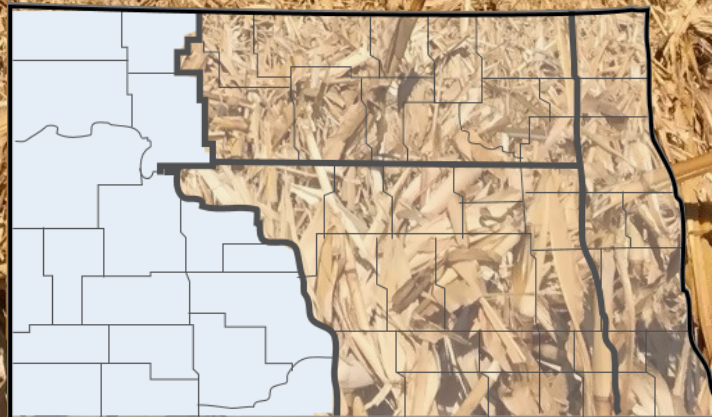


2019 ANNUAL REPORT

Western North Dakota

North Dakota Farm and Ranch Business
Management Education



www.ndfarmmanagement.com



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and Technical Education

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The N.D. Farm Management Education Association recognizes the listed organizations for their contribution toward the production and distribution of the N.D. Farm and Ranch Business Management Regional and State Averages for 2019.

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NORTH DAKOTA FARM BUSINESS MANAGEMENT EDUCATION

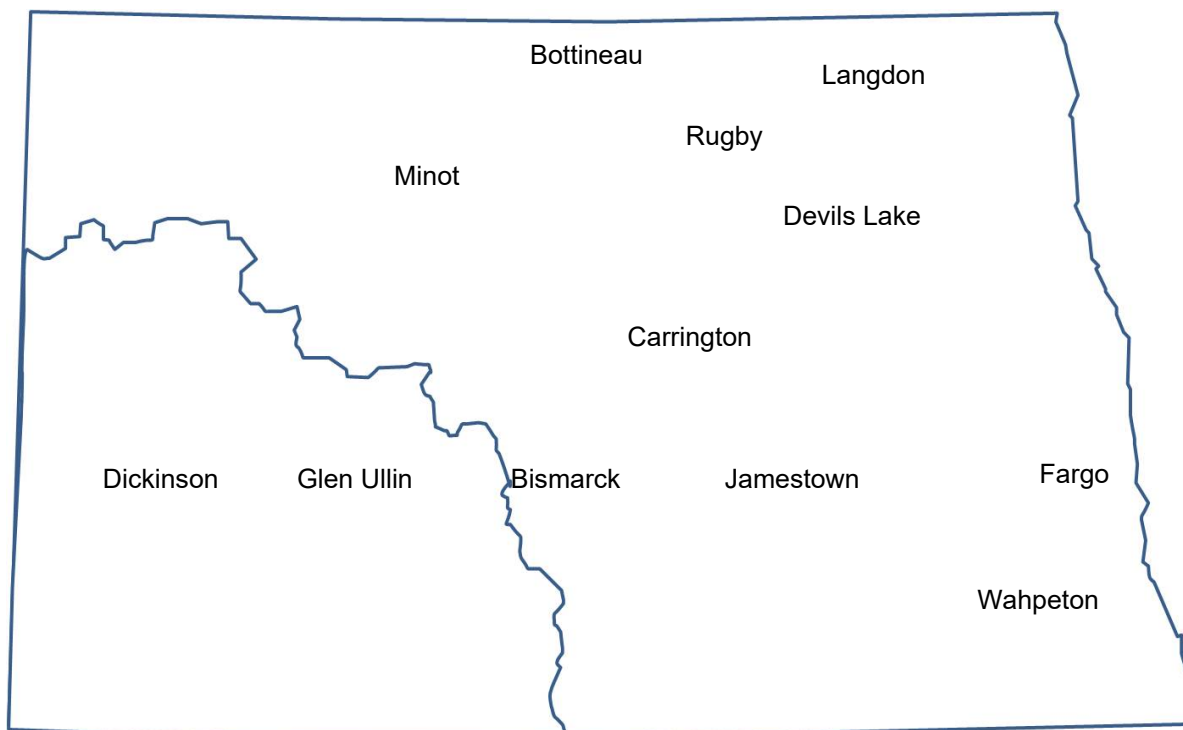
REGION 4 – WESTERN NORTH DAKOTA 2019 ANNUAL REPORT

The Western North Dakota (Region 4) farm business analyses were submitted by the following instructors represented by their cooperating schools.

