 %	33.2 %	29.8 %
Term debt coverage ratio	2.46	2.74	2.10	0.49
Replacement coverage ratio	1.56	1.68	1.54	0.27
Term debt to EBITDA	2.21	1.90	3.27	5.27
Solvency (end of year at cost)				
Number of farms	72	51	8	8
Total assets	4,127,437	4,786,942	1,740,054	2,733,527
Total liabilities	1,492,116	1,659,916	716,288	868,128
Net worth	2,635,321	3,127,026	1,023,765	1,865,399
Net worth change	153,991	205,770	73,608	-44,552
Farm debt to asset ratio	38 %	36 %	44 %	39 %
Total debt to asset ratio	36 %	35 %	41 %	32 %
Change in earned net worth %	6 %	7 %	8 %	-2 %
Solvency (end of year at market)				
Number of farms	72	51	8	8
Total assets	5,160,908	5,835,842	2,370,286	4,653,480
Total liabilities	1,492,116	1,659,916	716,288	868,128
Net worth	3,668,792	4,175,926	1,653,998	3,785,352
Total net worth change	202,208	266,715	83,720	-10,947
Farm debt to asset ratio	30 %	29 %	32 %	20 %
Total debt to asset ratio	29 %	28 %	30 %	19 %
Change in total net worth %	6 %	7 %	5 %	0 %
Nonfarm Information				
Net nonfarm income	38,839	33,561	32,341	79,207
Farms reporting living expenses	7	4	1	2
Total family living expense	70,385	-	-	-
Total living, invest, cap. purch	193,684	-	-	-
Crop Acres				
Total crop acres	2,870	3,617	671	639
Total crop acres owned	671	820	196	424
Total crop acres cash rented	2,156	2,745	457	215
Total crop acres share rented	43	52	19	-
Machinery value per crop acre	405	414	521	399

EXPLANATORY NOTES FOR CROPS TABLES

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

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

Coronavirus Food Assistance Program 2, a 2020 USDA FSA program that provides producers with financial assistance that gives them the ability to absorb some of the increased marketing costs associated with the COVID-19 pandemic, are included under "Other crop income per acre." "Government payments" are ARC and PLC payments as well as Coronavirus Food Assistance Program 1.

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

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

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

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

Crop Enterprise Analysis
North Dakota Farm Business Management Education Program
Region 3 - South Central North Dakota, 2020
(Farms Sorted By Net Return)

Barley on Cash Rent

	<u>Avg. Of All Farms</u>
Number of farms	6
Acres	667.57
Yield per acre (bu.)	67.15
Operators share of yield %	100.00
Value per bu.	4.85
Total product return per acre	325.64
Crop insurance per acre	22.60
Other crop income per acre	32.95
Gross return per acre	381.19
Direct Expenses	
Seed and plants	21.05
Fertilizer	45.30
Crop chemicals	30.59
Crop insurance	17.41
Fuel & oil	14.98
Repairs	29.21
Custom hire	3.31
Land rent	68.32
Operating interest	4.78
Miscellaneous	0.62
Total direct expenses per acre	235.56
Return over direct exp per acre	145.63
Overhead Expenses	
Custom hire	2.24
Hired labor	20.50
Machinery leases	8.10
Building leases	0.57
Farm insurance	5.45
Utilities	5.94
Dues & professional fees	4.99
Interest	0.64
Mach & bldg depreciation	50.36
Miscellaneous	4.65
Total overhead expenses per acre	103.44
Total dir & ovhd expenses per acre	339.00
Net return per acre	42.18
Government payments	22.93
Net return with govt pmts	65.11
Labor & management charge	23.71
Net return over lbr & mgt	41.41
Cost of Production	
Total direct expense per bu.	3.51
Total dir & ovhd exp per bu.	5.05
Less govt & other income	3.88
With labor & management	4.23
Net value per unit	4.85
Machinery cost per acre	102.66
Est. labor hours per acre	1.51

Crop Enterprise Analysis
North Dakota Farm Business Management Education Program
Region 3 - South Central North Dakota, 2020
(Farms Sorted By Net Return)

Beans, Pinto on Cash Rent

	<u>Avg. Of All Farms</u>
Number of farms	8
Acres	842.35
Yield per acre (cwt.)	17.45
Operators share of yield %	100.00
Value per cwt.	27.62
Total product return per acre	482.00
Crop insurance per acre	43.79
Other crop income per acre	21.67
Gross return per acre	547.46
Direct Expenses	
Seed and plants	60.45
Fertilizer	45.39
Crop chemicals	63.68
Crop insurance	38.41
Fuel & oil	17.26
Repairs	41.92
Custom hire	1.58
Land rent	70.86
Utilities	0.24
Operating interest	8.43
Miscellaneous	2.45
Total direct expenses per acre	350.65
Return over direct exp per acre	196.82
Overhead Expenses	
Custom hire	5.17
Hired labor	21.41
Machinery leases	6.89
Building leases	1.08
Farm insurance	4.84
Utilities	4.70
Dues & professional fees	2.65
Interest	2.39
Mach & bldg depreciation	47.74
Miscellaneous	6.24
Total overhead expenses per acre	103.12
Total dir & ovhd expenses per acre	453.76
Net return per acre	93.70
Government payments	17.58
Net return with govt pmts	111.28
Labor & management charge	33.33
Net return over lbr & mgt	77.95
Cost of Production	
Total direct expense per cwt.	20.09
Total dir & ovhd exp per cwt.	26.00
Less govt & other income	21.24
With labor & management	23.15
Net value per unit	27.62
Machinery cost per acre	118.58
Est. labor hours per acre	1.63

Crop Enterprise Analysis
North Dakota Farm Business Management Education Program
Region 3 - South Central North Dakota, 2020
(Farms Sorted By Net Return)

Corn on Owned Land

	<u>Avg. Of All Farms</u>
Number of farms	16
Acres	129.60
Yield per acre (bu.)	102.66
Operator's share of yield %	100.00
Value per bu.	3.88
Total product return per acre	398.69
Hedging gains/losses per acre	0.20
Crop insurance per acre	19.68
Other crop income per acre	46.66
Gross return per acre	465.23
Direct Expenses	
Seed and plants	78.45
Fertilizer	94.86
Crop chemicals	24.14
Crop insurance	17.60
Fuel & oil	17.20
Repairs	49.04
Custom hire	2.95
Machinery leases	0.95
Operating interest	12.44
Miscellaneous	0.88
Total direct expenses per acre	298.50
Return over direct exp per acre	166.73
Overhead Expenses	
Custom hire	5.45
Hired labor	18.58
Machinery leases	6.22
Building leases	1.34
RE & pers. property taxes	9.18
Farm insurance	6.02
Utilities	7.01
Dues & professional fees	2.73
Interest	61.99
Mach & bldg depreciation	45.49
Miscellaneous	5.42
Total overhead expenses per acre	169.41
Total dir & ovhd expenses per acre	467.91
Net return per acre	-2.68
Government payments	21.06
Net return with govt pmts	18.38
Labor & management charge	36.76
Net return over lbr & mgt	-18.39
Cost of Production	
Total direct expense per bu.	2.91
Total dir & ovhd exp per bu.	4.56
Less govt & other income	3.70
With labor & management	4.06
Net value per unit	3.89
Machinery cost per acre	127.46
Est. labor hours per acre	1.87

Crop Enterprise Analysis
North Dakota Farm Business Management Education Program
Region 3 - South Central North Dakota, 2020
(Farms Sorted By Net Return)

Corn on Cash Rent

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	25	5	5	5
Acres	520.62	194.20	1,211.66	400.70
Yield per acre (bu.)	116.21	93.71	110.49	155.48
Operators share of yield %	100.00	100.00	100.00	100.00
Value per bu.	4.10	3.51	4.03	4.31
Other product return per acre	0.44	-	-	2.87
Total product return per acre	477.06	328.80	445.57	672.39
Hedging gains/losses per acre	0.39	-	0.85	-
Crop insurance per acre	25.89	-	20.94	-
Other crop income per acre	46.84	45.90	43.79	40.42
Gross return per acre	550.19	374.69	511.16	712.81
Direct Expenses				
Seed and plants	79.50	84.09	80.05	90.33
Fertilizer	89.48	88.88	84.55	90.18
Crop chemicals	21.59	19.11	19.68	17.43
Crop insurance	15.12	10.03	12.32	13.91
Drying expense	1.75	0.01	3.54	-
Storage	1.83	-	-	11.90
Fuel & oil	19.28	16.54	21.47	14.52
Repairs	47.85	72.02	55.99	26.22
Custom hire	4.80	0.06	0.12	26.07
Land rent	75.96	79.11	79.53	68.11
Machinery leases	1.89	0.20	3.85	-
Operating interest	11.36	14.21	9.67	9.10
Miscellaneous	0.79	-	0.21	-
Total direct expenses per acre	371.18	384.25	370.98	367.76
Return over direct exp per acre	179.01	-9.55	140.17	345.05
Overhead Expenses				
Custom hire	3.20	3.56	0.29	4.15
Hired labor	28.00	5.85	41.74	14.74
Machinery leases	10.08	6.74	10.16	2.72
Building leases	0.67	0.01	0.19	-
Farm insurance	5.55	7.17	5.51	4.05
Utilities	7.59	15.32	8.06	5.58
Dues & professional fees	2.01	8.64	0.60	1.45
Interest	3.16	3.70	3.25	3.45
Mach & bldg depreciation	48.63	45.09	46.09	61.97
Miscellaneous	5.36	6.57	5.03	8.11
Total overhead expenses per acre	114.26	102.64	120.92	106.23
Total dir & ovhd expenses per acre	485.44	486.89	491.90	473.99
Net return per acre	64.76	-112.20	19.26	238.82
Government payments	20.80	25.00	20.82	22.14
Net return with govt pmts	85.56	-87.19	40.07	260.96
Labor & management charge	38.31	41.11	34.10	47.49
Net return over lbr & mgt	47.25	-128.31	5.97	213.48
Cost of Production				
Total direct expense per bu.	3.19	4.10	3.36	2.37
Total dir & ovhd exp per bu.	4.18	5.20	4.45	3.05
Less govt & other income	3.37	4.44	3.67	2.63
With labor & management	3.69	4.88	3.98	2.93
Net value per unit	4.10	3.51	4.04	4.31
Machinery cost per acre	132.91	143.93	133.28	133.14
Est. labor hours per acre	1.76	1.51	1.69	1.98

