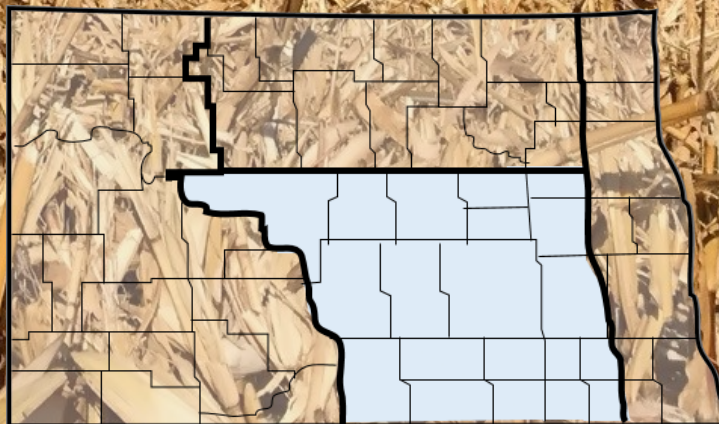


# 2019 ANNUAL REPORT

## South Central North Dakota

North Dakota Farm and Ranch Business  
Management Education



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



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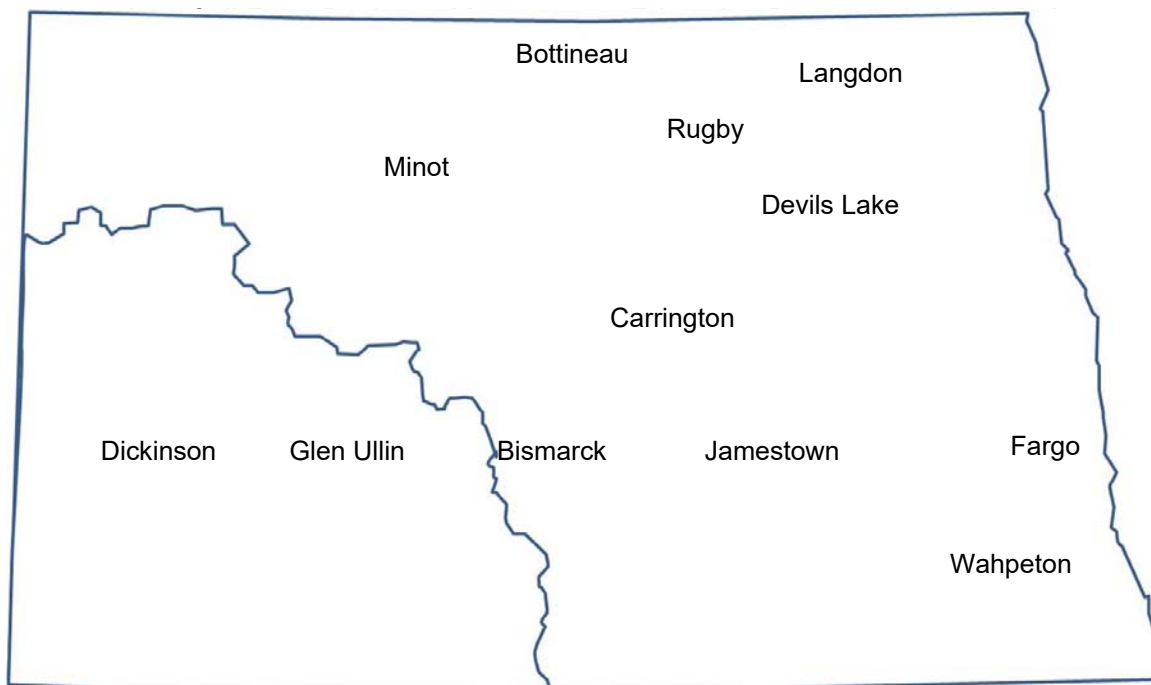
# NORTH DAKOTA FARM BUSINESS MANAGEMENT EDUCATION

## REGION 3 – SOUTH CENTRAL AVERAGES 2019 ANNUAL REPORT

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

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This report was made possible by the farm families who cooperated with their farm management instructors in getting the records for 2019 closed out on a timely basis. The farm management instructors cited above generated the Finpack year-end farm analyses. Andrew Swenson, NDSU Extension Service, databased the Finpack analyses of farms and generated the comparative tables for this report.



# 2019 South Central Report

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## INTRODUCTION

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

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

The 2019 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 31st year that the regional averages have been generated in North Dakota based upon the four regions shown in the state map on the cover of this publication. A regional report has been generated and published for Regions 2 – North Central, 3 – South Central and 4 - Western identified on the North Dakota map. Farms in Region 1 – Red River Valley are located within the Red River Valley. Those farms are contained in a combined Minnesota-North Dakota Red River Valley report. The state averages report includes all farms participating in the North Dakota Farm Business Management Education Program that were represented in the regional averages and also those farms which were processed and submitted after the March deadline date. All of these reports may be ordered from Farm Business Management, P.O. Box 6022, Bismarck, ND, 58506-6022 for \$5 per copy. The reports are available online at [www.ndfarmmanagement.com](http://www.ndfarmmanagement.com).

## EXPLANATORY NOTES FOR THE FARM OPERATORS' REPORTS

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

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

### Farm Income Statement

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

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

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

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

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

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

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

### Inventory Changes

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

## Depreciation

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

## Profitability Measures

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

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

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

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

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

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

**"Value of operator's labor and management"** is an opportunity cost for unpaid operator's labor and management that is used in the calculation of several financial performance measures. A value of \$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, 2019**  
**(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	76	15	15	16
<b>Cash Farm Income</b>				
Barley	35,080	16,478	1,525	129,185
Beans, Garbonzo	1,700	8,613	-	-
Beans, Light Red Kidney	555	-	2,814	-
Beans, Pinto	40,128	63,669	35,693	79,713
Canola	14,741	-	-	50,058
Corn	194,386	177,075	207,423	341,891
Lentils	65	327	-	-
Oats	212	-	769	57
Peas, Field	7,349	-	24,752	9,311
Rye	1,509	414	6,577	-
Soybeans	241,789	151,284	171,775	548,143
Sunflowers	7,871	-	-	37,385
Sunflowers, Confectionary	4,270	-	-	-
Wheat, Durum	26,345	7,048	-	118,533
Wheat, Spring	140,399	101,267	82,755	284,590
Wheat, Winter	586	-	-	1,988
Rented Out	1,391	3,125	312	2,512
Miscellaneous crop income	5,271	8,392	2,528	10,594
Beef Cow-Calf, Beef Calves	43,390	59,536	52,679	30,703
Beef Replacement Heifers	3,366	-	10,075	6,544
Beef Backgrounding	20,123	30,527	42,438	15,853
Beef Finishing	81,611	411,185	-	2,168
Beef Finish Yearlings	441	-	2,004	216
Beef Stockers	3,287	-	-	15,614
Dairy, Milk	47,714	241,752	-	-
Dairy, Dairy Calves	227	1,150	-	-
Sheep, Feeder Lamb Prod, Fdr Lambs	187	946	-	-
Cull breeding livestock	9,992	21,070	14,709	7,853
Misc. livestock income	77	84	-	-
Crop government payments	15,449	7,835	5,451	42,478
CRP payments	2,266	392	2,607	3,182
Other government payments	99,382	78,328	63,694	224,842
Conservation govt payment	6,910	2,502	4,811	7,500
Custom work income	55,189	254,459	4,063	16,083
Patronage dividends, cash	4,074	9,952	3,590	2,999
Crop insurance income	73,298	97,719	20,157	168,358
Property insurance income	5,361	7,706	8,003	8,584
Sale of resale items	533	-	-	-
Livestock insurance inc	95	28	422	-
Other farm income	27,901	25,990	15,217	29,395
Gross Cash Farm Income	1,224,521	1,789,653	786,840	2,196,331



**Farm Income Statement (continued)**  
**North Dakota Farm Business Management Education Program**  
**Region 3 - South Central North Dakota, 2019**  
**(Farms Sorted By Net Farm Income)**

	<u>Avg. Of</u> <u>All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	76	15	15	16
<b>Cash Farm Expense</b>				
Seed and plants	122,491	129,611	69,318	244,212
Fertilizer	134,363	147,070	92,113	268,852
Crop chemicals	79,297	81,861	48,630	167,024
Crop insurance	34,998	47,140	23,215	62,108
Drying expense	3,125	6,240	1,803	5,472
Storage	1,725	-	-	4,813
Irrigation energy	540	-	1,438	1,037
Crop miscellaneous	2,006	1,276	98	725
Consultants	3,526	2,853	1,681	5,687
Feeder livestock purchase	46,305	202,092	17,810	13,518
Purchased feed	42,278	172,765	16,443	9,669
Breeding fees	1,400	4,566	446	428
Veterinary	6,623	24,136	2,195	3,474
Supplies	30,350	149,814	429	2,627
Livestock leases	38	-	193	-
Interest	69,204	143,066	50,502	71,451
Fuel & oil	45,099	69,294	26,373	79,074
Repairs	82,826	142,011	52,841	123,612
Custom hire	15,999	16,613	13,272	28,210
Hired labor	57,294	157,590	18,122	85,496
Land rent	141,602	159,649	94,904	293,370
Machinery leases	15,301	30,469	12,863	24,180
Building leases	593	129	233	2,317
Real estate taxes	7,028	7,216	7,549	8,104
Farm insurance	15,926	22,984	11,145	25,802
Utilities	14,651	23,477	10,201	23,053
Hauling and trucking	3,733	18,913	-	-
Marketing	2,350	5,740	3,334	1,159
Dues & professional fees	6,336	8,525	3,499	15,383
Purchase of resale items	220	-	-	-
Miscellaneous	17,909	11,103	13,751	42,908
Total cash expense	1,005,133	1,786,205	594,402	1,613,764
Net cash farm income	219,388	3,448	192,438	582,567
<b>Inventory Changes</b>				
Prepays and supplies	8,904	30,664	-11,550	21,746
Accounts receivable	1,471	18,305	-584	-15,068
Hedging accounts	3,159	8,905	2,619	4,195
Other current assets	4,278	23,045	-209	-886
Crops and feed	27,463	23,006	-41,419	171,517
Market livestock	-28,124	-154,732	-2,987	19,524
Breeding livestock	-9,950	-16,344	-28,253	-1,689
Other assets	-7,937	-1,642	4,219	-40,419
Accounts payable	3,479	27,922	-1,968	-12,230
Accrued interest	-4,960	-5,295	-373	-11,204
Total inventory change	-2,218	-46,166	-80,506	135,485
Net operating profit	217,170	-42,718	111,932	718,052
<b>Depreciation</b>				
Machinery and equipment	-85,388	-71,281	-58,166	-186,246
Titled vehicles	-7,257	-8,437	-4,823	-12,044
Buildings and improvements	-15,071	-24,380	-11,551	-26,658
Total depreciation	-107,717	-104,098	-74,540	-224,948
Net farm income from operations	109,453	-146,815	37,392	493,104
Gain or loss on capital sales	6,230	302	190	27,881
Net farm income	115,683	-146,513	37,582	520,986