<u>School</u>	<u>Instructor</u>
Bismarck State College	Kyle Olson
Bismarck State College – Dickinson	Jeff Dragseth
Dakota College at Bottineau – Minot.....	Lynsey Aberle
Glen Ullin Public School.....	Ron Egli

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.

Location of all Farm Business Management Education Programs in North Dakota



2019 Western North Dakota Report

North Dakota Farm Business Management Education

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INTRODUCTION

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

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

The 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.

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 4 - Western 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	46	9	9	10
Cash Farm Income				
Barley	3,672	-	-	10,249
Beans, Garbonzo	1,134	-	-	5,214
Buckwheat	627	3,205	-	-
Canola	8,346	-	10,291	29,128
Corn	63,566	84,161	12,127	82,517
Grass Seed, Timothy	104	-	-	480
Hay, Alfalfa	352	578	1,222	-
Hay, Mixed	888	3,490	-	118
Hay, Small Grain	4,609	21,150	-	-
Lentils	3,322	-	-	15,282
Millet	62	316	-	-
Oats	850	-	341	-
Peas, Field	11,411	1,695	5,119	20,345
Soybeans	89,235	83,293	8,356	158,513
Sunflowers	47,782	68,594	5,581	98,388
Sunflowers, Confectionary	8,706	19,915	-	-
Wheat, Durum	13,596	24,283	16,529	3,998
Wheat, Spring	139,623	202,583	90,444	220,968
Wheat, Winter	5,697	29,118	-	-
Miscellaneous crop income	9,698	378	341	12,387
Beef Bulls	7,896	-	-	1,322
Beef Cow-Calf, Beef Calves	61,002	78,442	37,677	99,620
Beef Replacement Heifers	1,088	1,528	-	3,630
Beef Backgrounding	6,805	-	4,968	12,683
Beef Finishing	23	119	-	-
Beef Finish Yearlings	10,382	-	12,029	-
Dairy, Milk	106,143	-	-	409,510
Dairy, Dairy Calves	3,165	-	-	10,866
Cull breeding livestock	19,266	9,504	10,128	34,719
Misc. livestock income	472	13	-	216
LDP payments	146	-	747	1
Crop government payments	19,870	17,150	10,374	23,681
CRP payments	58	-	288	-
Other government payments	33,351	30,224	15,139	61,412
Conservation govt payment	1,227	-	-	3,643
Custom work income	11,568	1,917	2,447	41,956
Patronage dividends, cash	3,507	2,756	827	6,317
Crop insurance income	28,778	54,574	20,236	39,280
Property insurance income	2,986	5,812	2,749	6,031
Other farm income	19,693	18,715	8,715	16,170
Gross Cash Farm Income	750,708	763,513	276,676	1,428,643