Crop Enterprise Analysis
North Dakota Farm Business Management Education Program
Region 3 - South Central North Dakota, 2020
(Farms Sorted By Net Return)

Corn Silage on Owned Land

	<u>Avg. Of All Farms</u>
Number of farms	5
Acres	43.90
Yield per acre (ton)	17.95
Operators share of yield %	100.00
Value per ton	29.25
Total product return per acre	525.09
Other crop income per acre	21.04
Gross return per acre	546.13
Direct Expenses	
Seed and plants	72.42
Fertilizer	88.09
Crop chemicals	36.81
Crop insurance	2.31
Fuel & oil	16.29
Repairs	54.15
Custom hire	62.23
Operating interest	4.61
Miscellaneous	0.21
Total direct expenses per acre	337.12
Return over direct exp per acre	209.01
Overhead Expenses	
Custom hire	3.92
Hired labor	9.68
Machinery leases	2.23
RE & pers. property taxes	8.33
Farm insurance	5.11
Utilities	4.41
Dues & professional fees	0.62
Interest	19.44
Mach & bldg depreciation	29.33
Miscellaneous	5.94
Total overhead expenses per acre	89.02
Total dir & ovhd expenses per acre	426.14
Net return per acre	119.99
Government payments	20.48
Net return with govt pmts	140.47
Labor & management charge	25.74
Net return over lbr & mgt	114.73
Cost of Production	
Total direct expense per ton	18.78
Total dir & ovhd exp per ton	23.74
Less govt & other income	21.43
With labor & management	22.86
Net value per unit	29.25
Machinery cost per acre	168.74
Est. labor hours per acre	1.98

Crop Enterprise Analysis
North Dakota Farm Business Management Education Program
Region 3 - South Central North Dakota, 2020
(Farms Sorted By Net Return)

CRP on Owned Land

	<u>Avg. Of All Farms</u>
Number of farms	10
Acres	160.21
Gross return per acre	62.53
Direct Expenses	
Repairs	16.96
Miscellaneous	0.96
Total direct expenses per acre	17.93
Return over direct exp per acre	44.61
Overhead Expenses	
RE & pers. property taxes	6.52
Farm insurance	1.19
Interest	19.37
Mach & bldg depreciation	2.66
Miscellaneous	1.70
Total overhead expenses per acre	31.44
Total dir & ovhd expenses per acre	49.37
Net return per acre	13.17
Government payments	-
Net return with govt pmts	13.17
Labor & management charge	1.45
Net return over lbr & mgt	11.72
Net value per unit	1.00
Machinery cost per acre	19.98
Est. labor hours per acre	0.07

Crop Enterprise Analysis
North Dakota Farm Business Management Education Program
Region 3 - South Central North Dakota, 2020
(Farms Sorted By Net Return)

Hay, Alfalfa on Owned Land

	<u>Avg. Of All Farms</u>
Number of farms	5
Acres	111.40
Yield per acre (ton)	2.87
Operators share of yield %	100.00
Value per ton	69.90
Total product return per acre	200.85
Other crop income per acre	19.52
Gross return per acre	220.37
Direct Expenses	
Fertilizer	1.53
Fuel & oil	16.08
Repairs	52.49
Custom hire	0.70
Operating interest	5.21
Miscellaneous	0.24
Total direct expenses per acre	76.25
Return over direct exp per acre	144.12
Overhead Expenses	
Custom hire	1.05
Hired labor	26.29
Machinery leases	8.71
RE & pers. property taxes	9.47
Farm insurance	5.41
Utilities	5.55
Dues & professional fees	1.08
Interest	47.96
Mach & bldg depreciation	34.15
Miscellaneous	2.45
Total overhead expenses per acre	142.13
Total dir & ovhd expenses per acre	218.38
Net return per acre	1.99
Government payments	5.90
Net return with govt pmts	7.88
Labor & management charge	26.83
Net return over lbr & mgt	-18.95
Cost of Production	
Total direct expense per ton	26.54
Total dir & ovhd exp per ton	76.00
Less govt & other income	67.15
With labor & management	76.49
Net value per unit	69.90
Machinery cost per acre	109.60
Est. labor hours per acre	1.41

Crop Enterprise Analysis
North Dakota Farm Business Management Education Program
Region 3 - South Central North Dakota, 2020
(Farms Sorted By Net Return)

Hay, Alfalfa on Cash Rent

	<u>Avg. Of All Farms</u>
Number of farms	6
Acres	86.83
Yield per acre (ton)	2.99
Operators share of yield %	100.00
Value per ton	80.40
Total product return per acre	240.39
Crop insurance per acre	22.69
Other crop income per acre	17.10
Gross return per acre	280.18
Direct Expenses	
Seed and plants	14.72
Fertilizer	2.32
Crop insurance	3.69
Fuel & oil	15.42
Repairs	30.87
Land rent	58.07
Operating interest	2.53
Miscellaneous	4.22
Total direct expenses per acre	131.83
Return over direct exp per acre	148.35
Overhead Expenses	
Custom hire	1.12
Hired labor	18.39
Machinery leases	4.03
Farm insurance	5.32
Utilities	5.53
Dues & professional fees	3.30
Interest	1.67
Mach & bldg depreciation	53.90
Miscellaneous	1.74
Total overhead expenses per acre	95.01
Total dir & ovhd expenses per acre	226.84
Net return per acre	53.34
Government payments	18.21
Net return with govt pmts	71.55
Labor & management charge	23.22
Net return over lbr & mgt	48.33
Cost of Production	
Total direct expense per ton	44.09
Total dir & ovhd exp per ton	75.87
Less govt & other income	56.47
With labor & management	64.23
Net value per unit	80.40
Machinery cost per acre	100.16
Est. labor hours per acre	1.63

Crop Enterprise Analysis
North Dakota Farm Business Management Education Program
Region 3 - South Central North Dakota, 2020
(Farms Sorted By Net Return)

Hay, Grass on Cash Rent

	<u>Avg. Of All Farms</u>
Number of farms	6
Acres	285.50
Yield per acre (ton)	1.13
Operators share of yield %	100.00
Value per ton	74.73
Total product return per acre	84.68
Other crop income per acre	1.48
Gross return per acre	86.15
Direct Expenses	
Seed and plants	2.18
Fertilizer	2.68
Crop chemicals	1.20
Fuel & oil	6.80
Repairs	25.16
Custom hire	1.38
Land rent	20.52
Operating interest	2.29
Miscellaneous	1.54
Total direct expenses per acre	63.75
Return over direct exp per acre	22.40
Overhead Expenses	
Hired labor	8.51
Machinery leases	0.30
Farm insurance	0.95
Utilities	1.42
Dues & professional fees	0.06
Interest	1.17
Mach & bldg depreciation	12.25
Miscellaneous	3.98
Total overhead expenses per acre	28.64
Total dir & ovhd expenses per acre	92.39
Net return per acre	-6.24
Government payments	0.84
Net return with govt pmts	-5.40
Labor & management charge	11.68
Net return over lbr & mgt	-17.07
Cost of Production	
Total direct expense per ton	56.26
Total dir & ovhd exp per ton	81.54
Less govt & other income	79.49
With labor & management	89.80
Net value per unit	74.73
Machinery cost per acre	46.44
Est. labor hours per acre	1.56

Crop Enterprise Analysis
North Dakota Farm Business Management Education Program
Region 3 - South Central North Dakota, 2020
(Farms Sorted By Net Return)