**Inventory Changes**  
**North Dakota Farm Business Management Education Program**  
**Region 3 - South Central North Dakota, 2019**  
**(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	76	15	15	16
Net cash farm income	219,388	3,448	192,438	582,567
<b>Crops and Feed</b>				
Ending inventory	820,297	582,802	425,920	2,239,940
Beginning inventory	792,833	559,796	467,339	2,068,423
Inventory change	27,463	23,006	-41,419	171,517
<b>Market Livestock</b>				
Ending inventory	78,246	142,694	92,112	85,988
Beginning inventory	106,371	297,426	95,099	66,464
Inventory change	-28,124	-154,732	-2,987	19,524
<b>Accts Receivable</b>				
Ending inventory	88,083	100,992	25,123	235,595
Beginning inventory	86,613	82,687	25,706	250,663
Inventory change	1,471	18,305	-584	-15,068
<b>Prepaid Expenses and Supplies</b>				
Ending inventory	115,809	82,910	56,518	352,423
Beginning inventory	106,905	52,246	68,069	330,677
Inventory change	8,904	30,664	-11,550	21,746
<b>Hedging Activities</b>				
Ending inventory	10,036	5,472	13,370	25,631
Withdrawals	8,665	12,039	13,929	16,813
Beginning inventory	8,186	4,953	11,787	20,312
Deposits	7,356	3,653	12,893	17,938
Gain or loss	3,159	8,905	2,619	4,195
<b>Other Current Assets</b>				
Ending inventory	8,650	39,568	1,253	2,630
Beginning inventory	4,372	16,523	1,462	3,516
Inventory change	4,278	23,045	-209	-886
<b>Breeding Livestock</b>				
Ending inventory	124,243	249,945	70,890	159,341
Capital sales	2,941	-	4,404	5,633
Beginning inventory	126,749	260,428	70,907	158,846
Capital purchases	10,385	5,861	32,641	7,817
Depreciation, capital adjust	-9,950	-16,344	-28,253	-1,689
<b>Other Capital Assets</b>				
Ending inventory	139,577	83,443	48,609	504,641
Capital sales	1,354	-	517	5,946
Beginning inventory	111,065	80,618	44,689	375,839
Capital purchases	37,802	4,467	217	175,168
Depreciation, capital adjust	-7,937	-1,642	4,219	-40,419
<b>Accounts Payable</b>				
Beginning inventory	33,437	75,158	19,578	30,345
Ending inventory	29,958	47,236	21,547	42,575
Inventory change	3,479	27,922	-1,968	-12,230
<b>Accrued Interest</b>				
Beginning inventory	28,923	59,167	20,909	27,426
Ending inventory	33,883	64,462	21,282	38,630
Inventory change	-4,960	-5,295	-373	-11,204
Total inventory change	-2,218	-46,166	-80,506	135,485
Net operating profit	217,170	-42,718	111,932	718,052

**Depreciation**  
**North Dakota Farm Business Management Education Program**  
**Region 3 - South Central North Dakota, 2019**  
**(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	76	15	15	16
Net operating profit	217,170	-42,718	111,932	718,052
<b>Machinery and Equipment</b>				
Ending inventory	822,637	696,263	543,635	1,806,864
Capital sales	17,853	8,190	13,964	47,527
Beginning inventory	818,219	711,407	533,749	1,734,725
Capital purchases	107,660	64,328	82,016	305,911
Depreciation, capital adjust.	-85,388	-71,281	-58,166	-186,246
<b>Titled Vehicles</b>				
Ending inventory	60,551	73,479	38,248	100,769
Capital sales	473	167	-	1,423
Beginning inventory	60,558	75,340	38,043	99,242
Capital purchases	7,724	6,743	5,028	14,993
Depreciation, capital adjust.	-7,257	-8,437	-4,823	-12,044
<b>Buildings and Improvements</b>				
Ending inventory	372,952	486,991	325,505	659,956
Capital sales	2,102	10,311	338	-
Beginning inventory	366,646	499,064	325,304	645,142
Capital purchases	23,479	22,618	12,090	41,472
Depreciation, capital adjust.	-15,071	-24,380	-11,551	-26,658
Total depreciation, capital adj.	-107,717	-104,098	-74,540	-224,948
Net farm income from operations	109,453	-146,815	37,392	493,104
Gain or loss on capital sales	6,230	302	190	27,881
Net farm income	115,683	-146,513	37,582	520,986

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**Profitability Measures**  
**North Dakota Farm Business Management Education Program**  
**Region 3 - South Central North Dakota, 2019**  
**(Farms Sorted By Net Farm Income)**

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	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	76	15	15	16
<b>Profitability (assets valued at cost)</b>				
Net farm income from operations	109,453	-146,815	37,392	493,104
Rate of return on assets	3.1 %	-2.1 %	1.4 %	6.0 %
Rate of return on equity	1.6 %	-19.1 %	-1.5 %	6.6 %
Operating profit margin	9.6 %	-5.9 %	4.8 %	18.9 %
Asset turnover rate	31.9 %	35.1 %	29.6 %	32.0 %
Farm interest expense	74,163	148,362	50,875	82,655
Value of operator lbr and mgmt.	75,653	79,022	55,569	138,832
Return on farm assets	107,963	-77,476	32,697	436,927
Average farm assets	3,533,985	3,740,298	2,320,902	7,227,719
Return on farm equity	33,800	-225,837	-18,177	354,272
Average farm equity	2,052,946	1,183,685	1,218,937	5,406,217
Value of farm production	1,125,752	1,313,340	686,182	2,310,248



**Liquidity & Repayment Capacity Measures**  
**North Dakota Farm Business Management Education Program**  
**Region 3 - South Central North Dakota, 2019**  
**(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	76	15	15	16
<b>Liquidity</b>				
Current ratio	1.50	0.87	1.87	1.94
Working capital	255,073	-127,137	215,582	759,174
Working capital to gross inc	27.5 %	-9.3 %	49.2 %	43.1 %
Current assets	762,638	818,825	463,710	1,564,450
Current liabilities	507,565	945,962	248,128	805,275
Gross revenues (accrual)	927,184	1,363,040	438,602	1,760,874
<b>Repayment capacity</b>				
Net farm income from operations	109,453	-146,815	37,392	493,104
Depreciation	107,717	104,098	74,540	224,948
Personal income	40,097	33,720	30,336	63,149
Family living/owner withdrawals	-81,904	-100,575	-63,928	-116,304
Cash discrepancy	-64	-225	376	-481
Payments on personal debt	-3,384	-3,638	-2,715	-5,480
Income taxes paid	-15,890	-5,201	-8,387	-37,540
Interest on term debt	38,411	61,507	26,739	36,861
Capital debt repayment capacity	194,435	-57,130	94,353	658,256
Scheduled term debt payments	-114,144	-173,083	-83,563	-138,993
Capital debt repayment margin	80,291	-230,213	10,790	519,262
Cash replacement allowance	-66,734	-42,384	-44,046	-159,414
Replacement margin	13,557	-272,598	-33,256	359,848
Term debt coverage ratio	1.70	-0.33	1.13	4.74
Replacement coverage ratio	1.07	-0.27	0.74	2.21

**Balance Sheet at Cost Values**  
**North Dakota Farm Business Management Education Program**  
**Region 3 - South Central North Dakota, 2019**  
**(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	66	13	12	11
<b>Assets</b>				
Current Farm Assets				
Cash and checking balance	70,883	12,715	128,208	59,764
Prepaid expenses & supplies	65,630	90,973	27,217	159,190
Growing crops	588	2,308	483	-
Accounts receivable	47,752	74,869	22,137	79,962
Hedging accounts	6,810	6,306	4,785	21,826
Crops held for sale or feed	497,448	470,665	174,512	1,204,192
Market livestock held for sale	73,141	160,103	105,286	39,425
Other current assets	387	886	1,083	91
Total current farm assets	762,638	818,825	463,710	1,564,450
Intermediate Farm Assets				
Breeding livestock	81,375	106,303	74,780	91,902
Machinery and equipment	594,981	628,169	323,539	1,109,815
Titled vehicles	44,371	56,976	16,918	61,006
Other intermediate assets	12,223	10,096	28,121	17,935
Total intermediate farm assets	732,950	801,544	443,357	1,280,658
Long Term Farm Assets				
Farm land	803,681	1,012,438	458,595	1,265,138
Buildings and improvements	235,508	355,272	153,410	316,953
Other long-term assets	17,187	7,989	14,259	40,669
Total long-term farm assets	1,056,376	1,375,699	626,264	1,622,760
Total Farm Assets	2,551,965	2,996,068	1,533,331	4,467,867
Total Nonfarm Assets	324,348	429,275	262,111	463,618
Total Assets	2,876,312	3,425,344	1,795,442	4,931,485
<b>Liabilities</b>				
Current Farm Liabilities				
Accrued interest	28,502	57,037	11,103	30,507
Accounts payable	26,195	35,857	10,370	52,220
Current notes	383,490	752,313	197,434	599,046
Government crop loans	-	-	-	-
Principal due on term debt	69,377	100,755	29,220	123,503
Total current farm liabilities	507,565	945,962	248,128	805,275
Total intermediate farm liabs	165,253	277,332	62,711	260,105
Total long term farm liabilities	611,449	1,028,384	264,152	765,103
Total farm liabilities	1,284,267	2,251,677	574,991	1,830,483
Total nonfarm liabilities	68,770	92,482	26,606	163,089
Total liabilities	1,353,036	2,344,159	601,598	1,993,572
Net worth (farm and nonfarm)	1,523,276	1,081,185	1,193,844	2,937,913
Net worth change	49,016	-164,647	52,182	334,032
Percent net worth change	3 %	-13 %	5 %	13 %
<b>Ratio Analysis</b>				
Current farm liabilities / assets	67 %	116 %	54 %	51 %
Intermediate farm liab. / assets	23 %	35 %	14 %	20 %
Long term farm liab. / assets	58 %	75 %	42 %	47 %
Total debt to asset ratio	47 %	68 %	34 %	40 %

**Statement Of Cash Flows**  
**North Dakota Farm Business Management Education Program**  
**Region 3 - South Central North Dakota, 2019**  
**(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	76	15	15	16
Beginning cash (farm & nonfarm)	61,436	22,932	108,789	30,218
<b>Cash Provided By Operating Activities</b>				
Gross cash farm income	1,224,521	1,789,653	786,840	2,196,331
Total cash farm expense	-1,005,133	-1,786,205	-594,402	-1,613,764
Net cash from hedging transactions	1,309	8,386	1,036	-1,125
Cash provided by operating	220,697	11,834	193,474	581,442
<b>Cash Provided By Investing Activities</b>				
Sale of breeding livestock	2,528	-	4,404	3,674
Sale of machinery & equipment	17,292	8,158	14,153	44,408
Sale of titled vehicles	715	167	-	1,632
Sale of farm land	14,454	-	-	68,655
Sale of farm buildings	2,168	10,645	338	-
Sale of other farm assets	1,354	-	517	5,946
Sale of nonfarm assets	2,007	4,962	1,622	2,500
Purchase of breeding livestock	-10,385	-5,861	-32,641	-7,817
Purchase of machinery & equip.	-107,660	-64,328	-82,016	-305,911
Purchase of titled vehicles	-7,724	-6,743	-5,028	-14,993
Purchase of farm land	-76,255	-27,579	-	-328,013
Purchase of farm buildings	-23,479	-22,618	-12,090	-41,472
Purchase of other farm assets	-37,802	-4,467	-217	-175,168
Purchase of nonfarm assets	-20,893	-6,142	-22,778	-26,171
Cash provided by investing	-243,679	-113,806	-133,737	-772,731
<b>Cash Provided By Financing Activities</b>				
Money borrowed	1,085,083	1,875,376	740,047	1,906,191
Principal payments	-998,214	-1,700,696	-758,604	-1,618,235
Personal income	40,097	33,720	30,336	63,149
Family living/owner withdrawals	-81,901	-100,575	-63,912	-116,304
Income and social security tax	-14,290	-5,061	-9,166	-29,978
Capital contributions	-	-	-	-
Capital distributions	-	-	-	-
Dividends paid	-3	-	-15	-
Cash gifts and inheritances	16,175	9,827	31,867	35,938
Gifts given	-1,492	-	-5,055	-1,817
Other cash flows	-	-	-	-
Cash provided by financing	45,456	112,589	-34,502	238,944
Net change in cash balance	22,474	10,617	25,235	47,655
Ending cash (farm & nonfarm)	83,846	33,324	134,400	77,391
Discrepancy	64	225	-376	481