Farm Income Statement (continued)
North Dakota Farm Business Management Education Program
Region 4 - Western 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	46	9	9	10
Cash Farm Expense				
Seed and plants	50,811	49,533	11,246	88,672
Fertilizer	85,172	118,010	40,182	100,375
Crop chemicals	49,035	60,758	22,489	73,869
Crop insurance	21,857	29,213	10,558	36,154
Storage	921	3,599	1,108	-
Irrigation energy	832	-	-	2,832
Crop miscellaneous	1,164	2,622	595	1,689
Crop consultants	568	38	18	2,562
Feeder livestock purchase	8,997	36	44	28,909
Purchased feed	56,978	7,611	14,211	195,011
Breeding fees	1,605	89	727	6,099
Veterinary	6,926	2,216	2,029	15,364
Supplies	5,824	1,315	2,068	15,265
Livestock consultants	508	-	-	2,338
Interest	38,998	65,976	20,213	51,031
Fuel & oil	28,827	32,733	13,864	44,596
Repairs	58,946	78,193	27,932	83,748
Custom hire	30,793	44,819	7,168	58,425
Hired labor	40,942	20,893	2,067	122,143
Land rent	88,389	101,198	25,941	140,809
Machinery leases	8,042	4,180	1,345	22,012
Building leases	539	483	137	225
Real estate taxes	3,342	2,942	1,953	5,475
Farm insurance	11,135	13,130	5,238	17,450
Utilities	11,967	8,059	4,977	26,790
Marketing	6,410	4,396	836	17,464
Dues & professional fees	2,068	1,857	1,024	3,341
Purchase of resale items	967	-	-	-
Miscellaneous	15,593	7,313	7,219	16,886
Total cash expense	638,156	661,211	225,191	1,179,531
Net cash farm income	112,553	102,302	51,485	249,112
Inventory Changes				
Prepays and supplies	-7,942	-14,763	3,457	-1,119
Accounts receivable	-15,063	8,618	7,816	-81,294
Hedging accounts	-1,973	-206	-	-8,890
Other current assets	30,200	4,649	-	4,339
Crops and feed	12,014	-78,584	-1,977	160,396
Market livestock	-1,733	-9,261	5,770	-8,801
Breeding livestock	-2,478	-22,200	-3,639	9,111
Other assets	1,607	-156	834	1,300
Accounts payable	-5,871	-20,246	-1,205	-3,592
Accrued interest	-2,124	-4,554	-1,595	-1,867
Total inventory change	6,637	-136,702	9,462	69,583
Net operating profit	119,190	-34,400	60,947	318,695
Depreciation				
Machinery and equipment	-53,126	-49,853	-31,944	-76,942
Titled vehicles	-12,624	-8,623	-6,900	-17,531
Buildings and improvements	-9,235	-6,139	-2,541	-20,372
Total depreciation	-74,986	-64,614	-41,386	-114,845
Net farm income from operations	44,204	-99,014	19,561	203,850
Gain or loss on capital sales	2,585	-3,559	1,007	19,455
Net farm income	46,789	-102,573	20,568	223,305

Inventory Changes
North Dakota Farm Business Management Education Program
Region 4 - Western 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	46	9	9	10
Net cash farm income	112,553	102,302	51,485	249,112
Crops and Feed				
Ending inventory	390,627	385,505	204,286	696,014
Beginning inventory	378,613	464,088	206,262	535,618
Inventory change	12,014	-78,584	-1,977	160,396
Market Livestock				
Ending inventory	63,170	63,700	40,279	28,411
Beginning inventory	64,903	72,960	34,509	37,212
Inventory change	-1,733	-9,261	5,770	-8,801
Accts Receivable				
Ending inventory	23,106	24,689	10,680	43,672
Beginning inventory	38,169	16,071	2,864	124,966
Inventory change	-15,063	8,618	7,816	-81,294
Prepaid Expenses and Supplies				
Ending inventory	40,226	28,051	6,570	107,684
Beginning inventory	48,168	42,814	3,113	108,803
Inventory change	-7,942	-14,763	3,457	-1,119
Hedging Activities				
Ending inventory	970	647	-	3,882
Withdrawals	326	-	-	1,500
Beginning inventory	787	853	-	2,854
Deposits	2,482	-	-	11,418
Gain or loss	-1,973	-206	-	-8,890
Other Current Assets				
Ending inventory	36,746	13,175	-	-695
Beginning inventory	6,546	8,526	-	-5,033
Inventory change	30,200	4,649	-	4,339
Breeding Livestock				
Ending inventory	172,759	118,951	117,689	323,711
Capital sales	972	-	-	2,550
Beginning inventory	166,909	126,375	114,266	311,911
Capital purchases	9,300	14,776	7,062	5,240
Depreciation, capital adjust	-2,478	-22,200	-3,639	9,111
Other Capital Assets				
Ending inventory	46,160	10,133	51,555	41,245
Capital sales	20	-	-	-
Beginning inventory	44,529	10,289	50,721	39,945
Capital purchases	43	-	-	-
Depreciation, capital adjust	1,607	-156	834	1,300
Accounts Payable				
Beginning inventory	13,927	6,703	4,758	43,603
Ending inventory	19,798	26,949	5,962	47,195
Inventory change	-5,871	-20,246	-1,205	-3,592
Accrued Interest				
Beginning inventory	12,855	19,407	11,463	11,592
Ending inventory	14,980	23,962	13,059	13,459
Inventory change	-2,124	-4,554	-1,595	-1,867
Total inventory change	6,637	-136,702	9,462	69,583
Net operating profit	119,190	-34,400	60,947	318,695