Hay, Small Grain on Owned Land

	<u>Avg. Of All Farms</u>
Number of farms	5
Acres	83.94
Yield per acre (ton)	2.33
Operators share of yield %	100.00
Value per ton	67.07
Total product return per acre	156.20
Other crop income per acre	25.30
Gross return per acre	181.51
Direct Expenses	
Seed and plants	19.53
Fertilizer	32.04
Crop chemicals	6.20
Crop insurance	2.19
Fuel & oil	11.05
Repairs	31.41
Custom hire	4.80
Machinery leases	0.96
Operating interest	3.59
Miscellaneous	1.05
Total direct expenses per acre	112.82
Return over direct exp per acre	68.68
Overhead Expenses	
Custom hire	0.34
Hired labor	7.52
Machinery leases	2.11
Building leases	0.64
RE & pers. property taxes	7.51
Farm insurance	3.63
Utilities	3.23
Dues & professional fees	0.51
Interest	19.86
Mach & bldg depreciation	28.04
Miscellaneous	4.53
Total overhead expenses per acre	77.91
Total dir & ovhd expenses per acre	190.73
Net return per acre	-9.22
Government payments	19.34
Net return with govt pmts	10.11
Labor & management charge	20.20
Net return over lbr & mgt	-10.09
Cost of Production	
Total direct expense per ton	48.45
Total dir & ovhd exp per ton	81.90
Less govt & other income	62.73
With labor & management	71.40
Net value per unit	67.07
Machinery cost per acre	77.66
Est. labor hours per acre	1.26

Crop Enterprise Analysis
North Dakota Farm Business Management Education Program
Region 3 - South Central North Dakota, 2020
(Farms Sorted By Net Return)

Hay, Small Grain on Cash Rent

	<u>Avg. Of All Farms</u>
Number of farms	7
Acres	66.69
Yield per acre (ton)	1.96
Operators share of yield %	100.00
Value per ton	66.39
Total product return per acre	130.39
Other crop income per acre	22.87
Gross return per acre	153.26
Direct Expenses	
Seed and plants	15.32
Fertilizer	29.51
Crop chemicals	10.73
Crop insurance	2.75
Fuel & oil	7.47
Repairs	16.00
Custom hire	5.47
Land rent	40.72
Operating interest	3.11
Miscellaneous	0.22
Total direct expenses per acre	131.30
Return over direct exp per acre	21.96
Overhead Expenses	
Custom hire	1.11
Hired labor	4.72
Machinery leases	2.39
Building leases	0.16
Farm insurance	3.27
Utilities	4.32
Dues & professional fees	0.58
Interest	3.70
Mach & bldg depreciation	17.54
Miscellaneous	4.20
Total overhead expenses per acre	41.99
Total dir & ovhd expenses per acre	173.29
Net return per acre	-20.03
Government payments	24.76
Net return with govt pmts	4.73
Labor & management charge	17.99
Net return over lbr & mgt	-13.26
Cost of Production	
Total direct expense per ton	66.86
Total dir & ovhd exp per ton	88.24
Less govt & other income	63.99
With labor & management	73.15
Net value per unit	66.39
Machinery cost per acre	51.67
Est. labor hours per acre	0.94

Crop Enterprise Analysis
North Dakota Farm Business Management Education Program
Region 3 - South Central North Dakota, 2020
(Farms Sorted By Net Return)

Pasture on Owned Land

	<u>Avg. Of All Farms</u>
Number of farms	16
Acres	503.48
Yield per acre (aum)	1.25
Operators share of yield %	100.00
Value per aum	21.73
Total product return per acre	27.09
Other crop income per acre	2.57
Gross return per acre	29.66
Direct Expenses	
Crop chemicals	0.16
Fuel & oil	0.48
Repairs	5.16
Miscellaneous	0.12
Total direct expenses per acre	5.92
Return over direct exp per acre	23.74
Overhead Expenses	
Hired labor	0.47
RE & pers. property taxes	3.78
Farm insurance	1.10
Dues & professional fees	0.21
Interest	14.43
Mach & bldg depreciation	1.13
Miscellaneous	0.99
Total overhead expenses per acre	22.11
Total dir & ovhd expenses per acre	28.03
Net return per acre	1.63
Government payments	-
Net return with govt pmts	1.63
Labor & management charge	0.83
Net return over lbr & mgt	0.80
Cost of Production	
Total direct expense per aum	4.75
Total dir & ovhd exp per aum	22.49
Less govt & other income	20.42
With labor & management	21.09
Net value per unit	21.73
Machinery cost per acre	6.81
Est. labor hours per acre	0.06

Crop Enterprise Analysis
North Dakota Farm Business Management Education Program
Region 3 - South Central North Dakota, 2020
(Farms Sorted By Net Return)

Pasture on Cash Rent

	<u>Avg. Of All Farms</u>
Number of farms	16
Acres	766.65
Yield per acre (aum)	1.43
Operators share of yield %	100.00
Value per aum	23.26
Total product return per acre	33.37
Crop insurance per acre	11.69
Other crop income per acre	0.96
Gross return per acre	46.02
Direct Expenses	
Crop insurance	1.90
Fuel & oil	0.37
Repairs	0.93
Land rent	20.28
Miscellaneous	0.08
Total direct expenses per acre	23.55
Return over direct exp per acre	22.47
Overhead Expenses	
Hired labor	0.39
Mach & bldg depreciation	1.18
Miscellaneous	0.71
Total overhead expenses per acre	2.29
Total dir & ovhd expenses per acre	25.84
Net return per acre	20.18
Government payments	-
Net return with govt pmts	20.18
Labor & management charge	0.73
Net return over lbr & mgt	19.44
Cost of Production	
Total direct expense per aum	16.42
Total dir & ovhd exp per aum	18.01
Less govt & other income	9.19
With labor & management	9.71
Net value per unit	23.26
Machinery cost per acre	2.51
Est. labor hours per acre	0.05

Crop Enterprise Analysis
North Dakota Farm Business Management Education Program
Region 3 - South Central North Dakota, 2020
(Farms Sorted By Net Return)

Prevented Planting on Owned Land

	<u>Avg. Of All Farms</u>
Number of farms	20
Acres	388.25
Yield per acre	-
Operators share of yield %	-
Value per 0	-
Total product return per acre	-
Crop insurance per acre	202.29
Other crop income per acre	4.64
Gross return per acre	206.93
Direct Expenses	
Seed and plants	0.43
Crop chemicals	5.60
Cover crop expense	2.35
Crop insurance	10.72
Fuel & oil	4.42
Repairs	11.98
Custom hire	0.49
Machinery leases	0.32
Operating interest	4.59
Miscellaneous	1.40
Total direct expenses per acre	42.31
Return over direct exp per acre	164.63
Overhead Expenses	
Custom hire	0.40
Hired labor	2.03
Machinery leases	1.56
RE & pers. property taxes	8.27
Farm insurance	5.97
Utilities	4.36
Dues & professional fees	1.60
Interest	38.87
Mach & bldg depreciation	17.33
Miscellaneous	6.83
Total overhead expenses per acre	87.22
Total dir & ovhd expenses per acre	129.53
Net return per acre	77.41
Government payments	24.00
Net return with govt pmts	101.41
Labor & management charge	10.93
Net return over lbr & mgt	90.48
Net value per unit	-
Machinery cost per acre	38.94
Est. labor hours per acre	0.40

Crop Enterprise Analysis
North Dakota Farm Business Management Education Program
Region 3 - South Central North Dakota, 2020
(Farms Sorted By Net Return)

Prevented Planting on Cash Rent

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	26	5	5	6
Acres	585.95	442.49	945.74	1,022.66
Gross return per acre	223.38	148.84	221.07	258.62
Direct Expenses				
Seed and plants	1.55	-	2.05	1.45
Crop chemicals	6.02	8.81	5.46	5.53
Cover crop expense	0.77	-	-	1.75
Crop insurance	19.09	12.63	18.95	23.20
Fuel & oil	2.98	2.43	3.43	2.26
Repairs	6.96	5.23	6.08	8.31
Custom hire	2.25	1.95	0.29	4.21
Land rent	76.10	64.63	77.89	79.16
Machinery leases	0.50	-	1.59	0.03
Operating interest	3.03	0.02	7.77	0.97
Miscellaneous	0.30	-	0.95	-
Total direct expenses per acre	119.56	95.70	124.47	126.88
Return over direct exp per acre	103.82	53.15	96.60	131.74
Overhead Expenses				
Custom hire	0.62	-	-	1.28
Hired labor	3.98	1.56	2.17	7.24
Machinery leases	1.18	0.99	2.01	0.45
Farm insurance	5.20	5.00	6.39	4.64
Utilities	2.71	3.55	3.02	0.88
Dues & professional fees	2.13	7.09	1.01	1.46
Interest	2.97	3.36	5.89	0.83
Mach & bldg depreciation	9.88	10.66	13.46	6.11
Miscellaneous	6.57	6.21	5.56	6.45
Total overhead expenses per acre	35.23	38.43	39.49	29.34
Total dir & ovhd expenses per acre	154.79	134.13	163.96	156.22
Net return per acre	68.59	14.71	57.11	102.41
Government payments	23.44	29.63	23.05	20.42
Net return with govt pmts	92.03	44.34	80.15	122.83
Labor & management charge	8.22	7.72	9.19	6.85
Net return over lbr & mgt	83.81	36.62	70.96	115.97
Net value per unit	1.00	-	-	-
Machinery cost per acre	26.47	23.37	31.90	23.04
Est. labor hours per acre	0.34	0.39	0.34	0.28

Crop Enterprise Analysis
North Dakota Farm Business Management Education Program
Region 3 - South Central North Dakota, 2020
(Farms Sorted By Net Return)