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**Financial Standards Measures**  
**North Dakota Farm Business Management Education Program**  
**Region 3 - South Central North Dakota, 2019**  
**(Farms Sorted By Net Farm Income)**

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	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	76	15	15	16
<b>Liquidity</b>				
Current ratio	1.50	0.87	1.87	1.94
Working capital	255,073	-127,137	215,582	759,174
Working capital to gross inc	27.5 %	-9.3 %	49.2 %	43.1 %
<b>Solvency (cost)</b>				
Farm debt to asset ratio	50 %	75 %	37 %	41 %
Farm equity to asset ratio	50 %	25 %	63 %	59 %
Farm debt to equity ratio	1.01	3.02	0.60	0.69
<b>Profitability (cost)</b>				
Rate of return on farm assets	3.1 %	-2.1 %	1.4 %	6.0 %
Rate of return on farm equity	1.6 %	-19.1 %	-1.5 %	6.6 %
Operating profit margin	9.6 %	-5.9 %	4.8 %	18.9 %
Net farm income	115,683	-146,513	37,582	520,986
EBITDA	291,333	105,644	162,806	800,707
<b>Repayment Capacity</b>				
Capital debt repayment capacity	194,435	-57,130	94,353	658,256
Capital debt repayment margin	80,291	-230,213	10,790	519,262
Replacement margin	13,557	-272,598	-33,256	359,848
Term debt coverage ratio	1.70	-0.33	1.13	4.74
Replacement coverage ratio	1.07	-0.27	0.74	2.21
<b>Efficiency</b>				
Asset turnover rate (cost)	31.9 %	35.1 %	29.6 %	32.0 %
Operating expense ratio	76.0 %	93.7 %	77.4 %	65.7 %
Depreciation expense ratio	8.9 %	6.2 %	10.3 %	9.6 %
Interest expense ratio	6.1 %	8.8 %	7.1 %	3.5 %
Net farm income ratio	9.0 %	-8.7 %	5.2 %	21.1 %

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**Crop Production and Marketing Summary**  
**North Dakota Farm Business Management Education Program**  
**Region 3 - South Central North Dakota, 2019**  
**(Farms Sorted By Net Farm Income)**

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	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	76	15	15	16
<b>Acreage Summary</b>				
Total acres owned	1,078	1,008	1,017	1,484
Total crop acres	2,684	2,530	1,710	5,579
Crop acres owned	660	506	509	1,098
Crop acres cash rented	1,974	2,010	1,136	4,376
Crop acres share rented	50	14	65	106
Total pasture acres	536	763	479	549
Percent crop acres owned	25 %	20 %	30 %	20 %
Mach invest/crop acre cost	326	308	337	335
<b>Average Price Received (Cash Sales Only)</b>				
Soybeans per bushel	8.01	7.82	7.92	8.09
Wheat, Spring per bushel	4.89	-	4.74	5.22
Corn per bushel	3.25	3.25	3.56	3.13
Beans, Pinto per cwt	23.07	-	-	22.86
Barley per bushel	4.64	-	-	-
Canola per cwt	16.44	-	-	-
Flax per bushel	10.02	-	-	-
Hay, Grass per ton	55.30	-	-	-
<b>Average Yield Per Acre</b>				
Soybeans (bushel)	37.68	35.74	38.64	39.12
Wheat, Spring (bushel)	58.08	46.02	58.24	59.59
Corn (bushel)	143.03	137.76	130.71	156.06
Hay, Grass (ton)	0.991	-	1.14	1.46
Beans, Pinto (cwt)	15.75	13.76	-	17.90
Hay, Mixed Alfalfa/Grass (ton)	1.80	2.24	-	1.66
Canola (cwt)	18.15	-	-	18.40
Corn Silage (ton)	16.99	-	21.06	-
Wheat, Durum (bushel)	59.81	-	-	60.52
Hay, Small Grain (ton)	2.51	-	-	-
Hay, Alfalfa (ton)	3.57	-	-	-
Barley (bushel)	85.90	-	-	-
Sunflowers (cwt)	21.73	-	-	21.73

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**Household and Personal Expenses**  
**North Dakota Farm Business Management Education Program**  
**Region 3 - South Central North Dakota, 2019**  
**(Farms Sorted By Net Farm Income)**

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	<u>Avg. Of All Farms</u>
Number of farms	13
Average family size	2.6
Family Living Expenses	
Food and meals expense	8,203
Medical care	5,560
Health insurance	6,929
Cash donations	2,505
Household supplies	6,452
Clothing	3,016
Personal care	2,874
Child / Dependent care	906
Alimony and child support	-
Gifts	2,027
Education	509
Recreation	2,892
Utilities (household share)	3,164
Personal vehicle operating exp	3,281
Household real estate taxes	-
Dwelling rent	447
Household repairs	1,387
Personal interest	539
Disability / Long term care ins	1,017
Life insurance payments	2,539
Personal property insurance	72
Miscellaneous	7,155
Total cash family living expense	61,456
Family living from the farm	1,888
Total family living	63,344
Other Nonfarm Expenditures	
Income taxes	18,315
Furnishing & appliance purchases	-
Nonfarm vehicle purchases	-
Nonfarm real estate purchases	45,140
Other nonfarm capital purchases	760
Nonfarm savings & investments	2,105
Total other nonfarm expenditures	66,319
Total cash family living investment & nonfarm capital purch	127,775

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**Operator and Labor Information**  
**North Dakota Farm Business Management Education Program**  
**Region 3 - South Central North Dakota, 2019**  
**(Farms Sorted By Net Farm Income)**

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	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	76	15	15	16
<b>Operator Information</b>				
Average number of operators	1.2	1.3	1.1	1.5
Average age of operators	46.7	49.5	51.1	45.4
Average number of years farming	22.2	24.4	24.8	21.4
<b>Results Per Operator</b>				
Working capital	451,239	-86,244	199,638	1,304,441
Total assets (cost)	3,319,952	3,236,533	2,328,028	5,342,067
Total liabilities	1,348,108	2,152,269	1,007,495	1,401,304
Net worth (cost)	1,971,845	1,084,264	1,320,533	3,940,763
Gross farm income	1,025,624	1,332,787	635,678	1,555,623
Total farm expense	933,197	1,448,693	602,685	1,226,887
Net farm income from operations	92,427	-115,907	32,993	328,736
Net nonfarm income	33,860	26,621	26,767	42,099
Family living & tax withdrawals	82,636	83,685	63,475	102,883
Total acres owned	910.7	795.4	897.5	989.6
Total crop acres	2,266.3	1,997.0	1,509.0	3,719.5
Crop acres owned	557.1	399.3	449.3	731.8
Crop acres cash rented	1,667.3	1,586.9	1,002.6	2,917.4
Crop acres share rented	41.9	10.8	57.1	70.4
Total pasture acres	452.9	602.6	422.9	365.9
<b>Labor Analysis</b>				
Number of farms	76	15	15	16
Total unpaid labor hours	2,058	2,100	1,860	2,844
Total hired labor hours	2,150	6,128	942	2,716
Total labor hours per farm	4,208	8,228	2,802	5,560
Unpaid hours per operator	1,738	1,658	1,641	1,896

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**Nonfarm Summary**  
**North Dakota Farm Business Management Education Program**  
**Region 3 - South Central North Dakota, 2019**  
**(Farms Sorted By Net Farm Income)**

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	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	76	15	15	16
<b>Nonfarm Income</b>				
Personal wages & salary	27,532	23,276	25,553	30,279
Net nonfarm business income	4,969	-858	431	23,189
Personal rental income	300	400	-	1,052
Personal interest income	1,462	33	1,281	5,628
Personal cash dividends	63	-	-	279
Tax refunds	904	1,265	1,936	-
Other nonfarm income	4,867	9,603	1,135	2,722
Total nonfarm income	40,097	33,720	30,336	63,149
Gifts and inheritances	16,175	9,827	31,867	35,938



**Financial Summary**  
**North Dakota Farm Business Management Education Program**  
**Region 3 - South Central North Dakota, 2019**  
**(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	76	13	12	21	14	12
<b>Income Statement</b>						
Gross cash farm income	1,224,521	184,604	414,320	731,584	1,469,732	4,130,619
Total cash farm expense	1,005,133	152,220	333,901	535,179	1,238,699	3,467,612
Net cash farm income	219,388	32,384	80,419	196,406	231,033	663,008
Inventory change	-2,218	-3,359	-24,184	-55,064	72,055	25,984
Depreciation	-107,717	-15,127	-27,433	-63,971	-165,185	-331,400
Net farm income from operations	109,453	13,898	28,802	77,370	137,904	357,592
Gain or loss on capital sales	6,230	172	-131	188	1,538	37,278
Average net farm income	115,683	14,070	28,671	77,558	139,441	394,870
Median net farm income	36,880	21,040	52,593	58,420	111,548	365,864
<b>Profitability (cost)</b>						
Rate of return on assets	3.1 %	0.5 %	0.4 %	3.3 %	3.1 %	3.5 %
Rate of return on equity	1.6 %	-2.9 %	-1.7 %	1.7 %	1.8 %	2.4 %
Operating profit margin	9.6 %	2.3 %	1.1 %	11.2 %	9.8 %	10.4 %
Asset turnover rate	31.9 %	19.9 %	31.9 %	29.3 %	31.6 %	34.1 %
<b>Liquidity &amp; Repayment (end of year)</b>						
Current assets	762,638	161,733	374,635	557,121	1,289,443	2,840,929
Current liabilities	507,565	75,133	198,893	332,256	838,723	2,184,646
Current ratio	1.50	2.15	1.88	1.68	1.54	1.30
Working capital	255,073	86,599	175,742	224,865	450,720	656,283
Change in working capital	1,659	5,367	-53,592	-5,254	-19,011	169,678
Working capital to gross inc	27.5 %	52.1 %	46.1 %	32.0 %	30.8 %	17.3 %
Term debt coverage ratio	1.70	0.75	0.67	1.16	1.38	2.70
Replacement coverage ratio	1.07	0.62	0.47	0.78	0.95	1.47
Term debt to EBITDA	2.85	7.73	3.18	3.59	3.12	2.12
<b>Solvency (end of year at cost)</b>						
Number of sole proprietors	66	12	12	20	12	6
Total assets	2,876,312	950,490	1,239,384	2,601,154	5,212,656	7,771,842
Total liabilities	1,353,036	458,008	452,746	1,069,920	2,150,567	5,000,106
Net worth	1,523,276	492,482	786,638	1,531,234	3,062,089	2,771,736
Net worth change	49,016	5,886	-19,150	65,550	37,199	239,227
Farm debt to asset ratio	50 %	52 %	38 %	44 %	46 %	67 %
Total debt to asset ratio	47 %	48 %	37 %	41 %	41 %	64 %
Change in earned net worth %	3 %	1 %	-2 %	4 %	1 %	9 %
<b>Nonfarm Information</b>						
Net nonfarm income	40,097	36,595	26,231	32,940	40,560	64,543
Farms reporting living expenses	13	1	2	7	2	-
Total family living expense	63,344	-	-	67,574	-	-
<b>Crop Acres</b>						
Total crop acres	2,684	572	1,016	1,861	3,562	7,936
Total crop acres owned	660	228	246	624	911	1,530
Total crop acres cash rented	1,974	304	720	1,189	2,633	6,299
Total crop acres share rented	50	40	50	48	19	106
Machinery value per crop acre	326	249	246	307	379	322