Depreciation
North Dakota Farm Business Management Education Program
Region 4 - Western 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	46	9	9	10
Net operating profit	119,190	-34,400	60,947	318,695
Machinery and Equipment				
Ending inventory	486,604	428,714	284,242	720,990
Capital sales	17,421	37,520	9,351	21,796
Beginning inventory	481,420	452,205	276,579	729,655
Capital purchases	75,732	63,881	48,959	90,072
Depreciation, capital adjust.	-53,126	-49,853	-31,944	-76,942
Titled Vehicles				
Ending inventory	79,603	46,912	55,130	127,554
Capital sales	2,026	280	-	6,946
Beginning inventory	78,582	53,736	53,853	112,575
Capital purchases	15,672	2,079	8,178	39,456
Depreciation, capital adjust.	-12,624	-8,623	-6,900	-17,531
Buildings and Improvements				
Ending inventory	190,289	122,088	77,002	397,352
Capital sales	29	-	-	81
Beginning inventory	191,986	128,227	78,216	392,924
Capital purchases	7,567	-	1,328	24,881
Depreciation, capital adjust.	-9,235	-6,139	-2,541	-20,372
Total depreciation, capital adj.	-74,986	-64,614	-41,386	-114,845
Net farm income from operations	44,204	-99,014	19,561	203,850
Gain or loss on capital sales	2,585	-3,559	1,007	19,455
Net farm income	46,789	-102,573	20,568	223,305

Profitability Measures
North Dakota Farm Business Management Education Program
Region 4 - Western 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	46	9	9	10
Profitability (assets valued at cost)				
Net farm income from operations	44,204	-99,014	19,561	203,850
Rate of return on assets	1.5 %	-5.1 %	0.6 %	5.3 %
Rate of return on equity	-0.9 %	-27.6 %	-2.7 %	5.7 %
Operating profit margin	4.5 %	-13.0 %	2.3 %	13.5 %
Asset turnover rate	34.3 %	39.2 %	24.9 %	39.0 %
Farm interest expense	41,123	70,530	21,809	52,897
Value of operator lbr and mgmt.	54,790	56,540	35,095	83,851
Return on farm assets	30,537	-85,025	6,275	172,895
Average farm assets	1,978,487	1,667,517	1,088,131	3,283,586
Return on farm equity	-10,586	-155,555	-15,534	119,998
Average farm equity	1,149,929	562,818	576,042	2,104,700
Value of farm production	678,728	654,078	271,226	1,281,394

Liquidity & Repayment Capacity Measures
North Dakota Farm Business Management Education Program
Region 4 - Western 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	46	9	9	10
Liquidity				
Current ratio	1.78	1.02	2.03	2.34
Working capital	257,746	11,461	145,624	563,696
Working capital to gross inc	39.7 %	1.8 %	51.0 %	49.7 %
Current assets	586,620	481,747	287,337	984,997
Current liabilities	328,874	470,287	141,713	421,301
Gross revenues (accrual)	649,389	634,447	285,481	1,133,933
Repayment capacity				
Net farm income from operations	44,204	-99,014	19,561	203,850
Depreciation	74,986	64,614	41,386	114,845
Personal income	36,990	39,525	38,920	23,826
Family living/owner withdrawals	-57,980	-70,133	-38,360	-66,663
Cash discrepancy	793	518	442	2,864
Payments on personal debt	-6,432	-2,208	-5,059	-13,551
Income taxes paid	-10,034	-3,815	-2,697	-13,736
Interest on term debt	29,926	36,206	18,400	36,404
Capital debt repayment capacity	112,453	-34,308	72,592	287,839
Scheduled term debt payments	-88,694	-95,728	-49,483	-146,394
Capital debt repayment margin	23,759	-130,036	23,110	141,445
Cash replacement allowance	-38,888	-22,082	-19,418	-64,403
Replacement margin	-15,129	-152,118	3,692	77,042
Term debt coverage ratio	1.27	-0.36	1.47	1.97
Replacement coverage ratio	0.88	-0.29	1.05	1.37