Soybeans on Owned Land

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	27	5	6	6
Acres	509.17	696.52	464.95	585.80
Yield per acre (bu.)	32.67	29.55	34.29	36.43
Operators share of yield %	100.00	100.00	100.00	100.00
Value per bu.	10.26	9.08	9.97	11.97
Total product return per acre	335.24	268.24	341.80	436.06
Hedging gains/losses per acre	0.01	-	-	-
Crop insurance per acre	7.38	1.05	10.88	17.47
Other crop income per acre	21.62	21.85	19.11	26.69
Gross return per acre	364.25	291.13	371.79	480.22
Direct Expenses				
Seed and plants	58.09	59.38	59.60	51.16
Fertilizer	7.33	-	16.90	2.21
Crop chemicals	29.68	27.97	30.95	23.72
Crop insurance	11.80	10.84	12.89	10.83
Fuel & oil	11.30	11.50	14.54	10.34
Repairs	26.03	25.81	31.41	24.69
Custom hire	2.76	1.70	3.31	5.71
Machinery leases	0.82	1.58	0.21	1.33
Operating interest	4.61	3.63	2.09	11.52
Miscellaneous	1.83	3.03	0.48	2.08
Total direct expenses per acre	154.23	145.44	172.37	143.60
Return over direct exp per acre	210.01	145.69	199.42	336.62
Overhead Expenses				
Custom hire	0.34	0.55	0.54	0.38
Hired labor	7.19	8.20	4.30	6.23
Machinery leases	2.15	1.86	2.07	3.43
Building leases	0.44	1.17	-	0.51
RE & pers. property taxes	8.57	8.66	9.60	8.04
Farm insurance	5.56	5.95	6.82	5.64
Utilities	4.92	6.98	7.43	3.17
Dues & professional fees	3.12	8.67	2.27	0.56
Interest	36.07	61.49	41.82	38.10
Mach & bldg depreciation	42.70	47.92	45.90	36.43
Miscellaneous	6.93	6.29	10.86	5.04
Total overhead expenses per acre	117.99	157.74	131.59	107.51
Total dir & ovhd expenses per acre	272.22	303.18	303.96	251.11
Net return per acre	92.02	-12.05	67.83	229.11
Government payments	28.42	26.95	29.18	27.67
Net return with govt pmts	120.44	14.90	97.01	256.78
Labor & management charge	24.21	21.84	29.01	22.76
Net return over lbr & mgt	96.23	-6.94	68.01	234.02
Cost of Production				
Total direct expense per bu.	4.72	4.92	5.03	3.94
Total dir & ovhd exp per bu.	8.33	10.26	8.86	6.89
Less govt & other income	6.58	8.57	7.14	4.92
With labor & management	7.32	9.31	7.98	5.55
Net value per unit	10.26	9.08	9.97	11.97
Machinery cost per acre	85.14	90.19	96.95	84.22
Est. labor hours per acre	1.06	0.96	1.14	0.95

Crop Enterprise Analysis
North Dakota Farm Business Management Education Program
Region 3 - South Central North Dakota, 2020
(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	42	8	9	9
Acres	874.55	549.44	1,374.60	643.86
Yield per acre (bu.)	31.34	25.74	31.61	37.90
Operators share of yield %	100.00	100.00	100.00	100.00
Value per bu.	9.84	9.11	9.46	11.42
Total product return per acre	308.34	234.52	298.96	432.71
Hedging gains/losses per acre	0.17	-	0.51	-
Crop insurance per acre	14.99	11.31	5.35	2.07
Other crop income per acre	24.28	31.17	23.10	22.48
Gross return per acre	347.77	277.00	327.91	457.25
Direct Expenses				
Seed and plants	57.30	60.17	61.46	50.69
Fertilizer	9.55	14.43	14.09	6.68
Crop chemicals	26.92	35.36	26.62	24.87
Crop insurance	12.13	9.40	9.52	12.04
Fuel & oil	12.64	13.02	11.78	9.44
Repairs	25.95	30.54	21.80	17.91
Custom hire	1.36	2.60	0.71	2.37
Land rent	66.23	68.54	62.15	65.69
Machinery leases	1.50	-	3.25	1.11
Operating interest	5.04	6.61	2.24	9.48
Miscellaneous	1.27	1.35	1.34	0.79
Total direct expenses per acre	219.89	242.02	214.97	201.07
Return over direct exp per acre	127.88	34.99	112.94	256.19
Overhead Expenses				
Custom hire	0.90	1.70	0.40	0.28
Hired labor	13.06	6.80	17.28	6.14
Machinery leases	4.68	4.89	0.89	4.32
Building leases	0.54	0.35	0.01	0.79
Farm insurance	5.27	5.46	4.81	5.47
Utilities	4.91	6.02	3.98	4.08
Dues & professional fees	2.79	0.83	2.05	1.03
Interest	3.08	2.72	2.27	4.36
Mach & bldg depreciation	39.74	38.54	42.43	40.57
Miscellaneous	5.91	13.38	5.22	5.51
Total overhead expenses per acre	80.88	80.69	79.34	72.56
Total dir & ovhd expenses per acre	300.78	322.70	294.31	273.63
Net return per acre	47.00	-45.70	33.60	183.62
Government payments	24.94	20.87	23.68	29.91
Net return with govt pmts	71.93	-24.83	57.29	213.54
Labor & management charge	24.38	27.26	21.60	24.68
Net return over lbr & mgt	47.56	-52.09	35.69	188.86
Cost of Production				
Total direct expense per bu.	7.02	9.40	6.80	5.30
Total dir & ovhd exp per bu.	9.60	12.54	9.31	7.22
Less govt & other income	7.54	10.08	7.65	5.78
With labor & management	8.32	11.14	8.33	6.43
Net value per unit	9.84	9.11	9.47	11.42
Machinery cost per acre	85.06	88.48	78.68	77.61
Est. labor hours per acre	1.12	1.17	1.15	1.03

Crop Enterprise Analysis
North Dakota Farm Business Management Education Program
Region 3 - South Central North Dakota, 2020
(Farms Sorted By Net Return)

Soybeans on Share Rent

	<u>Avg. Of All Farms</u>
Number of farms	8
Acres	169.96
Yield per acre (bu.)	36.64
Operators share of yield %	59.55
Value per bu.	8.89
Total product return per acre	193.97
Crop insurance per acre	12.52
Other crop income per acre	15.38
Gross return per acre	221.87
Direct Expenses	
Seed and plants	39.80
Fertilizer	3.24
Crop chemicals	24.89
Crop insurance	6.94
Fuel & oil	12.80
Repairs	25.31
Custom hire	3.82
Operating interest	3.37
Miscellaneous	0.24
Total direct expenses per acre	120.40
Return over direct exp per acre	101.47
Overhead Expenses	
Custom hire	0.06
Hired labor	7.59
Machinery leases	1.16
Building leases	0.21
Farm insurance	4.73
Utilities	4.84
Dues & professional fees	2.32
Interest	2.18
Mach & bldg depreciation	40.15
Miscellaneous	7.30
Total overhead expenses per acre	70.54
Total dir & ovhd expenses per acre	190.93
Net return per acre	30.93
Government payments	19.58
Net return with govt pmts	50.52
Labor & management charge	32.06
Net return over lbr & mgt	18.46
Cost of Production	
Total direct expense per bu.	5.52
Total dir & ovhd exp per bu.	8.75
Less govt & other income	6.57
With labor & management	8.04
Net value per unit	8.89
Machinery cost per acre	81.21
Est. labor hours per acre	1.62

Crop Enterprise Analysis
North Dakota Farm Business Management Education Program
Region 3 - South Central North Dakota, 2020
(Farms Sorted By Net Return)

Sunflowers on Cash Rent

	<u>Avg. Of All Farms</u>
Number of farms	6
Acres	477.33
Yield per acre (cwt.)	24.02
Operators share of yield %	100.00
Value per cwt.	18.62
Total product return per acre	447.27
Crop insurance per acre	4.07
Other crop income per acre	25.04
Gross return per acre	476.38
Direct Expenses	
Seed and plants	33.15
Fertilizer	37.75
Crop chemicals	40.71
Crop insurance	11.69
Drying expense	2.71
Fuel & oil	15.88
Repairs	23.08
Custom hire	8.92
Land rent	63.61
Machinery leases	0.97
Operating interest	3.26
Miscellaneous	1.09
Total direct expenses per acre	242.82
Return over direct exp per acre	233.56
Overhead Expenses	
Hired labor	8.52
Machinery leases	5.31
Farm insurance	4.13
Utilities	4.02
Dues & professional fees	1.72
Interest	2.84
Mach & bldg depreciation	43.14
Miscellaneous	6.19
Total overhead expenses per acre	75.87
Total dir & ovhd expenses per acre	318.69
Net return per acre	157.69
Government payments	25.18
Net return with govt pmts	182.87
Labor & management charge	28.32
Net return over lbr & mgt	154.54
Cost of Production	
Total direct expense per cwt.	10.11
Total dir & ovhd exp per cwt.	13.27
Less govt & other income	11.01
With labor & management	12.18
Net value per unit	18.62
Machinery cost per acre	93.95
Est. labor hours per acre	1.14