**Financial Summary**  
**North Dakota Farm Business Management Education Program**  
**Region 3 - South Central North Dakota, 2019**  
**(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	76	12	14	11	23	16
<b>Income Statement</b>						
Gross cash farm income	1,224,521	626,351	1,296,716	977,950	1,691,059	1,108,849
Total cash farm expense	1,005,133	569,104	1,125,251	798,154	1,466,937	705,505
Net cash farm income	219,388	57,247	171,465	179,796	224,121	403,343
Inventory change	-2,218	61,108	-51,265	47,685	87,849	-170,578
Depreciation	-107,717	-40,372	-44,386	-83,576	-173,414	-135,798
Net farm income from operations	109,453	77,982	75,814	143,905	138,557	96,967
Gain or loss on capital sales	6,230	-	315	2,989	-3,837	32,778
Average net farm income	115,683	77,982	76,129	146,894	134,720	129,745
Median net farm income	36,880	31,340	46,605	58,420	36,396	36,216
<b>Profitability (cost)</b>						
Rate of return on assets	3.1 %	4.9 %	4.4 %	5.2 %	2.9 %	1.5 %
Rate of return on equity	1.6 %	5.4 %	2.5 %	6.3 %	1.1 %	0.8 %
Operating profit margin	9.6 %	10.2 %	10.4 %	13.4 %	9.0 %	7.1 %
Asset turnover rate	31.9 %	48.0 %	42.6 %	38.4 %	31.6 %	21.0 %
<b>Liquidity &amp; Repayment (end of year)</b>						
Current assets	762,638	510,093	758,731	696,593	1,062,659	563,738
Current liabilities	507,565	369,955	503,263	436,505	848,344	129,601
Current ratio	1.50	1.38	1.51	1.60	1.25	4.35
Working capital	255,073	140,139	255,468	260,088	214,314	434,137
Change in working capital	1,659	22,006	51,516	3,305	-17,521	-45,986
Working capital to gross inc	27.5 %	20.3 %	21.1 %	33.3 %	18.5 %	78.8 %
Term debt coverage ratio	1.70	2.28	1.00	2.00	1.62	2.13
Replacement coverage ratio	1.07	1.74	0.82	1.33	1.05	0.94
Term debt to EBITDA	2.85	3.49	3.98	2.90	2.79	1.95
<b>Solvency (end of year at cost)</b>						
Number of sole proprietors	66	12	14	8	20	12
Total assets	2,876,312	1,519,964	2,277,384	2,785,080	3,978,137	3,155,856
Total liabilities	1,353,036	983,577	1,426,964	1,351,357	2,074,921	434,225
Net worth	1,523,276	536,387	850,420	1,433,723	1,903,216	2,721,631
Net worth change	49,016	74,408	43,533	122,305	16,076	36,065
Farm debt to asset ratio	50 %	65 %	64 %	52 %	56 %	16 %
Total debt to asset ratio	47 %	65 %	63 %	49 %	52 %	14 %
Change in earned net worth %	3 %	16 %	5 %	9 %	1 %	1 %
<b>Nonfarm Information</b>						
Net nonfarm income	40,097	55,433	54,973	29,543	33,977	31,634
Farms reporting living expenses	13	-	3	-	3	7
Total family living expense	63,344	-	-	-	-	55,881
<b>Crop Acres</b>						
Total crop acres	2,684	1,578	1,844	2,428	3,980	2,561
Total crop acres owned	660	300	303	446	972	940
Total crop acres cash rented	1,974	1,260	1,511	1,930	2,975	1,507
Total crop acres share rented	50	18	29	52	33	114
Machinery value per crop acre	326	192	230	266	330	480

**Financial Summary**  
**North Dakota Farm Business Management Education Program**  
**Region 3 - South Central North Dakota, 2019**  
**(Farms Sorted By Farm Type)**

	<u>Avg. Of All Farms</u>	<u>Crop</u>	<u>Beef</u>	<u>Crop and Beef</u>	<u>Other</u>
Number of farms	76	47	6	9	13
<b>Income Statement</b>					
Gross cash farm income	1,224,521	1,337,855	274,339	581,187	1,319,199
Total cash farm expense	1,005,133	1,068,156	183,118	444,623	1,104,777
Net cash farm income	219,388	269,700	91,221	136,564	214,422
Inventory change	-2,218	36,035	-124,122	-65,169	-111,185
Depreciation	-107,717	-134,929	-17,812	-41,407	-70,226
Net farm income from operations	109,453	170,806	-50,713	29,988	33,012
Gain or loss on capital sales	6,230	9,704	126	-1,038	1,999
Average net farm income	115,683	180,510	-50,587	28,951	35,010
Median net farm income	36,880	70,372	-7,089	29,685	12,829
<b>Profitability (cost)</b>					
Rate of return on assets	3.1 %	3.8 %	-5.7 %	0.6 %	2.2 %
Rate of return on equity	1.6 %	3.1 %	-20.9 %	-1.5 %	-1.3 %
Operating profit margin	9.6 %	12.0 %	-46.2 %	2.3 %	6.4 %
Asset turnover rate	31.9 %	31.7 %	12.3 %	26.2 %	33.9 %
<b>Liquidity &amp; Repayment (end of year)</b>					
Current assets	762,638	918,680	157,669	468,839	778,336
Current liabilities	507,565	626,007	197,704	338,493	404,362
Current ratio	1.50	1.47	0.80	1.39	1.92
Working capital	255,073	292,673	-40,034	130,347	373,974
Change in working capital	1,659	13,755	-58,812	-43,899	26,749
Working capital to gross inc	27.5 %	27.8 %	-25.7 %	25.1 %	30.8 %
Term debt coverage ratio	1.70	2.08	-0.35	0.69	1.10
Replacement coverage ratio	1.07	1.27	-0.32	0.46	0.67
Term debt to EBITDA	2.85	2.43	-39.29	3.24	3.97
<b>Solvency (end of year at cost)</b>					
Number of sole proprietors	66	39	6	9	12
Total assets	2,876,312	3,402,584	1,125,683	1,904,444	2,770,145
Total liabilities	1,353,036	1,697,967	597,181	708,927	1,093,022
Net worth	1,523,276	1,704,617	528,501	1,195,517	1,677,123
Net worth change	49,016	71,042	-10,737	-25,469	63,176
Farm debt to asset ratio	50 %	53 %	61 %	39 %	45 %
Total debt to asset ratio	47 %	50 %	53 %	37 %	39 %
Change in earned net worth %	3 %	4 %	-2 %	-2 %	4 %
<b>Nonfarm Information</b>					
Net nonfarm income	40,097	46,493	42,459	17,314	34,742
Farms reporting living expenses	13	5	2	2	4
Total family living expense	63,344	69,822	-	-	-
<b>Crop Acres</b>					
Total crop acres	2,684	3,460	491	1,264	1,494
Total crop acres owned	660	822	120	509	401
Total crop acres cash rented	1,974	2,585	342	648	1,082
Total crop acres share rented	50	53	28	106	10
Machinery value per crop acre	326	323	278	272	407

## EXPLANATORY NOTES FOR CROPS TABLES

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

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

Market Facilitation Payments, a 2019 USDA FSA program for commodities directly impacted by retaliatory tariffs, are included under "Other crop income per acre." "Government payments" are Agricultural Risk Coverage (ARC) and Price Loss Coverage (PLC) payments.

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.

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**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education Program**  
**Region 3 - South Central North Dakota, 2019**  
**(Farms Sorted By Net Return)**

**Beans, Pinto on Owned Land**

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	<u><b>Avg. Of All Farms</b></u>
Number of farms	6
Acres	218.18
Yield per acre (cwt.)	13.23
Operators share of yield %	100.00
Value per cwt.	23.91
Total product return per acre	316.38
Crop insurance per acre	51.11
Other crop income per acre	35.44
Gross return per acre	402.94
<b>Direct Expenses</b>	
Seed and plants	64.94
Fertilizer	23.21
Crop chemicals	44.45
Crop insurance	16.22
Fuel & oil	13.47
Repairs	31.76
Custom hire	10.48
Machinery leases	3.04
Operating interest	14.24
Miscellaneous	1.72
Total direct expenses per acre	223.54
Return over direct exp per acre	179.40
<b>Overhead Expenses</b>	
Hired labor	8.13
Building leases	0.55
RE & pers. property taxes	6.03
Farm insurance	4.48
Utilities	3.96
Dues & professional fees	3.14
Interest	70.34
Mach & bldg depreciation	30.71
Miscellaneous	3.87
Total overhead expenses per acre	131.21
Total dir & ovhd expenses per acre	354.75
Net return per acre	48.19
Government payments	6.79
Net return with govt pmts	54.98
Labor & management charge	28.03
Net return over lbr & mgt	26.95
<b>Cost of Production</b>	
Total direct expense per cwt.	16.89
Total dir & ovhd exp per cwt.	26.80
Less govt & other income	19.75
With labor & management	21.87
Net value per unit	23.91
Machinery cost per acre	93.20
Est. labor hours per acre	1.14

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**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education Program**  
**Region 3 - South Central North Dakota, 2019**  
**(Farms Sorted By Net Return)**

**Beans, Pinto on Cash Rent**

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	<u>Avg. Of All Farms</u>
Number of farms	10
Acres	586.89
Yield per acre (cwt.)	15.82
Operators share of yield %	100.00
Value per cwt.	24.53
Total product return per acre	388.10
Crop insurance per acre	19.21
Other crop income per acre	61.35
Gross return per acre	468.66
<b>Direct Expenses</b>	
Seed and plants	61.51
Fertilizer	56.03
Crop chemicals	45.25
Crop insurance	18.47
Fuel & oil	11.91
Repairs	36.69
Custom hire	3.74
Land rent	73.89
Machinery leases	2.24
Operating interest	18.81
Miscellaneous	2.13
Total direct expenses per acre	330.67
Return over direct exp per acre	137.99
<b>Overhead Expenses</b>	
Hired labor	21.73
Machinery leases	15.25
Building leases	0.16
Farm insurance	4.89
Utilities	4.58
Dues & professional fees	1.69
Interest	7.25
Mach & bldg depreciation	34.94
Miscellaneous	10.25
Total overhead expenses per acre	100.73
Total dir & ovhd expenses per acre	431.39
Net return per acre	37.26
Government payments	4.37
Net return with govt pmts	41.63
Labor & management charge	30.44
Net return over lbr & mgt	11.19
<b>Cost of Production</b>	
Total direct expense per cwt.	20.90
Total dir & ovhd exp per cwt.	27.27
Less govt & other income	21.90
With labor & management	23.82
Net value per unit	24.53
Machinery cost per acre	105.95
Est. labor hours per acre	1.34

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**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education Program**  
**Region 3 - South Central North Dakota, 2019**  
**(Farms Sorted By Net Return)**

**Canola on Cash Rent**

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	<u><b>Avg. Of All Farms</b></u>
Number of farms	6
Acres	455.76
Yield per acre (cwt.)	12.28
Operators share of yield %	100.00
Value per cwt.	15.28
Total product return per acre	187.61
Crop insurance per acre	64.88
Other crop income per acre	31.11
Gross return per acre	283.60
<b>Direct Expenses</b>	
Seed and plants	47.52
Fertilizer	68.68
Crop chemicals	28.03
Crop insurance	8.66
Fuel & oil	11.25
Repairs	15.02
Custom hire	5.56
Hired labor	3.44
Land rent	48.97
Operating interest	4.11
Miscellaneous	1.58
Total direct expenses per acre	242.83
Return over direct exp per acre	40.77
<b>Overhead Expenses</b>	
Hired labor	5.95
Machinery leases	2.00
Building leases	0.32
Farm insurance	4.22
Utilities	3.46
Dues & professional fees	1.56
Interest	1.89
Mach & bldg depreciation	34.33
Miscellaneous	5.76
Total overhead expenses per acre	59.50
Total dir & ovhd expenses per acre	302.33
Net return per acre	-18.73
Government payments	9.89
Net return with govt pmts	-8.83
Labor & management charge	21.62
Net return over lbr & mgt	-30.45
<b>Cost of Production</b>	
Total direct expense per cwt.	19.78
Total dir & ovhd exp per cwt.	24.62
Less govt & other income	16.00
With labor & management	17.76
Net value per unit	15.28
Machinery cost per acre	65.75
Est. labor hours per acre	0.82