Balance Sheet at Cost Values
North Dakota Farm Business Management Education Program
Region 4 - Western 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	44	8	9	9
Assets				
Current Farm Assets				
Cash and checking balance	34,032	-1,945	25,523	56,891
Prepaid expenses & supplies	37,478	15,110	6,570	111,895
Growing crops	30,821	14,822	-	-
Accounts receivable	23,849	27,775	10,680	47,019
Hedging accounts	1,015	728	-	4,313
Crops held for sale or feed	386,231	353,596	204,286	736,249
Market livestock held for sale	65,599	71,662	40,279	29,401
Other current assets	7,595	-	-	-772
Total current farm assets	586,620	481,747	287,337	984,997
Intermediate Farm Assets				
Breeding livestock	149,489	133,820	117,689	207,523
Machinery and equipment	479,666	405,947	284,242	726,917
Titled vehicles	77,039	43,429	55,130	119,809
Other intermediate assets	2,230	93	687	1,600
Total intermediate farm assets	708,425	583,289	457,748	1,055,849
Long Term Farm Assets				
Farm land	432,913	363,842	234,889	807,068
Buildings and improvements	148,894	112,692	77,002	218,760
Other long-term assets	45,724	11,307	50,868	42,745
Total long-term farm assets	627,531	487,841	362,759	1,068,574
Total Farm Assets	1,922,576	1,552,878	1,107,845	3,109,419
Total Nonfarm Assets	351,830	225,377	215,622	595,333
Total Assets	2,274,405	1,778,255	1,323,467	3,704,752
Liabilities				
Current Farm Liabilities				
Accrued interest	14,516	21,176	13,059	14,499
Accounts payable	12,583	30,318	5,962	12,762
Current notes	242,148	366,011	84,977	313,746
Government crop loans	-	-	-	-
Principal due on term debt	59,627	52,781	37,715	80,293
Total current farm liabilities	328,874	470,287	141,713	421,301
Total intermediate farm liabs	197,803	357,261	107,152	160,313
Total long term farm liabilities	272,349	258,956	271,328	445,515
Total farm liabilities	799,026	1,086,504	520,193	1,027,129
Total nonfarm liabilities	53,855	11,000	34,404	142,411
Total liabilities	852,881	1,097,505	554,597	1,169,540
Net worth (farm and nonfarm)	1,421,524	680,750	768,870	2,535,212
Net worth change	34,621	-130,205	60,579	194,477
Percent net worth change	2 %	-16 %	9 %	8 %
Ratio Analysis				
Current farm liabilities / assets	56 %	98 %	49 %	43 %
Intermediate farm liab. / assets	28 %	61 %	23 %	15 %
Long term farm liab. / assets	43 %	53 %	75 %	42 %
Total debt to asset ratio	37 %	62 %	42 %	32 %