Crop Enterprise Analysis
North Dakota Farm Business Management Education Program
Region 3 - South Central North Dakota, 2020
(Farms Sorted By Net Return)

Wheat, Durum on Cash Rent

	<u>Avg. Of All Farms</u>
Number of farms	6
Acres	468.14
Yield per acre (bu.)	57.52
Operators share of yield %	100.00
Value per bu.	6.68
Total product return per acre	384.17
Other crop income per acre	24.18
Gross return per acre	408.35
Direct Expenses	
Seed and plants	31.94
Fertilizer	69.57
Crop chemicals	40.72
Crop insurance	9.90
Fuel & oil	14.52
Repairs	24.33
Custom hire	1.49
Land rent	50.50
Machinery leases	0.92
Operating interest	4.69
Miscellaneous	0.95
Total direct expenses per acre	249.52
Return over direct exp per acre	158.83
Overhead Expenses	
Custom hire	0.34
Hired labor	9.12
Machinery leases	0.96
Building leases	0.07
Farm insurance	4.41
Utilities	2.75
Dues & professional fees	2.56
Interest	5.57
Mach & bldg depreciation	44.48
Miscellaneous	6.56
Total overhead expenses per acre	76.83
Total dir & ovhd expenses per acre	326.35
Net return per acre	82.00
Government payments	22.79
Net return with govt pmts	104.79
Labor & management charge	25.56
Net return over lbr & mgt	79.23
Cost of Production	
Total direct expense per bu.	4.34
Total dir & ovhd exp per bu.	5.67
Less govt & other income	4.86
With labor & management	5.30
Net value per unit	6.68
Machinery cost per acre	87.43
Est. labor hours per acre	1.03

Crop Enterprise Analysis
North Dakota Farm Business Management Education Program
Region 3 - South Central North Dakota, 2020
(Farms Sorted By Net Return)

Wheat, Spring on Owned Land

	<u>Avg. Of All Farms</u>	<u>High 20%</u>
Number of farms	23	5
Acres	279.55	207.07
Yield per acre (bu.)	53.01	64.00
Operators share of yield %	100.00	100.00
Value per bu.	5.37	5.61
Total product return per acre	284.83	358.73
Hedging gains/losses per acre	0.46	-
Crop insurance per acre	8.33	2.56
Other crop income per acre	28.31	27.68
Gross return per acre	321.93	388.98
Direct Expenses		
Seed and plants	17.88	17.17
Fertilizer	71.85	63.04
Crop chemicals	33.66	30.78
Crop insurance	13.37	13.19
Drying expense	0.18	0.45
Fuel & oil	11.26	14.14
Repairs	24.41	20.46
Custom hire	1.89	1.89
Machinery leases	2.30	-
Utilities	0.10	-
Operating interest	3.17	2.32
Miscellaneous	1.36	1.46
Total direct expenses per acre	181.41	164.90
Return over direct exp per acre	140.52	224.08
Overhead Expenses		
Hired labor	12.03	9.82
Machinery leases	2.05	7.90
Building leases	0.31	0.67
RE & pers. property taxes	8.85	6.72
Farm insurance	4.83	4.19
Utilities	4.05	3.06
Dues & professional fees	1.38	4.80
Interest	32.88	18.33
Mach & bldg depreciation	37.99	44.38
Miscellaneous	6.07	5.41
Total overhead expenses per acre	110.43	105.27
Total dir & ovhd expenses per acre	291.85	270.18
Net return per acre	30.08	118.80
Government payments	26.39	26.55
Net return with govt pmts	56.47	145.35
Labor & management charge	24.11	27.59
Net return over lbr & mgt	32.36	117.76
Cost of Production		
Total direct expense per bu.	3.42	2.58
Total dir & ovhd exp per bu.	5.51	4.22
Less govt & other income	4.31	3.33
With labor & management	4.76	3.77
Net value per unit	5.38	5.61
Machinery cost per acre	78.96	84.66
Est. labor hours per acre	1.20	1.21

Crop Enterprise Analysis
North Dakota Farm Business Management Education Program
Region 3 - South Central North Dakota, 2020
(Farms Sorted By Net Return)

Wheat, Spring on Cash Rent

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	31	6	6	7
Acres	777.99	153.51	678.44	907.59
Yield per acre (bu.)	59.43	45.41	59.16	61.81
Operators share of yield %	100.00	100.00	100.00	100.00
Value per bu.	5.46	5.17	5.27	5.64
Other product return per acre	0.11	-	0.63	-
Total product return per acre	324.73	234.54	312.49	348.53
Hedging gains/losses per acre	0.15	-	-	-
Crop insurance per acre	3.87	9.51	10.01	0.96
Other crop income per acre	32.18	13.81	37.26	32.29
Gross return per acre	360.93	257.86	359.76	381.78
Direct Expenses				
Seed and plants	18.51	26.14	16.48	18.43
Fertilizer	69.48	90.59	76.15	71.28
Crop chemicals	28.09	46.27	32.70	26.42
Crop insurance	13.21	17.33	12.23	9.22
Drying expense	0.16	0.20	-	0.52
Fuel & oil	11.77	10.81	11.30	9.72
Repairs	22.53	26.83	35.49	18.00
Custom hire	2.19	5.49	2.12	2.80
Land rent	63.47	67.82	63.71	61.11
Machinery leases	1.11	-	-	1.69
Operating interest	3.27	3.27	7.94	1.34
Miscellaneous	1.51	0.51	-	1.08
Total direct expenses per acre	235.29	295.26	258.12	221.60
Return over direct exp per acre	125.64	-37.40	101.64	160.18
Overhead Expenses				
Custom hire	0.51	0.39	1.14	0.86
Hired labor	11.20	3.56	5.75	12.67
Machinery leases	3.87	0.81	6.49	0.00
Building leases	0.56	0.28	0.17	-
Farm insurance	4.87	5.85	6.69	3.60
Utilities	4.60	4.25	6.90	2.82
Dues & professional fees	3.43	2.51	3.28	1.37
Interest	2.75	4.05	4.03	1.56
Mach & bldg depreciation	38.98	30.23	25.78	41.40
Miscellaneous	5.75	9.81	9.39	6.36
Total overhead expenses per acre	76.51	61.76	69.62	70.66
Total dir & ovhd expenses per acre	311.80	357.02	327.74	292.26
Net return per acre	49.13	-99.16	32.02	89.52
Government payments	25.09	34.33	31.36	26.26
Net return with govt pmts	74.22	-64.83	63.38	115.78
Labor & management charge	23.80	27.30	24.67	24.55
Net return over lbr & mgt	50.42	-92.13	38.70	91.23
Cost of Production				
Total direct expense per bu.	3.96	6.50	4.36	3.59
Total dir & ovhd exp per bu.	5.25	7.86	5.54	4.73
Less govt & other income	4.21	6.59	4.20	3.77
With labor & management	4.61	7.19	4.62	4.16
Net value per unit	5.46	5.17	5.27	5.64
Machinery cost per acre	78.97	75.77	83.21	71.09
Est. labor hours per acre	1.06	1.10	1.10	1.05

Crop Enterprise Analysis
North Dakota Farm Business Management Education Program
Region 3 - South Central North Dakota, 2020
(Farms Sorted By Net Return)

Wheat, Spring on Share Rent

	<u>Avg. Of All Farms</u>
Number of farms	5
Acres	111.66
Yield per acre (bu.)	43.88
Operators share of yield %	66.33
Value per bu.	5.23
Total product return per acre	152.22
Other crop income per acre	19.06
Gross return per acre	171.28
Direct Expenses	
Seed and plants	15.69
Fertilizer	65.16
Crop chemicals	22.40
Crop insurance	8.72
Fuel & oil	11.06
Repairs	25.68
Custom hire	10.75
Operating interest	2.90
Miscellaneous	0.94
Total direct expenses per acre	163.31
Return over direct exp per acre	7.97
Overhead Expenses	
Hired labor	8.21
Machinery leases	1.24
Building leases	0.51
Farm insurance	4.55
Utilities	1.99
Dues & professional fees	3.18
Interest	2.42
Mach & bldg depreciation	33.13
Miscellaneous	5.68
Total overhead expenses per acre	60.91
Total dir & ovhd expenses per acre	224.22
Net return per acre	-52.94
Government payments	18.37
Net return with govt pmts	-34.57
Labor & management charge	28.72
Net return over lbr & mgt	-63.29
Cost of Production	
Total direct expense per bu.	5.61
Total dir & ovhd exp per bu.	7.70
Less govt & other income	6.42
With labor & management	7.41
Net value per unit	5.23
Machinery cost per acre	80.57
Est. labor hours per acre	1.51

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, 2020
(Farms Sorted By Net Return)