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**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education Program**  
**Region 3 - South Central North Dakota, 2019**  
**(Farms Sorted By Net Return)**

**Corn on Owned Land**

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	<u><b>Avg. Of All Farms</b></u>
Number of farms	17
Acres	202.23
Yield per acre (bu.)	137.12
Operator's share of yield %	100.00
Value per bu.	3.13
Total product return per acre	429.58
Hedging gains/losses per acre	3.69
Crop insurance per acre	2.54
Other crop income per acre	38.19
Gross return per acre	474.00
<b>Direct Expenses</b>	
Seed and plants	75.51
Fertilizer	88.15
Crop chemicals	25.21
Crop insurance	14.34
Drying expense	5.19
Fuel & oil	16.00
Repairs	35.15
Custom hire	9.07
Hired labor	0.76
Machinery leases	1.85
Operating interest	15.89
Miscellaneous	1.18
Total direct expenses per acre	288.30
Return over direct exp per acre	185.70
<b>Overhead Expenses</b>	
Hired labor	10.05
Machinery leases	0.40
Building leases	0.07
RE & pers. property taxes	7.79
Farm insurance	4.00
Utilities	5.32
Dues & professional fees	1.74
Interest	49.98
Mach & bldg depreciation	50.43
Miscellaneous	4.11
Total overhead expenses per acre	133.88
Total dir & ovhd expenses per acre	422.19
Net return per acre	51.82
Government payments	4.39
Net return with govt pmts	56.21
Labor & management charge	33.52
Net return over lbr & mgt	22.68
<b>Cost of Production</b>	
Total direct expense per bu.	2.10
Total dir & ovhd exp per bu.	3.08
Less govt & other income	2.72
With labor & management	2.97
Net value per unit	3.16
Machinery cost per acre	110.11
Est. labor hours per acre	1.59

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**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education Program**  
**Region 3 - South Central North Dakota, 2019**  
**(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	28	5	5	6
Acres	641.66	579.73	1,059.82	826.24
Yield per acre (bu.)	144.49	124.88	146.36	167.28
Operators share of yield %	100.00	100.00	100.00	100.00
Value per bu.	3.23	3.18	3.23	3.26
Total product return per acre	466.80	396.87	472.45	545.10
Hedging gains/losses per acre	6.79	-	-	-
Crop insurance per acre	7.30	14.15	12.43	4.03
Other crop income per acre	41.08	47.75	32.33	45.93
Gross return per acre	521.98	458.78	517.20	595.06
<b>Direct Expenses</b>				
Seed and plants	80.04	87.12	75.04	87.44
Fertilizer	98.60	114.06	102.39	103.25
Crop chemicals	21.28	25.24	24.01	17.06
Crop insurance	14.76	21.05	16.35	9.64
Drying expense	6.56	6.47	17.51	0.81
Fuel & oil	19.68	21.28	15.95	22.53
Repairs	34.09	50.22	38.57	30.31
Custom hire	6.35	6.28	5.79	8.54
Land rent	77.14	109.00	78.25	67.75
Machinery leases	3.67	11.14	2.01	-
Operating interest	11.45	17.55	17.03	4.28
Miscellaneous	1.52	2.52	-	2.09
Total direct expenses per acre	375.14	471.92	392.92	353.70
Return over direct exp per acre	146.83	-13.14	124.29	241.35
<b>Overhead Expenses</b>				
Custom hire	0.16	0.56	0.00	0.00
Hired labor	22.21	27.16	23.26	21.30
Machinery leases	7.54	12.08	10.95	0.99
Farm insurance	4.71	5.31	5.17	4.52
Utilities	5.61	9.77	6.63	3.38
Dues & professional fees	2.23	3.32	0.74	4.94
Interest	3.03	7.44	2.37	1.99
Mach & bldg depreciation	45.12	51.54	32.59	54.43
Miscellaneous	9.07	2.92	21.59	4.92
Total overhead expenses per acre	99.68	120.08	103.30	96.46
Total dir & ovhd expenses per acre	474.82	592.00	496.22	450.17
Net return per acre	47.16	-133.23	20.98	144.89
Government payments	7.18	10.21	2.23	8.89
Net return with govt pmts	54.34	-123.02	23.22	153.78
Labor & management charge	34.57	50.64	31.17	29.22
Net return over lbr & mgt	19.76	-173.66	-7.96	124.55
<b>Cost of Production</b>				
Total direct expense per bu.	2.60	3.78	2.68	2.11
Total dir & ovhd exp per bu.	3.29	4.74	3.39	2.69
Less govt & other income	2.85	4.16	3.07	2.34
With labor & management	3.09	4.57	3.28	2.51
Net value per unit	3.28	3.18	3.23	3.26
Machinery cost per acre	114.44	151.58	104.65	112.75
Est. labor hours per acre	1.49	2.10	1.32	1.01

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**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education Program**  
**Region 3 - South Central North Dakota, 2019**  
**(Farms Sorted By Net Return)**

**Corn Silage on Cash Rent**

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	<u><b>Avg. Of All Farms</b></u>
Number of farms	6
Acres	89.33
Yield per acre (ton)	16.14
Operators share of yield %	100.00
Value per ton	34.57
Total product return per acre	557.81
Crop insurance per acre	1.31
Other crop income per acre	46.42
Gross return per acre	605.54
<b>Direct Expenses</b>	
Seed and plants	89.30
Fertilizer	87.25
Crop chemicals	20.13
Crop insurance	12.91
Fuel & oil	30.10
Repairs	35.59
Custom hire	35.46
Land rent	76.73
Operating interest	10.02
Miscellaneous	0.26
Total direct expenses per acre	397.74
Return over direct exp per acre	207.80
<b>Overhead Expenses</b>	
Hired labor	21.85
Machinery leases	0.59
Farm insurance	4.74
Utilities	3.79
Dues & professional fees	5.21
Interest	4.08
Mach & bldg depreciation	56.01
Miscellaneous	4.36
Total overhead expenses per acre	100.62
Total dir & ovhd expenses per acre	498.36
Net return per acre	107.18
Government payments	5.51
Net return with govt pmts	112.69
Labor & management charge	35.54
Net return over lbr & mgt	77.15
<b>Cost of Production</b>	
Total direct expense per ton	24.65
Total dir & ovhd exp per ton	30.88
Less govt & other income	27.58
With labor & management	29.79
Net value per unit	34.57
Machinery cost per acre	156.40
Est. labor hours per acre	1.99

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**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education Program**  
**Region 3 - South Central North Dakota, 2019**  
**(Farms Sorted By Net Return)**

**CRP on Owned Land**

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	<u>Avg. Of All Farms</u>
Number of farms	10
Acres	161.96
Gross return per acre	59.73
<b>Direct Expenses</b>	
Crop chemicals	0.44
Fuel & oil	0.59
Repairs	1.80
Operating interest	0.15
Total direct expenses per acre	2.98
Return over direct exp per acre	56.75
<b>Overhead Expenses</b>	
Hired labor	0.67
Machinery leases	0.45
RE & pers. property taxes	7.71
Farm insurance	1.23
Utilities	0.76
Dues & professional fees	0.51
Interest	17.50
Mach & bldg depreciation	6.64
Miscellaneous	0.47
Total overhead expenses per acre	35.93
Total dir & ovhd expenses per acre	38.92
Net return per acre	20.82

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**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education Program**  
**Region 3 - South Central North Dakota, 2019**  
**(Farms Sorted By Net Return)**

**Hay, Alfalfa on Cash Rent**

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	<u>Avg. Of All Farms</u>
Number of farms	5
Acres	114.00
Yield per acre (ton)	3.58
Operators share of yield %	100.00
Value per ton	86.60
Total product return per acre	310.08
Other crop income per acre	32.89
Gross return per acre	342.96
<b>Direct Expenses</b>	
Fuel & oil	13.54
Repairs	19.98
Custom hire	2.11
Hired labor	0.39
Land rent	63.73
Machinery leases	0.88
Operating interest	1.60
Miscellaneous	5.07
Total direct expenses per acre	107.29
Return over direct exp per acre	235.67
<b>Overhead Expenses</b>	
Hired labor	9.95
Machinery leases	0.50
Farm insurance	4.93
Utilities	3.66
Dues & professional fees	4.23
Interest	0.39
Mach & bldg depreciation	37.73
Miscellaneous	4.10
Total overhead expenses per acre	65.50
Total dir & ovhd expenses per acre	172.79
Net return per acre	170.17
Government payments	6.81
Net return with govt pmts	176.98
Labor & management charge	19.33
Net return over lbr & mgt	157.65
<b>Cost of Production</b>	
Total direct expense per ton	29.96
Total dir & ovhd exp per ton	48.26
Less govt & other income	37.17
With labor & management	42.57
Net value per unit	86.60
Machinery cost per acre	70.17
Est. labor hours per acre	0.77

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**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education Program**  
**Region 3 - South Central North Dakota, 2019**  
**(Farms Sorted By Net Return)**

**Hay, Grass on Cash Rent**

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	<u><b>Avg. Of All Farms</b></u>
Number of farms	9
Acres	469.89
Yield per acre (ton)	0.98
Operators share of yield %	100.00
Value per ton	66.91
Total product return per acre	65.54
Other crop income per acre	2.93
Gross return per acre	68.47
<b>Direct Expenses</b>	
Seed and plants	1.18
Fertilizer	2.74
Crop chemicals	0.03
Fuel & oil	7.61
Repairs	11.37
Custom hire	0.23
Land rent	17.62
Operating interest	4.58
Miscellaneous	0.87
Total direct expenses per acre	46.23
Return over direct exp per acre	22.24
<b>Overhead Expenses</b>	
Hired labor	7.21
Machinery leases	0.07
Farm insurance	1.20
Utilities	1.02
Dues & professional fees	0.82
Interest	1.21
Mach & bldg depreciation	11.68
Miscellaneous	2.57
Total overhead expenses per acre	25.80
Total dir & ovhd expenses per acre	72.03
Net return per acre	-3.56
Government payments	1.10
Net return with govt pmts	-2.46
Labor & management charge	8.82
Net return over lbr & mgt	-11.28
<b>Cost of Production</b>	
Total direct expense per ton	47.20
Total dir & ovhd exp per ton	73.54
Less govt & other income	69.42
With labor & management	78.43
Net value per unit	66.91
Machinery cost per acre	31.39
Est. labor hours per acre	1.01

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**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education Program**  
**Region 3 - South Central North Dakota, 2019**  
**(Farms Sorted By Net Return)**