Statement Of Cash Flows
North Dakota Farm Business Management Education Program
Region 4 - Western 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	46	9	9	10
Beginning cash (farm & nonfarm)	43,313	31,641	34,519	56,999
Cash Provided By Operating Activities				
Gross cash farm income	750,708	763,513	276,676	1,428,643
Total cash farm expense	-638,156	-661,211	-225,191	-1,179,531
Net cash from hedging transactions	-2,156	-	-	-9,918
Cash provided by operating	110,397	102,302	51,485	239,195
Cash Provided By Investing Activities				
Sale of breeding livestock	691	-	-	2,550
Sale of machinery & equipment	14,869	33,908	10,358	16,411
Sale of titled vehicles	2,231	333	-	7,840
Sale of farm land	6,087	-	-	27,000
Sale of farm buildings	40	-	-	55
Sale of other farm assets	20	-	-	-
Sale of nonfarm assets	4,674	-	1,111	600
Purchase of breeding livestock	-9,300	-14,776	-7,062	-5,240
Purchase of machinery & equip.	-75,732	-63,881	-48,959	-90,072
Purchase of titled vehicles	-15,672	-2,079	-8,178	-39,456
Purchase of farm land	-23,484	-26,667	-11,222	-41,925
Purchase of farm buildings	-7,567	-	-1,328	-24,881
Purchase of other farm assets	-43	-	-	-
Purchase of nonfarm assets	-4,404	-533	-	-9,138
Cash provided by investing	-107,590	-73,695	-65,279	-156,256
Cash Provided By Financing Activities				
Money borrowed	632,954	862,993	180,254	780,040
Principal payments	-603,525	-883,282	-172,506	-773,527
Personal income	36,990	39,525	38,920	23,826
Family living/owner withdrawals	-57,980	-70,133	-38,360	-66,663
Income and social security tax	-9,905	-3,815	-3,041	-12,836
Capital contributions	2,300	87	11,482	-
Capital distributions	-	-	-	-
Dividends paid	-	-	-	-
Cash gifts and inheritances	4,006	1,686	5,011	1,590
Gifts given	-304	-1,333	-	-
Other cash flows	-	-	-	-
Cash provided by financing	4,536	-54,274	21,759	-47,571
Net change in cash balance	7,342	-25,668	7,965	35,368
Ending cash (farm & nonfarm)	51,449	6,491	42,925	95,232
Discrepancy	-793	-518	-442	-2,864

Financial Standards Measures
North Dakota Farm Business Management Education Program
Region 4 - Western 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	46	9	9	10
Liquidity				
Current ratio	1.78	1.02	2.03	2.34
Working capital	257,746	11,461	145,624	563,696
Working capital to gross inc	39.7 %	1.8 %	51.0 %	49.7 %
Solvency (cost)				
Farm debt to asset ratio	42 %	70 %	47 %	33 %
Farm equity to asset ratio	58 %	30 %	53 %	67 %
Farm debt to equity ratio	0.71	2.33	0.89	0.49
Profitability (cost)				
Rate of return on farm assets	1.5 %	-5.1 %	0.6 %	5.3 %
Rate of return on farm equity	-0.9 %	-27.6 %	-2.7 %	5.7 %
Operating profit margin	4.5 %	-13.0 %	2.3 %	13.5 %
Net farm income	46,789	-102,573	20,568	223,305
EBITDA	160,312	36,130	82,756	371,592
Repayment Capacity				
Capital debt repayment capacity	112,453	-34,308	72,592	287,839
Capital debt repayment margin	23,759	-130,036	23,110	141,445
Replacement margin	-15,129	-152,118	3,692	77,042
Term debt coverage ratio	1.27	-0.36	1.47	1.97
Replacement coverage ratio	0.88	-0.29	1.05	1.37
Efficiency				
Asset turnover rate (cost)	34.3 %	39.2 %	24.9 %	39.0 %
Operating expense ratio	78.5 %	94.5 %	71.0 %	75.3 %
Depreciation expense ratio	10.1 %	9.8 %	14.5 %	7.6 %
Interest expense ratio	5.5 %	10.7 %	7.6 %	3.5 %
Net farm income ratio	5.9 %	-15.0 %	6.9 %	13.5 %