Beef Cow-Calf -- Average Per Cwt. Produced

	Avg. Of All Farms	
Number of farms	8	
	Quantity	Value
Beef Calves sold (lb)	33.65	48.42
Transferred out (lb)	63.42	92.34
Cull sales (lb)	4.12	24.00
Government payments		22.75
Other income		3.82
Purchased (lb)	-	-19.28
Transferred in (lb)	-1.13	-31.11
Inventory change (lb)	-0.06	-11.27
Gross margin		129.66
Direct Expenses		
Corn (bu.)	0.65	1.96
Corn Silage (lb.)	550.93	11.03
Hay, Alfalfa (lb.)	180.55	6.98
Hay, Grass (lb.)	872.11	27.50
Pasture (aum)	1.33	25.74
Stover (lb.)	79.17	1.38
DDGS, wet (lb.)	44.67	1.65
Other feed stuffs (lb)	145.78	7.51
Veterinary		6.51
Fuel & oil		3.68
Repairs		8.60
Custom hire		3.82
Bedding		2.49
Miscellaneous		2.56
Total direct expenses		111.40
Return over direct expense		18.27
Overhead Expenses		
Custom hire		0.25
Hired labor		6.43
Interest		1.04
Mach & bldg depreciation		10.51
Miscellaneous		8.52
Total overhead expenses		26.75
Total dir & ovhd expenses		138.15
Net return		-8.49
Labor & management charge		9.82
Net return over lbr & mgt		-18.31
Cost of Production Per Cwt. Produced		
Total direct expense per unit		111.40
Total dir & ovhd expense per unit		138.15
With other revenue adjustments		149.99
With labor and management		159.81
Est. labor hours per unit		0.87
Other Information		
Number of cows		265.9
Pregnancy percentage		98.5
Pregnancy loss percentage		1.2
Culling percentage		14.1
Calving percentage		97.3
Weaning percentage		87.6
Calves sold per cow		0.92
Calf death loss percent		10.4
Cow death loss percent		2.5
Cows per FTE		588.6
Average weaning weight		554
Lb. weaned/exposed female		485
Feed cost per cow		458.48
Avg wgt/ Beef Calves sold		589
Avg price / cwt.		143.87

Livestock Enterprise Analysis
North Dakota Farm Business Management Education Program
Region 3 - South Central North Dakota, 2020
(Farms Sorted By Net Return)

Beef Cow-Calf -- Average Per Cow

	Avg. Of All Farms	
Number of farms	8	
	Quantity	Value
Beef Calves sold (lb)	184.3	265.09
Transferred out (lb)	347.2	505.61
Cull sales (lb)	22.6	131.40
Government payments		124.57
Other income		20.90
Purchased (lb)	-	-105.58
Transferred in (lb)	-6.2	-170.34
Inventory change (lb)	-0.3	-61.71
Gross margin		709.94
Direct Expenses		
Corn (bu.)	3.5	10.71
Corn Silage (lb.)	3,016.5	60.37
Hay, Alfalfa (lb.)	988.5	38.22
Hay, Grass (lb.)	4,775.0	150.55
Pasture (aum)	7.3	140.91
Stover (lb.)	433.5	7.56
DDGS, wet (lb.)	244.6	9.03
Other feed stuffs (lb)	798.2	41.12
Veterinary		35.66
Fuel & oil		20.14
Repairs		47.08
Custom hire		20.93
Bedding		13.64
Miscellaneous		14.00
Total direct expenses		609.93
Return over direct expense		100.02
Overhead Expenses		
Custom hire		1.39
Hired labor		35.20
Interest		5.69
Mach & bldg depreciation		57.54
Miscellaneous		46.67
Total overhead expenses		146.48
Total dir & ovhd expenses		756.41
Net return		-46.47
Labor & management charge		53.77
Net return over lbr & mgt		-100.23
Cost of Production Per Cwt. Produced		
Total direct expense per unit		111.40
Total dir & ovhd expense per unit		138.15
With other revenue adjustments		149.99
With labor and management		159.81
Est. labor hours per unit		4.76
Other Information		
Number of cows		265.9
Pregnancy percentage		98.5
Pregnancy loss percentage		1.2
Culling percentage		14.1
Calving percentage		97.3
Weaning percentage		87.6
Calves sold per cow		0.92
Calf death loss percent		10.4
Cow death loss percent		2.5
Cows per FTE		588.6
Average weaning weight		554
Lb. weaned/exposed female		485
Feed cost per cow		458.48
Avg wgt/ Beef Calves sold		589
Avg price / cwt.		143.87

Livestock Enterprise Analysis
North Dakota Farm Business Management Education Program
Region 3 - South Central North Dakota, 2020
(Farms Sorted By Net Return)

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

	Avg. Of All Farms	
Number of farms	8	
	Quantity	Value
Beef Calves sold (lb)	70.59	95.39
Transferred out (lb)	1.79	1.79
Cull sales (lb)	-	22.95
Government payments		28.10
Other income		0.74
Purchased (lb)	-	-10.42
Transferred in (lb)	-	-6.28
Inventory change (lb)	27.19	54.49
Gross margin		186.76
Direct Expenses		
Protein Vit Minerals (lb.)	101.94	10.50
Corn Silage (lb.)	2,301.85	33.00
Hay, Grass (lb.)	1,061.30	30.02
Pasture (aum)	1.81	36.08
Straw (lb.)	46.86	0.47
Hay (lb.)	64.37	1.53
Other feed stuffs (lb)	122.49	3.80
Veterinary		6.91
Supplies		1.21
Fuel & oil		3.58
Repairs		8.45
Custom hire		3.79
Utilities		1.92
Marketing		2.86
Operating interest		1.96
Miscellaneous		2.45
Total direct expenses		148.51
Return over direct expense		38.25
Overhead Expenses		
Farm insurance		2.17
Mach & bldg depreciation		8.80
Miscellaneous		7.00
Total overhead expenses		17.97
Total dir & ovhd expenses		166.47
Net return		20.28
Labor & management charge		16.38
Net return over lbr & mgt		3.90
Cost of Production Per Cwt. Produced		
Total direct expense per unit		148.51
Total dir & ovhd expense per unit		166.47
With other revenue adjustments		124.53
With labor and management		140.92
Est. labor hours per unit		1.01
Other Information		
Number of cows		119.6
Pregnancy percentage		94.0
Pregnancy loss percentage		0.4
Culling percentage		13.8
Calving percentage		93.5
Weaning percentage		89.1
Calves sold per cow		0.53
Calf death loss percent		3.6
Cow death loss percent		1.4
Cows per FTE		531.1
Average weaning weight		572
Lb. weaned/exposed female		509
Feed cost per cow		605.03
Avg wgt/ Beef Calves sold		713
Avg price / cwt.		135.13

Livestock Enterprise Analysis
North Dakota Farm Business Management Education Program
Region 3 - South Central North Dakota, 2020
(Farms Sorted By Net Return)

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

	Avg. Of All Farms	
Number of farms	8	
	Quantity	Value
Beef Calves sold (lb)	370.1	500.14
Transferred out (lb)	9.4	9.40
Cull sales (lb)	-	120.34
Government payments		147.31
Other income		3.89
Purchased (lb)	-	-54.65
Transferred in (lb)	-	-32.92
Inventory change (lb)	142.5	285.68
Gross margin		979.20
Direct Expenses		
Protein Vit Minerals (lb.)	534.5	55.06
Corn Silage (lb.)	12,069.0	173.02
Hay, Grass (lb.)	5,564.5	157.42
Pasture (aum)	9.5	189.16
Straw (lb.)	245.7	2.46
Hay (lb.)	337.5	8.01
Other feed stuffs (lb)	642.2	19.91
Veterinary		36.21
Supplies		6.33
Fuel & oil		18.79
Repairs		44.29
Custom hire		19.86
Utilities		10.06
Marketing		14.97
Operating interest		10.26
Miscellaneous		12.85
Total direct expenses		778.65
Return over direct expense		200.55
Overhead Expenses		
Farm insurance		11.35
Mach & bldg depreciation		46.14
Miscellaneous		36.70
Total overhead expenses		94.20
Total dir & ovhd expenses		872.85
Net return		106.35
Labor & management charge		85.90
Net return over lbr & mgt		20.45
Cost of Production Per Cwt. Produced		
Total direct expense per unit		148.51
Total dir & ovhd expense per unit		166.47
With other revenue adjustments		124.53
With labor and management		140.92
Est. labor hours per unit		5.27
Other Information		
Number of cows		119.6
Pregnancy percentage		94.0
Pregnancy loss percentage		0.4
Culling percentage		13.8
Calving percentage		93.5
Weaning percentage		89.1
Calves sold per cow		0.53
Calf death loss percent		3.6
Cow death loss percent		1.4
Cows per FTE		531.1
Average weaning weight		572
Lb. weaned/exposed female		509
Feed cost per cow		605.03
Avg wgt/ Beef Calves sold		713
Avg price / cwt.		135.13

Livestock Enterprise Analysis
North Dakota Farm Business Management Education Program
Region 3 - South Central North Dakota, 2020
(Farms Sorted By Net Return)