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

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	<u><b>Avg. Of All Farms</b></u>
Number of farms	6
Acres	165.13
Yield per acre (ton)	1.82
Operators share of yield %	100.00
Value per ton	59.62
Other product return per acre	4.82
Total product return per acre	113.29
Gross return per acre	113.29
<b>Direct Expenses</b>	
Seed and plants	1.33
Fertilizer	5.00
Crop chemicals	0.28
Cover crop expense	0.16
Fuel & oil	7.22
Repairs	13.79
Machinery leases	0.34
Operating interest	2.81
Miscellaneous	6.17
Total direct expenses per acre	37.10
Return over direct exp per acre	76.18
<b>Overhead Expenses</b>	
Hired labor	3.84
Machinery leases	0.26
RE & pers. property taxes	7.25
Farm insurance	3.27
Utilities	2.98
Dues & professional fees	1.71
Interest	17.29
Mach & bldg depreciation	15.49
Miscellaneous	2.08
Total overhead expenses per acre	54.17
Total dir & ovhd expenses per acre	91.28
Net return per acre	22.01
Government payments	4.40
Net return with govt pmts	26.41
Labor & management charge	13.62
Net return over lbr & mgt	12.78
<b>Cost of Production</b>	
Total direct expense per ton	20.39
Total dir & ovhd exp per ton	50.17
Less govt & other income	45.10
With labor & management	52.59
Net value per unit	59.62
Machinery cost per acre	36.40
Est. labor hours per acre	1.14

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**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education Program**  
**Region 3 - South Central North Dakota, 2019**  
**(Farms Sorted By Net Return)**

**Hay, Small Grain on Cash Rent**

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	<u><b>Avg. Of All Farms</b></u>
Number of farms	5
Acres	52.20
Yield per acre (ton)	2.41
Operators share of yield %	100.00
Value per ton	75.50
Total product return per acre	182.11
Other crop income per acre	18.45
Gross return per acre	200.56
<b>Direct Expenses</b>	
Seed and plants	12.12
Fertilizer	27.83
Crop chemicals	12.65
Fuel & oil	8.92
Repairs	23.35
Custom hire	17.59
Land rent	55.85
Operating interest	3.51
Miscellaneous	2.34
Total direct expenses per acre	164.16
Return over direct exp per acre	36.40
<b>Overhead Expenses</b>	
Hired labor	3.11
Machinery leases	0.07
Farm insurance	2.60
Utilities	2.99
Dues & professional fees	0.67
Interest	2.26
Mach & bldg depreciation	24.87
Miscellaneous	2.65
Total overhead expenses per acre	39.23
Total dir & ovhd expenses per acre	203.39
Net return per acre	-2.83
Government payments	13.71
Net return with govt pmts	10.89
Labor & management charge	16.94
Net return over lbr & mgt	-6.05
<b>Cost of Production</b>	
Total direct expense per ton	68.06
Total dir & ovhd exp per ton	84.32
Less govt & other income	70.98
With labor & management	78.00
Net value per unit	75.50
Machinery cost per acre	75.63
Est. labor hours per acre	1.11

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**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education Program**  
**Region 3 - South Central North Dakota, 2019**  
**(Farms Sorted By Net Return)**

**Pasture on Owned Land**

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	<u>Avg. Of All Farms</u>
Number of farms	20
Acres	501.84
Yield per acre (aum)	1.12
Operators share of yield %	100.00
Value per aum	23.21
Total product return per acre	25.94
Crop insurance per acre	0.00
Gross return per acre	25.94
<b>Direct Expenses</b>	
Repairs	0.94
Hired labor	0.60
Miscellaneous	0.96
Total direct expenses per acre	2.50
Return over direct exp per acre	23.44
<b>Overhead Expenses</b>	
RE & pers. property taxes	3.50
Interest	12.96
Mach & bldg depreciation	0.87
Miscellaneous	0.94
Total overhead expenses per acre	18.27
Total dir & ovhd expenses per acre	20.77
Net return per acre	5.17



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**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education Program**  
**Region 3 - South Central North Dakota, 2019**  
**(Farms Sorted By Net Return)**

**Pasture on Cash Rent**

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	<u><b>Avg. Of All Farms</b></u>
Number of farms	20
Acres	1,192.44
Yield per acre (aum)	1.12
Operators share of yield %	100.00
Value per aum	22.94
Total product return per acre	25.79
Crop insurance per acre	0.00
Gross return per acre	25.79
<b>Direct Expenses</b>	
Crop insurance	0.11
Fuel & oil	0.52
Repairs	1.14
Hired labor	0.26
Land rent	16.96
Miscellaneous	0.33
Total direct expenses per acre	19.30
Return over direct exp per acre	6.49
<b>Overhead Expenses</b>	
Dues & professional fees	0.16
Mach & bldg depreciation	0.67
Miscellaneous	0.76
Total overhead expenses per acre	1.59
Total dir & ovhd expenses per acre	20.89
Net return per acre	4.90

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**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education Program**  
**Region 3 - South Central North Dakota, 2019**  
**(Farms Sorted By Net Return)**

**Prevented Planting on Cash Rent**

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	<u><b>Avg. Of All Farms</b></u>
Number of farms	9
Acres	175.62
Yield per acre	-
Operators share of yield %	-
Value per 0	-
Total product return per acre	-
Crop insurance per acre	208.51
Other crop income per acre	10.21
Gross return per acre	218.72
<b>Direct Expenses</b>	
Seed and plants	8.56
Fertilizer	1.96
Crop chemicals	2.16
Crop insurance	25.74
Fuel & oil	5.12
Repairs	10.06
Land rent	95.53
Operating interest	2.20
Miscellaneous	0.48
Total direct expenses per acre	151.81
Return over direct exp per acre	66.90
<b>Overhead Expenses</b>	
Hired labor	7.49
Machinery leases	0.79
Building leases	0.48
Farm insurance	3.93
Utilities	3.20
Dues & professional fees	3.38
Interest	1.95
Mach & bldg depreciation	11.29
Miscellaneous	2.06
Total overhead expenses per acre	34.58
Total dir & ovhd expenses per acre	186.39
Net return per acre	32.32
Government payments	3.21
Net return with govt pmts	35.53
Labor & management charge	10.03
Net return over lbr & mgt	25.49
Net value per unit	-
Machinery cost per acre	29.10
Est. labor hours per acre	0.48

**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education Program**  
**Region 3 - South Central North Dakota, 2019**  
**(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	28	5	5	6
Acres	448.62	489.87	258.60	264.08
Yield per acre (bu.)	37.15	36.22	36.40	43.91
Operators share of yield %	100.00	100.00	100.00	100.00
Value per bu.	8.07	8.12	8.07	8.06
Total product return per acre	299.76	294.20	293.77	353.81
Hedging gains/losses per acre	0.01	0.06	-	-
Crop insurance per acre	21.02	15.53	1.45	48.74
Other crop income per acre	40.47	40.53	38.74	50.71
Gross return per acre	361.26	350.31	333.96	453.27
<b>Direct Expenses</b>				
Seed and plants	60.48	69.70	60.49	63.82
Fertilizer	10.92	8.42	13.20	13.73
Crop chemicals	29.71	31.23	22.70	28.43
Crop insurance	12.82	15.56	9.80	17.83
Drying expense	0.55	1.01	0.24	-
Fuel & oil	14.36	14.46	14.52	15.04
Repairs	25.49	32.60	27.51	26.34
Custom hire	3.01	0.35	7.48	5.53
Hired labor	0.97	1.53	1.15	-
Machinery leases	1.50	-	-	1.85
Operating interest	8.32	10.96	8.68	7.46
Miscellaneous	1.63	4.82	-	-
Total direct expenses per acre	169.75	190.64	165.77	180.03
Return over direct exp per acre	191.51	159.67	168.19	273.24
<b>Overhead Expenses</b>				
Hired labor	8.35	3.82	4.75	13.95
Machinery leases	2.54	4.51	3.04	0.48
RE & pers. property taxes	8.26	8.51	12.03	7.30
Farm insurance	4.96	6.95	4.38	6.47
Utilities	4.13	3.81	4.81	3.90
Dues & professional fees	1.29	0.86	1.32	2.04
Interest	42.07	69.35	30.75	25.76
Mach & bldg depreciation	41.72	58.82	28.47	32.91
Miscellaneous	6.23	8.27	2.75	2.04
Total overhead expenses per acre	119.54	164.92	92.30	94.84
Total dir & ovhd expenses per acre	289.29	355.56	258.07	274.87
Net return per acre	71.97	-5.24	75.89	178.40
Government payments	10.44	8.01	8.95	5.82
Net return with govt pmts	82.41	2.76	84.84	184.22
Labor & management charge	27.64	32.39	29.95	27.30
Net return over lbr & mgt	54.77	-29.63	54.89	156.92
<b>Cost of Production</b>				
Total direct expense per bu.	4.57	5.26	4.55	4.10
Total dir & ovhd exp per bu.	7.79	9.82	7.09	6.26
Less govt & other income	5.85	8.05	5.74	3.86
With labor & management	6.59	8.94	6.56	4.48
Net value per unit	8.07	8.13	8.07	8.06
Machinery cost per acre	87.93	111.63	80.51	82.82
Est. labor hours per acre	1.07	1.04	1.32	1.33

**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education Program**  
**Region 3 - South Central North Dakota, 2019**  
**(Farms Sorted By Net Return)**

**Soybeans on Cash Rent**

	<u>Avg. Of</u> <u>All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	39	7	8	8
Acres	936.65	521.98	2,158.38	548.13
Yield per acre (bu.)	37.79	34.69	38.83	41.16
Operators share of yield %	100.00	100.00	100.00	100.00
Value per bu.	8.12	8.14	8.06	8.27
Total product return per acre	306.84	282.55	313.17	340.44
Hedging gains/losses per acre	0.04	0.37	-	-
Crop insurance per acre	11.11	9.62	5.62	23.25
Other crop income per acre	38.31	46.78	37.22	42.77
Gross return per acre	356.29	339.32	356.01	406.46
<b>Direct Expenses</b>				
Seed and plants	62.13	56.02	66.11	58.81
Fertilizer	7.24	4.13	8.12	4.13
Crop chemicals	27.90	32.99	29.12	24.19
Crop insurance	10.89	20.60	7.86	13.35
Drying expense	0.28	0.95	0.02	0.37
Fuel & oil	12.10	14.80	11.79	11.68
Repairs	19.88	28.40	16.95	21.53
Custom hire	3.38	1.55	4.43	3.20
Hired labor	0.65	-	0.96	-
Land rent	67.00	90.38	66.13	65.92
Machinery leases	1.78	0.27	1.45	0.77
Operating interest	8.17	11.03	10.18	2.68
Miscellaneous	1.31	2.27	1.18	0.86
Total direct expenses per acre	222.71	263.39	224.31	207.50
Return over direct exp per acre	133.57	75.93	131.70	198.96
<b>Overhead Expenses</b>				
Hired labor	9.45	7.08	10.48	14.73
Machinery leases	2.81	5.81	2.39	0.33
Building leases	0.48	0.94	0.56	0.23
Farm insurance	4.83	6.30	5.23	2.43
Utilities	4.25	6.79	3.81	3.91
Dues & professional fees	2.27	2.96	2.60	1.78
Interest	3.30	4.19	3.82	1.31
Mach & bldg depreciation	37.78	52.16	40.27	32.27
Miscellaneous	6.77	5.29	5.80	4.40
Total overhead expenses per acre	71.95	91.52	74.95	61.40
Total dir & ovhd expenses per acre	294.67	354.91	299.26	268.91
Net return per acre	61.62	-15.59	56.75	137.55
Government payments	8.87	10.16	8.98	8.91
Net return with govt pmts	70.50	-5.42	65.73	146.47
Labor & management charge	23.47	36.57	20.57	22.69
Net return over lbr & mgt	47.02	-41.99	45.16	123.78
<b>Cost of Production</b>				
Total direct expense per bu.	5.89	7.59	5.78	5.04
Total dir & ovhd exp per bu.	7.80	10.23	7.71	6.53
Less govt & other income	6.25	8.30	6.37	4.71
With labor & management	6.88	9.35	6.90	5.26
Net value per unit	8.12	8.15	8.06	8.27
Machinery cost per acre	76.44	100.97	75.99	68.30
Est. labor hours per acre	0.91	1.34	0.82	1.04