Crop Production and Marketing Summary
North Dakota Farm Business Management Education Program
Region 4 - Western 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	46	9	9	10
Acreage Summary				
Total acres owned	986	963	920	1,042
Total crop acres	2,210	2,692	995	3,462
Crop acres owned	496	440	450	621
Crop acres cash rented	1,579	2,164	423	2,468
Crop acres share rented	135	88	122	374
Total pasture acres	1,317	1,025	962	1,836
Percent crop acres owned	22 %	16 %	45 %	18 %
Mach invest/crop acre cost	252	182	327	238
Average Price Received (Cash Sales Only)				
Wheat, Spring per bushel	4.75	4.55	5.63	4.78
Soybeans per bushel	7.99	8.29	-	7.93
Corn per bushel	3.45	-	-	-
Sunflowers per cwt	17.69	-	-	-
Peas, Field per bushel	5.23	-	-	-
Average Yield Per Acre				
Wheat, Spring (bushel)	50.18	43.12	34.88	53.58
Soybeans (bushel)	34.86	31.11	16.71	39.48
Hay, Mixed Alfalfa/Grass (ton)	1.28	-	1.05	1.44
Corn (bushel)	117.65	119.93	116.37	115.74
Sunflowers (cwt)	15.45	-	-	-
Lentils (cwt)	21.02	-	11.32	25.37
Peas, Field (bushel)	45.29	-	-	-
Hay, Small Grain (ton)	2.46	-	-	-
Hay, Grass (ton)	1.25	-	-	-
Hay, Alfalfa (ton)	1.46	-	-	1.50

Household and Personal Expenses
North Dakota Farm Business Management Education Program
Region 4 - Western North Dakota, 2019
(Farms Sorted By Net Farm Income)

	<u>Avg. Of All Farms</u>
Number of farms	10
Average family size	2.9
Family Living Expenses	
Food and meals expense	13,352
Medical care	7,196
Health insurance	6,969
Cash donations	1,582
Household supplies	4,377
Clothing	2,948
Personal care	3,458
Child / Dependent care	422
Alimony and child support	85
Gifts	2,506
Education	1,303
Recreation	10,995
Utilities (household share)	3,914
Personal vehicle operating exp	5,675
Household real estate taxes	-
Dwelling rent	11
Household repairs	1,169
Personal interest	1,243
Disability / Long term care ins	239
Life insurance payments	3,053
Personal property insurance	582
Miscellaneous	3,173
Total cash family living expense	74,251
Family living from the farm	200
Total family living	74,451
Other Nonfarm Expenditures	
Income taxes	4,018
Furnishing & appliance purchases	-
Nonfarm vehicle purchases	3,950
Nonfarm real estate purchases	-
Other nonfarm capital purchases	-
Nonfarm savings & investments	-6,799
Total other nonfarm expenditures	1,168
Total cash family living investment & nonfarm capital purch	75,419

Operator and Labor Information
North Dakota Farm Business Management Education Program
Region 4 - Western 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	46	9	9	10
Operator Information				
Average number of operators	1.1	1.1	1.0	1.1
Average age of operators	49.4	56.3	44.4	49.4
Average number of years farming	23.5	32.3	17.0	22.9
Results Per Operator				
Working capital	227,715	25,202	145,624	430,012
Total assets (cost)	2,214,349	1,621,819	1,323,467	3,616,355
Total liabilities	853,425	1,005,569	554,597	1,231,023
Net worth (cost)	1,360,925	616,250	768,870	2,385,332
Gross farm income	700,017	595,552	285,481	1,368,467
Total farm expense	658,519	684,665	265,920	1,183,149
Net farm income from operations	41,498	-89,113	19,561	185,318
Net nonfarm income	34,725	35,572	38,920	21,660
Family living & tax withdrawals	63,105	66,088	40,615	70,486
Total acres owned	926.0	866.5	919.9	947.2
Total crop acres	2,074.7	2,423.2	994.7	3,147.6
Crop acres owned	466.0	396.3	449.9	564.3
Crop acres cash rented	1,482.0	1,947.6	422.9	2,243.7
Crop acres share rented	126.8	79.3	121.8	339.5
Total pasture acres	1,236.0	922.3	961.9	1,668.6
Labor Analysis				
Number of farms	46	9	9	10
Total unpaid labor hours	2,213	2,278	2,022	2,395
Total hired labor hours	1,272	676	89	3,758
Total labor hours per farm	3,485	2,954	2,111	6,153