Beef Replacement Heifers -- Average Per Head

	<u>Avg. Of All Farms</u>	
Number of farms	5	
	Quantity	Value
Beef Replace sold (hd)	0.25	356.04
Transferred out (hd)	0.93	1,531.73
Government payments		102.95
Transferred in (hd)	0.42	-430.45
Inventory change (hd)	-0.77	-736.98
Gross margin		823.29
Direct Expenses		
Beet Pulp (dry) (lb.)	80.32	0.64
Corn (bu.)	0.99	1.99
Corn Silage (lb.)	3,805.62	81.42
Hay, Alfalfa (lb.)	684.14	23.44
Hay, Grass (lb.)	2,856.06	97.49
Pasture (aum)	5.63	113.49
Stover (lb.)	70.12	1.93
Other feed stuffs (lb)	413.82	24.73
Breeding fees		13.06
Veterinary		19.61
Fuel & oil		9.45
Repairs		13.32
Custom hire		8.15
Bedding		14.56
Miscellaneous		3.95
Total direct expenses		427.24
Return over direct expense		396.05
Overhead Expenses		
Custom hire		0.89
Hired labor		26.25
Farm insurance		7.20
Dues & professional fees		7.34
Mach & bldg depreciation		34.01
Miscellaneous		15.29
Total overhead expenses		90.98
Total dir & ovhd expenses		518.21
Net return		305.07
Labor & management charge		35.27
Net return over lbr & mgt		269.80
Cost of Production Per Head Sold/Trans		
Total direct expense per unit		1,350.59
Total dir & ovhd expense per unit		1,427.64
With other revenue adjustments		1,340.45
With labor and management		1,370.32
Est. labor hours per unit		2.47
Other Information		
No. purchased or trans in		21
Number sold or trans out		59
Average number of head		50
Percentage death loss		1.0
Feed cost per average head		345.13
Hired labor per average head		26.25
Feed cost/head sold/trans		292.30
Total cost/head sold/trans		1,370.32
Feed cost per head per day		0.95
Avg. wgt / Beef Replace sold		1,038
Avg. sales price / head		1,429.92

Livestock Enterprise Analysis
North Dakota Farm Business Management Education Program
Region 3 - South Central North Dakota, 2020
(Farms Sorted By Net Return)

Beef Replacement Heifers -- Average Per Head Sold/Trans

	Avg. Of All Farms	
Number of farms	5	
	Quantity	Value
Beef Replace sold (hd)	0.2	301.55
Transferred out (hd)	0.8	1,297.28
Government payments		87.19
Transferred in (hd)	0.4	-364.57
Inventory change (hd)	-0.7	-624.18
Gross margin		697.27
Direct Expenses		
Beet Pulp (dry) (lb.)	68.0	0.54
Corn (bu.)	0.8	1.68
Corn Silage (lb.)	3,223.1	68.96
Hay, Alfalfa (lb.)	579.4	19.85
Hay, Grass (lb.)	2,418.9	82.57
Pasture (aum)	4.8	96.12
Stover (lb.)	59.4	1.63
Other feed stuffs (lb)	350.5	20.95
Breeding fees		11.06
Veterinary		16.61
Repairs		11.29
Custom hire		6.90
Bedding		12.33
Miscellaneous		11.35
Total direct expenses		361.84
Return over direct expense		335.43
Overhead Expenses		
Custom hire		0.75
Hired labor		22.23
Dues & professional fees		6.22
Mach & bldg depreciation		28.80
Miscellaneous		19.05
Total overhead expenses		77.05
Total dir & ovhd expenses		438.89
Net return		258.38
Labor & management charge		29.87
Net return over lbr & mgt		228.51
Cost of Production Per Head Sold/Trans		
Total direct expense per unit		1,350.59
Total dir & ovhd expense per unit		1,427.64
With other revenue adjustments		1,340.45
With labor and management		1,370.32
Est. labor hours per unit		2.10
Other Information		
No. purchased or trans in		21
Number sold or trans out		59
Average number of head		50
Percentage death loss		1.0
Feed cost per average head		345.13
Hired labor per average head		26.25
Feed cost/head sold/trans		292.30
Total cost/head sold/trans		1,370.32
Feed cost per head per day		0.95
Avg. wgt / Beef Replace sold		1,038
Avg. sales price / head		1,429.92

Figure 1. Net Farm Income (Accrual) Per Farm

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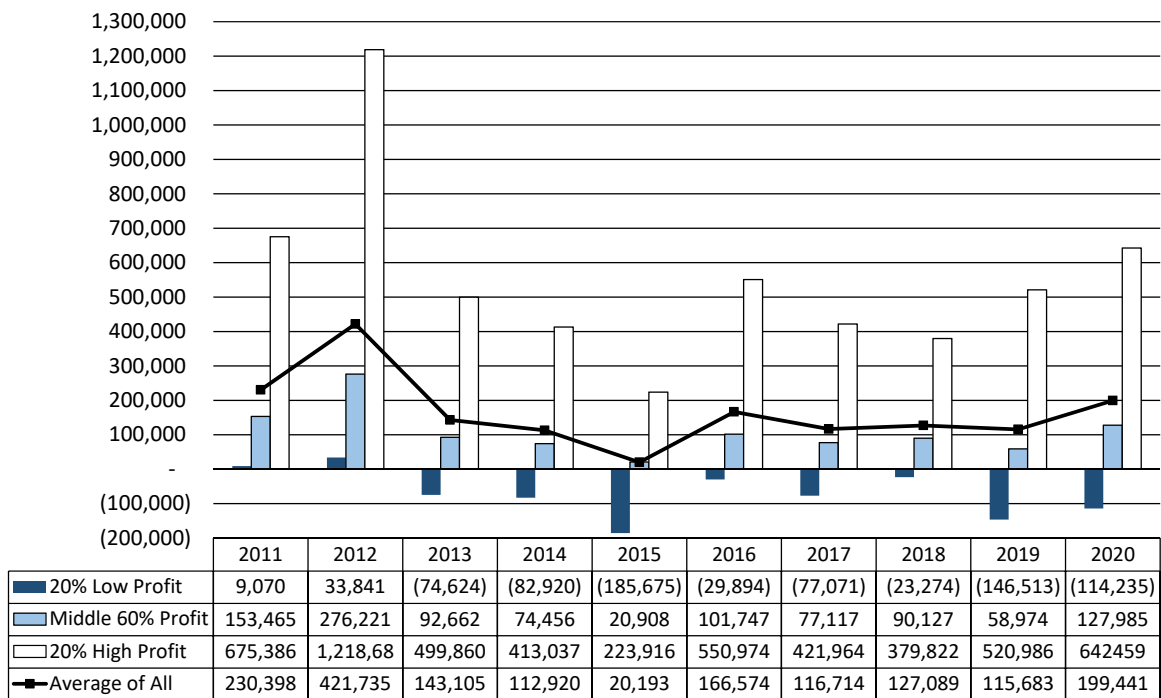


Figure 2. Financial Efficiency Measures (As Percent of Gross Revenue)

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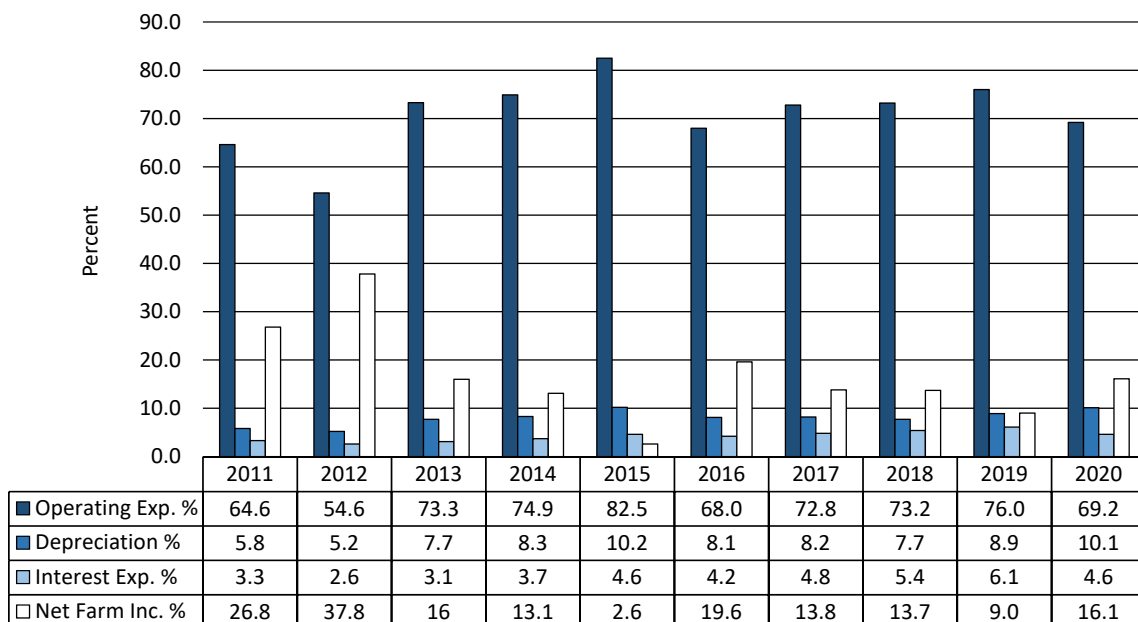