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**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education Program**  
**Region 3 - South Central North Dakota, 2019**  
**(Farms Sorted By Net Return)**

**Wheat, Durum on Cash Rent**

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	<u><b>Avg. Of All Farms</b></u>
Number of farms	6
Acres	548.71
Yield per acre (bu.)	59.24
Operators share of yield %	100.00
Value per bu.	6.31
Other product return per acre	3.08
Total product return per acre	377.12
Crop insurance per acre	23.88
Other crop income per acre	37.56
Gross return per acre	438.56
<b>Direct Expenses</b>	
Seed and plants	21.08
Fertilizer	71.18
Crop chemicals	38.63
Crop insurance	13.75
Drying expense	2.81
Fuel & oil	12.14
Repairs	22.97
Custom hire	3.22
Hired labor	0.45
Land rent	52.74
Machinery leases	0.77
Operating interest	7.18
Total direct expenses per acre	246.93
Return over direct exp per acre	191.63
<b>Overhead Expenses</b>	
Hired labor	9.80
Farm insurance	4.26
Utilities	3.45
Dues & professional fees	2.20
Interest	5.21
Mach & bldg depreciation	35.93
Miscellaneous	3.90
Total overhead expenses per acre	64.75
Total dir & ovhd expenses per acre	311.68
Net return per acre	126.88
Government payments	6.85
Net return with govt pmts	133.73
Labor & management charge	23.10
Net return over lbr & mgt	110.62
<b>Cost of Production</b>	
Total direct expense per bu.	4.17
Total dir & ovhd exp per bu.	5.26
Less govt & other income	4.06
With labor & management	4.45
Net value per unit	6.31
Machinery cost per acre	76.12
Est. labor hours per acre	0.99

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**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education Program**  
**Region 3 - South Central North Dakota, 2019**  
**(Farms Sorted By Net Return)**

**Wheat, Spring on Owned Land**

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	<u>Avg. Of All Farms</u>
Number of farms	23
Acres	479.94
Yield per acre (bu.)	57.97
Operators share of yield %	100.00
Value per bu.	5.01
Other product return per acre	1.21
Total product return per acre	291.72
Crop insurance per acre	32.59
Other crop income per acre	34.58
Gross return per acre	358.89
<b>Direct Expenses</b>	
Seed and plants	16.25
Fertilizer	66.35
Crop chemicals	31.85
Cover crop expense	0.19
Crop insurance	14.31
Drying expense	0.44
Fuel & oil	12.25
Repairs	19.82
Custom hire	5.97
Hired labor	1.18
Machinery leases	0.66
Operating interest	8.08
Miscellaneous	2.15
Total direct expenses per acre	179.50
Return over direct exp per acre	179.38
<b>Overhead Expenses</b>	
Hired labor	5.90
Machinery leases	2.24
Building leases	0.42
RE & pers. property taxes	7.35
Farm insurance	4.33
Utilities	3.89
Dues & professional fees	1.81
Interest	32.93
Mach & bldg depreciation	38.42
Miscellaneous	5.90
Total overhead expenses per acre	103.20
Total dir & ovhd expenses per acre	282.70
Net return per acre	76.19
Government payments	10.15
Net return with govt pmts	86.33
Labor & management charge	24.58
Net return over lbr & mgt	61.75
<b>Cost of Production</b>	
Total direct expense per bu.	3.10
Total dir & ovhd exp per bu.	4.88
Less govt & other income	3.52
With labor & management	3.95
Net value per unit	5.01
Machinery cost per acre	77.79
Est. labor hours per acre	0.90

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**Crop Enterprise Analysis**  
**North Dakota Farm Business Management Education Program**  
**Region 3 - South Central North Dakota, 2019**  
**(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	33	6	6	7
Acres	896.28	381.18	1,302.28	1,685.47
Yield per acre (bu.)	58.61	51.69	52.37	66.56
Operators share of yield %	100.00	100.00	100.00	100.00
Value per bu.	5.05	4.83	5.05	5.13
Other product return per acre	1.20	-	-	-
Total product return per acre	297.17	249.88	264.38	341.62
Hedging gains/losses per acre	0.07	0.85	-	-
Crop insurance per acre	26.49	19.56	28.98	30.25
Other crop income per acre	36.49	44.91	35.60	32.34
Gross return per acre	360.23	315.20	328.95	404.20
<b>Direct Expenses</b>				
Seed and plants	17.05	21.29	15.33	15.58
Fertilizer	65.99	81.37	69.00	62.05
Crop chemicals	31.51	36.16	31.29	32.11
Cover crop expense	0.20	0.07	0.73	-
Crop insurance	13.23	13.84	13.12	14.42
Drying expense	0.20	1.31	-	0.18
Fuel & oil	11.02	12.52	8.00	11.54
Repairs	21.09	36.95	21.12	17.96
Custom hire	4.74	8.73	7.44	1.98
Hired labor	1.73	-	3.71	1.88
Land rent	59.73	69.83	58.38	59.29
Machinery leases	2.01	0.31	2.47	0.36
Operating interest	8.05	6.61	10.66	7.19
Miscellaneous	1.63	0.65	0.31	3.38
Total direct expenses per acre	238.18	289.64	241.57	227.93
Return over direct exp per acre	122.04	25.55	87.38	176.27
<b>Overhead Expenses</b>				
Hired labor	8.59	10.44	6.80	7.05
Machinery leases	1.76	5.07	1.38	0.86
Building leases	0.42	0.63	-	0.82
Farm insurance	4.89	8.85	3.93	5.10
Utilities	4.29	7.39	4.43	3.93
Dues & professional fees	1.61	3.26	0.14	2.54
Interest	3.20	2.79	3.32	3.14
Mach & bldg depreciation	34.15	48.02	27.05	39.33
Miscellaneous	5.80	6.15	6.46	6.05
Total overhead expenses per acre	64.71	92.60	53.50	68.83
Total dir & ovhd expenses per acre	302.89	382.24	295.08	296.76
Net return per acre	57.34	-67.04	33.88	107.44
Government payments	8.39	13.46	6.15	9.49
Net return with govt pmts	65.73	-53.59	40.02	116.93
Labor & management charge	21.88	27.14	19.34	22.14
Net return over lbr & mgt	43.85	-80.73	20.68	94.78
<b>Cost of Production</b>				
Total direct expense per bu.	4.06	5.60	4.61	3.42
Total dir & ovhd exp per bu.	5.17	7.39	5.63	4.46
Less govt & other income	3.93	5.87	4.28	3.38
With labor & management	4.30	6.40	4.65	3.71
Net value per unit	5.05	4.85	5.05	5.13
Machinery cost per acre	73.67	107.59	67.04	69.65
Est. labor hours per acre	0.94	1.65	0.78	0.83

## EXPLANATORY NOTES FOR LIVESTOCK TABLES

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

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

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

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

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

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



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

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

	<u>Avg. Of All Farms</u>	
Number of farms	10	
	Quantity	Value
Beef Calves sold (lb)	35.25	53.05
Transferred out (lb)	64.75	93.32
Cull sales		13.70
Government payments		4.18
Other income		0.59
Purchased		-9.36
Transferred in		-19.35
Inventory change		-12.72
Gross margin		123.40
<b>Direct Expenses</b>		
Protein Vit Minerals (lb.)	15.09	3.92
Corn Silage (lb.)	592.23	9.44
Hay, Alfalfa (lb.)	97.69	4.10
Hay, Grass (lb.)	835.51	24.16
Pasture (aum)	1.34	24.34
Stover (lb.)	100.16	1.50
DDGS, dry (lb.)	40.83	2.02
Other feed stuffs (lb)	204.77	8.63
Veterinary		6.16
Supplies		4.91
Fuel & oil		4.29
Repairs		7.44
Custom hire		1.65
Operating interest		1.84
Total direct expenses		104.40
Return over direct expense		19.01
<b>Overhead Expenses</b>		
Hired labor		5.14
Dues & professional fees		1.42
Mach & bldg depreciation		8.40
Miscellaneous		9.77
Total overhead expenses		24.74
Total dir & ovhd expenses		129.14
Net return		-5.73
Labor & management charge		11.90
Net return over lbr & mgt		-17.63
<b>Cost of Production Per Cwt. Produced</b>		
Total direct expense per unit		104.40
Total dir & ovhd expense per unit		129.14
With other revenue adjustments		152.77
With labor and management		164.66
Est. labor hours per unit		0.84
<b>Other Information</b>		
Number of cows		234.1
Pregnancy percentage		98.0
Pregnancy loss percentage		1.3
Culling percentage		9.4
Calving percentage		96.8
Weaning percentage		92.0
Calves sold per cow		0.95
Calf death loss percent		6.0
Cow death loss percent		1.9
Average weaning weight		544
Lb. weaned/exposed female		500
Feed cost per cow		418.13
Avg wgt/ Beef Calves sold		543
Avg price / cwt.		150.47

**Livestock Enterprise Analysis**  
**North Dakota Farm Business Management Education Program**  
**Region 3 - South Central North Dakota, 2019**  
**(Farms Sorted By Net Return)**

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

	<u>Avg. Of All Farms</u>	
Number of farms	10	
	Quantity	Value
Beef Calves sold (lb)	188.7	283.94
Transferred out (lb)	346.6	499.52
Cull sales		73.35
Government payments		22.37
Other income		3.16
Purchased		-50.10
Transferred in		-103.60
Inventory change		-68.10
Gross margin		660.55
<b>Direct Expenses</b>		
Protein Vit Minerals (lb.)	80.8	20.99
Corn Silage (lb.)	3,170.1	50.55
Hay, Alfalfa (lb.)	522.9	21.93
Hay, Grass (lb.)	4,472.3	129.33
Pasture (aum)	7.1	130.31
Stover (lb.)	536.1	8.04
DDGS, dry (lb.)	218.5	10.80
Other feed stuffs (lb)	1,096.1	46.18
Veterinary		32.98
Supplies		26.26
Fuel & oil		22.96
Repairs		39.82
Custom hire		8.81
Operating interest		9.84
Total direct expenses		558.81
Return over direct expense		101.74
<b>Overhead Expenses</b>		
Hired labor		27.51
Dues & professional fees		7.61
Mach & bldg depreciation		44.98
Miscellaneous		52.32
Total overhead expenses		132.42
Total dir & ovhd expenses		691.23
Net return		-30.68
Labor & management charge		63.68
Net return over lbr & mgt		-94.36
<b>Cost of Production Per Cwt. Produced</b>		
Total direct expense per unit		104.40
Total dir & ovhd expense per unit		129.14
With other revenue adjustments		152.77
With labor and management		164.66
Est. labor hours per unit		4.48
<b>Other Information</b>		
Number of cows		234.1
Pregnancy percentage		98.0
Pregnancy loss percentage		1.3
Culling percentage		9.4
Calving percentage		96.8
Weaning percentage		92.0
Calves sold per cow		0.95
Calf death loss percent		6.0
Cow death loss percent		1.9
Average weaning weight		544
Lb. weaned/exposed female		500
Feed cost per cow		418.13
Avg wgt/ Beef Calves sold		543
Avg price / cwt.		150.47

**Livestock Enterprise Analysis**  
**North Dakota Farm Business Management Education Program**  
**Region 3 - South Central North Dakota, 2019**  
**(Farms Sorted By Net Return)**

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

	<u>Avg. Of All Farms</u>	
Number of farms	11	
	Quantity	Value
Beef Calves sold (lb)	76.81	110.53
Transferred out (lb)	5.55	8.93
Cull sales		23.05
Insurance income		0.75
Other income		4.83
Purchased		-21.42
Transferred in		-9.57
Inventory change		15.40
Gross margin		132.50
<b>Direct Expenses</b>		
Protein Vit Minerals (lb.)	74.59	4.41
Complete Ration (lb.)	34.97	5.52
Corn Silage (lb.)	1,062.37	15.58
Hay, Alfalfa (lb.)	202.44	7.77
Hay, Grass (lb.)	997.50	26.95
Pasture (aum)	1.27	27.70
DDGS, dry (lb.)	263.17	7.72
Other feed stuffs (lb)	90.03	7.58
Veterinary		4.48
Supplies		7.85
Fuel & oil		3.93
Repairs		6.57
Hired labor		4.01
Operating interest		3.57
Total direct expenses		133.64
Return over direct expense		-1.14
<b>Overhead Expenses</b>		
Farm insurance		1.90
Utilities		3.19
Interest		3.88
Mach & bldg depreciation		8.02
Miscellaneous		3.35
Total overhead expenses		20.33
Total dir & ovhd expenses		153.97
Net return		-21.47
Labor & management charge		11.39
Net return over lbr & mgt		-32.85
<b>Cost of Production Per Cwt. Produced</b>		
Total direct expense per unit		133.64
Total dir & ovhd expense per unit		153.97
With other revenue adjustments		163.85
With labor and management		175.24
Est. labor hours per unit		0.94
<b>Other Information</b>		
Number of cows		131.0
Pregnancy percentage		98.0
Pregnancy loss percentage		3.3
Culling percentage		17.0
Calving percentage		94.8
Weaning percentage		91.6
Calves sold per cow		0.69
Calf death loss percent		3.4
Cow death loss percent		1.5
Average weaning weight		518
Lb. weaned/exposed female		475
Feed cost per cow		601.80
Avg wgt/ Beef Calves sold		704
Avg price / cwt.		143.90

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

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

	<u>Avg. Of All Farms</u>	
Number of farms	11	
	Quantity	Value
Beef Calves sold (lb)	447.8	644.37
Transferred out (lb)	32.4	52.05
Cull sales		134.41
Insurance income		4.39
Other income		28.14
Purchased		-124.89
Transferred in		-55.79
Inventory change		89.81
Gross margin		772.48
<b>Direct Expenses</b>		
Protein Vit Minerals (lb.)	434.9	25.71
Complete Ration (lb.)	203.9	32.15
Corn (bu.)	5.2	16.90
Corn Silage (lb.)	6,193.6	90.85
Hay, Alfalfa (lb.)	1,180.2	45.30
Hay, Grass (lb.)	5,815.4	157.12
Pasture (aum)	7.4	161.48
DDGS, dry (lb.)	1,534.3	45.00
Other feed stuffs (lb)	519.7	27.29
Veterinary		26.11
Supplies		50.33
Repairs		38.29
Custom hire		18.39
Hired labor		23.36
Operating interest		20.82
Total direct expenses		779.10
Return over direct expense		-6.62
<b>Overhead Expenses</b>		
Utilities		18.60
Interest		22.61
Mach & bldg depreciation		46.73
Miscellaneous		30.57
Total overhead expenses		118.52
Total dir & ovhd expenses		897.62
Net return		-125.14
Labor & management charge		66.39
Net return over lbr & mgt		-191.53
<b>Cost of Production Per Cwt. Produced</b>		
Total direct expense per unit		133.64
Total dir & ovhd expense per unit		153.97
With other revenue adjustments		163.85
With labor and management		175.24
Est. labor hours per unit		5.47
<b>Other Information</b>		
Number of cows		131.0
Pregnancy percentage		98.0
Pregnancy loss percentage		3.3
Culling percentage		17.0
Calving percentage		94.8
Weaning percentage		91.6
Calves sold per cow		0.69
Calf death loss percent		3.4
Cow death loss percent		1.5
Average weaning weight		518
Lb. weaned/exposed female		475
Feed cost per cow		601.80
Avg wgt/ Beef Calves sold		704
Avg price / cwt.		143.90

**Livestock Enterprise Analysis**  
**North Dakota Farm Business Management Education Program**  
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**(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)	0.44	495.63
Transferred out (hd)	0.65	1,018.52
Government payments		33.64
Transferred in (hd)	0.66	-588.58
Inventory change (hd)	-0.43	-354.17
Gross margin		605.04
<b>Direct Expenses</b>		
Protein Vit Minerals (lb.)	83.41	15.66
Complete Ration (lb.)	81.75	4.33
Corn (bu.)	1.34	4.28
Corn Silage (lb.)	4,844.17	82.89
Hay, Alfalfa (lb.)	275.39	12.30
Hay, Grass (lb.)	2,204.73	68.17
Pasture (aum)	26.98	55.46
Straw (lb.)	315.95	6.35
Other feed stuffs (lb)	10.48	0.86
Breeding fees		11.58
Veterinary		10.67
Supplies		0.72
Fuel & oil		8.43
Repairs		11.94
Custom hire		8.81
Hired labor		2.03
Bedding		6.12
Operating interest		2.45
Total direct expenses		313.04
Return over direct expense		292.00
<b>Overhead Expenses</b>		
Hired labor		12.83
Mach & bldg depreciation		22.66
Miscellaneous		24.15
Total overhead expenses		59.63
Total dir & ovhd expenses		372.67
Net return		232.37
Labor & management charge		29.09
Net return over lbr & mgt		203.28
Est. labor hours per unit		1.25
<b>Other Information</b>		
No. purchased or trans in		52
Number sold or trans out		85
Average number of head		78
Percentage death loss		0.6
Feed cost per average head		250.30
Feed cost/head sold/trans		230.00

**Livestock Enterprise Analysis**  
**North Dakota Farm Business Management Education Program**  
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**Beef Replacement Heifers -- Average Per Head Sold/Trans**

	<u>Avg. Of All Farms</u>	
Number of farms	5	
	Quantity	Value
Beef Replace sold (hd)	0.4	455.43
Transferred out (hd)	0.6	935.92
Government payments		30.91
Transferred in (hd)	0.6	-540.85
Inventory change (hd)	-0.4	-325.45
Gross margin		555.97
<b>Direct Expenses</b>		
Protein Vit Minerals (lb.)	76.6	14.39
Complete Ration (lb.)	75.1	3.98
Corn (bu.)	1.2	3.93
Corn Silage (lb.)	4,451.3	76.17
Hay, Alfalfa (lb.)	253.1	11.30
Hay, Grass (lb.)	2,025.9	62.64
Pasture (aum)	24.8	50.96
Straw (lb.)	290.3	5.84
Other feed stuffs (lb)	9.6	0.79
Breeding fees		10.64
Veterinary		9.80
Supplies		0.66
Fuel & oil		7.75
Repairs		10.97
Custom hire		8.09
Hired labor		1.87
Bedding		5.62
Operating interest		2.25
Total direct expenses		287.65
Return over direct expense		268.32
<b>Overhead Expenses</b>		
Hired labor		11.79
Mach & bldg depreciation		20.82
Miscellaneous		22.19
Total overhead expenses		54.79
Total dir & ovhd expenses		342.44
Net return		213.52
Labor & management charge		26.73
Net return over lbr & mgt		186.80
Est. labor hours per unit		1.15
<b>Other Information</b>		
No. purchased or trans in		52
Number sold or trans out		85
Average number of head		78
Percentage death loss		0.6
Feed cost per average head		250.30
Feed cost/head sold/trans		230.00

**Livestock Enterprise Analysis**  
**North Dakota Farm Business Management Education Program**  
**Region 3 - South Central North Dakota, 2019**  
**(Farms Sorted By Net Return)**

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

	<u>Avg. Of All Farms</u>	
Number of farms	5	
	Quantity	Value
Backgnd Beef sold (lb)	364.48	518.01
Transferred out (lb)	0.65	1.00
Purchased (lb)	-78.07	-112.86
Transferred in (lb)	-230.78	-337.14
Inventory change (lb)	43.72	54.60
Gross margin		123.61
<b>Direct Expenses</b>		
Corn Gluten (lb.)	7.03	0.53
Protein Vit Minerals (lb.)	5.13	3.08
Creep / Starter (lb.)	6.44	3.87
Complete Ration (lb.)	133.60	8.10
Corn (bu.)	2.13	7.10
Corn Silage (lb.)	633.47	9.10
Hay, Grass (lb.)	188.69	6.29
Straw (lb.)	229.12	5.00
DDGS, dry (lb.)	191.98	7.04
DDGS, wet (lb.)	28.49	1.14
Hay (lb.)	127.66	1.91
Other feed stuffs (lb)	83.37	3.92
Veterinary		6.96
Supplies		7.40
Repairs		3.62
Total direct expenses		75.07
Return over direct expense		48.55
<b>Overhead Expenses</b>		
Hired labor		1.84
Interest		0.58
Mach & bldg depreciation		4.86
Miscellaneous		3.83
Total overhead expenses		11.11
Total dir & ovhd expenses		86.18
Net return		37.44
Labor & management charge		4.92
Net return over lbr & mgt		32.51
<b>Cost of Production Per Cwt. Produced</b>		
Total direct expense per unit		128.85
Total dir & ovhd expense per unit		131.89
With other revenue adjustments		131.89
With labor and management		133.24
Est. labor hours per unit		0.43
<b>Other Information</b>		
No. purchased or trans in		211
Number sold or trans out		183
Percentage death loss		0.2
Avg. daily gain (lb.)		2.32
Lb. of conc / lb. of gain		5.32
Lb. of feed / lb. of gain		13.44
Feed cost per cwt. of gain		57.09
Feed cost per head		55.46
Avg wgt / Backgnd Beef sold		758
Avg sales price / cwt.		142.12

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

**Beef Backgrounding -- Average Per Head**

	<u>Avg. Of All Farms</u>	
Number of farms	5	
	Quantity	Value
Backgnd Beef sold (lb)	354.1	503.21
Transferred out (lb)	0.6	0.97
Purchased (lb)	-75.8	-109.63
Transferred in (lb)	-224.2	-327.51
Inventory change (lb)	42.5	53.04
Gross margin		120.08
<b>Direct Expenses</b>		
Corn Gluten (lb.)	6.8	0.51
Protein Vit Minerals (lb.)	5.0	2.99
Creep / Starter (lb.)	6.3	3.76
Complete Ration (lb.)	129.8	7.87
Corn (bu.)	2.1	6.90
Corn Silage (lb.)	615.4	8.84
Hay, Grass (lb.)	183.3	6.11
Straw (lb.)	222.6	4.86
DDGS, dry (lb.)	186.5	6.83
DDGS, wet (lb.)	27.7	1.11
Hay (lb.)	124.0	1.86
Other feed stuffs (lb)	81.0	3.81
Veterinary		6.76
Supplies		7.19
Repairs		3.52
Total direct expenses		72.92
Return over direct expense		47.16
<b>Overhead Expenses</b>		
Hired labor		1.79
Interest		0.56
Mach & bldg depreciation		4.72
Miscellaneous		3.72
Total overhead expenses		10.79
Total dir & ovhd expenses		83.72
Net return		36.37
Labor & management charge		4.78
Net return over lbr & mgt		31.58
<b>Cost of Production Per Cwt. Produced</b>		
Total direct expense per unit		128.85
Total dir & ovhd expense per unit		131.89
With other revenue adjustments		131.89
With labor and management		133.24
Est. labor hours per unit		0.42
<b>Other Information</b>		
No. purchased or trans in		211
Number sold or trans out		183
Percentage death loss		0.2
Avg. daily gain (lb.)		2.32
Lb. of conc / lb. of gain		5.32
Lb. of feed / lb. of gain		13.44
Feed cost per cwt. of gain		57.09
Feed cost per head		55.46
Avg wgt / Backgnd Beef sold		758
Avg sales price / cwt.		142.12



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