Figure 3. Profitability Measures Per Farm

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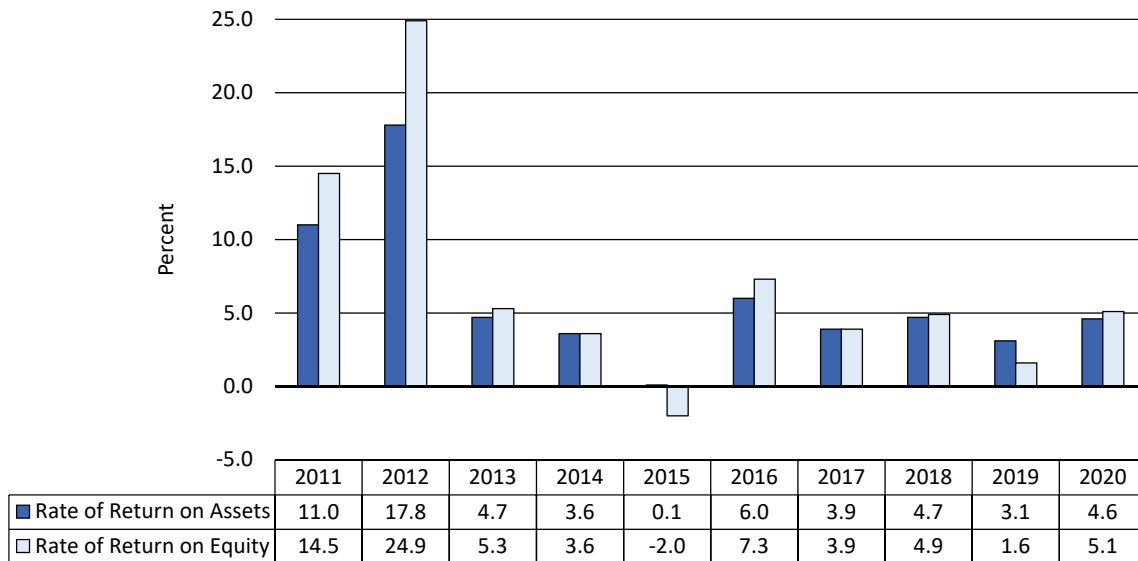


Figure 4. Assets and Liabilities Per Farm, 2020

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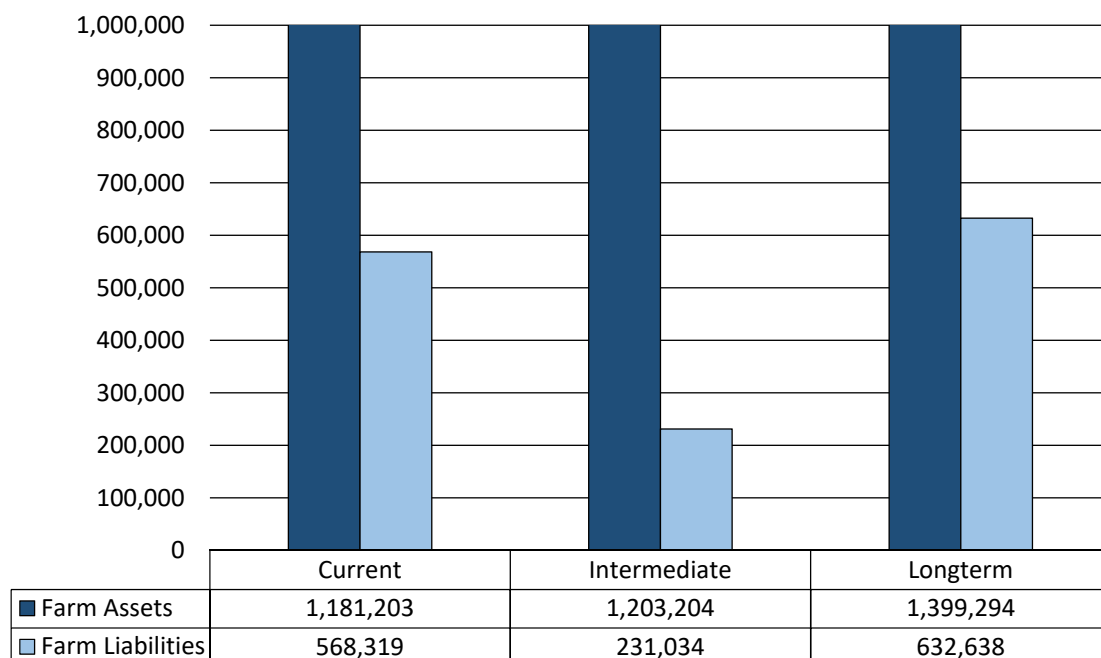


Figure 5. Spring Wheat Costs Per Acre

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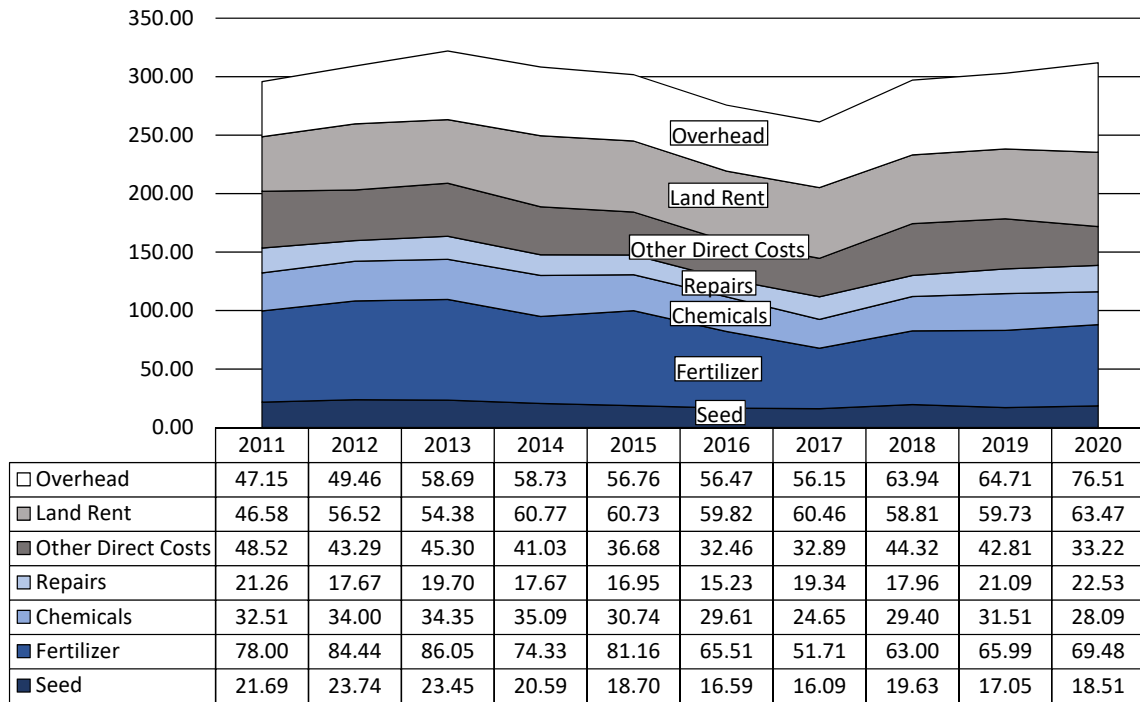
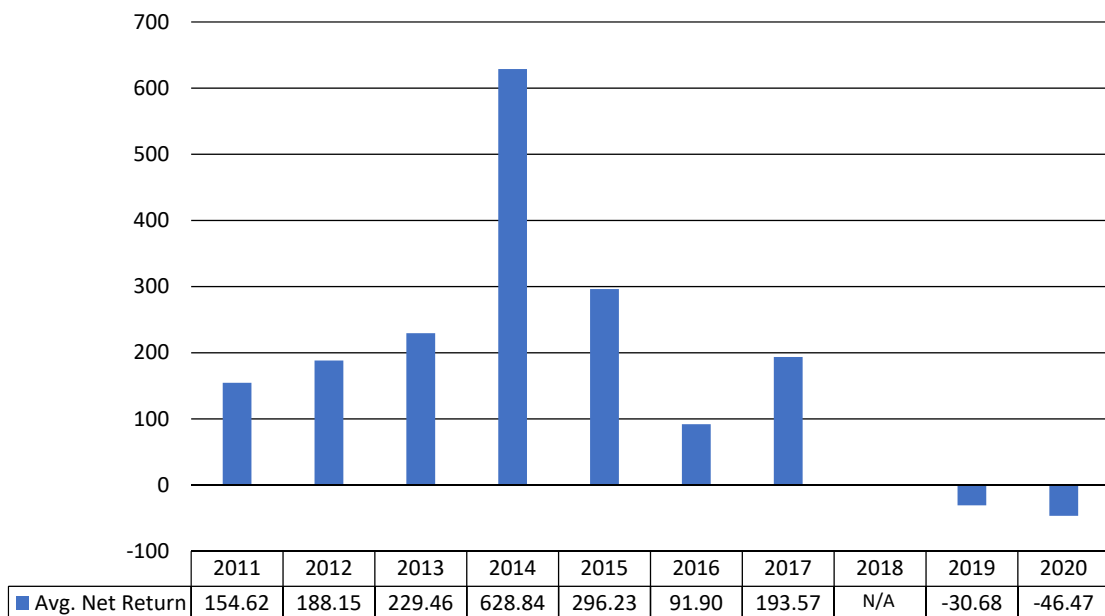


Figure 6. Average Net Return Per Beef Cow

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