Nonfarm Summary
North Dakota Farm Business Management Education Program
Region 4 - Western 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	46	9	9	10
Nonfarm Income				
Personal wages & salary	20,984	33,723	32,946	13,424
Net nonfarm business income	2,897	90	605	1,314
Personal rental income	198	-	380	350
Personal interest income	19	1	27	42
Personal cash dividends	11	-	-	-
Tax refunds	1,469	670	960	3,421
Other nonfarm income	11,411	5,041	4,002	5,274
Total nonfarm income	36,990	39,525	38,920	23,826
Gifts and inheritances	4,006	1,686	5,011	1,590

Financial Summary
North Dakota Farm Business Management Education Program
Region 4 - Western North Dakota, 2019
(Farms Sorted By Gross Farm Income)

	<u>Avg. Of All Farms</u>	<u>Less than 100,000</u>	<u>100,001 - 250,000</u>	<u>250,001 - 500,000</u>	<u>500,001 - 1,000,000</u>	<u>1,000,001- 2,000,000</u>
Number of farms	46	7	5	9	14	7
Income Statement						
Gross cash farm income	750,708	59,614	167,890	340,479	726,541	1,219,513
Total cash farm expense	638,156	64,903	132,992	281,194	610,991	922,986
Net cash farm income	112,553	-5,289	34,898	59,285	115,550	296,528
Inventory change	6,637	13,651	-11,880	-6,607	10,699	-66,835
Depreciation	-74,986	-13,137	-20,099	-39,074	-80,949	-140,342
Net farm income from operations	44,204	-4,776	2,920	13,605	45,300	89,350
Gain or loss on capital sales	2,585	1,371	45,528	-59	341	5,119
Average net farm income	46,789	-3,404	48,447	13,546	45,641	94,469
Median net farm income	22,937	335	33,658	20,150	55,481	117,077
Profitability (cost)						
Rate of return on assets	1.5 %	-5.0 %	-0.6 %	0.0 %	1.5 %	2.4 %
Rate of return on equity	-0.9 %	-18.3 %	-3.5 %	-2.7 %	-0.8 %	0.3 %
Operating profit margin	4.5 %	-27.5 %	-4.3 %	-0.1 %	4.8 %	7.6 %
Asset turnover rate	34.3 %	18.1 %	15.2 %	24.5 %	31.2 %	32.1 %
Liquidity & Repayment (end of year)						
Current assets	586,620	65,852	178,966	367,916	663,472	1,146,031
Current liabilities	328,874	43,138	97,517	166,081	350,275	585,561
Current ratio	1.78	1.53	1.84	2.22	1.89	1.96
Working capital	257,746	22,713	81,449	201,835	313,197	560,470
Change in working capital	-17,465	5,080	-25,690	-27,387	-16,004	8,956
Working capital to gross inc	39.7 %	28.7 %	52.6 %	59.8 %	42.2 %	45.3 %
Term debt coverage ratio	1.27	1.32	0.84	0.78	1.32	1.18
Replacement coverage ratio	0.88	1.13	0.63	0.54	0.87	0.74
Term debt to EBITDA	3.16	14.44	6.30	3.50	2.92	3.33
Solvency (end of year at cost)						
Number of sole proprietors	44	7	5	9	14	6
Total assets	2,274,405	513,586	964,793	1,638,991	2,617,834	4,592,938
Total liabilities	852,881	307,000	342,201	468,792	906,105	1,817,646
Net worth	1,421,524	206,586	622,592	1,170,199	1,711,729	2,775,291
Net worth change	34,621	19,962	59,673	19,542	46,058	3,610
Farm debt to asset ratio	42 %	64 %	39 %	35 %	39 %	41 %
Total debt to asset ratio	37 %	60 %	35 %	29 %	35 %	40 %
Change in earned net worth %	2 %	11 %	11 %	2 %	3 %	0 %
Nonfarm Information						
Net nonfarm income	36,990	37,067	37,508	40,625	38,674	18,707
Farms reporting living expenses	10	2	1	3	1	2
Total family living expense	74,451	-	-	-	-	-
Crop Acres						
Total crop acres	2,210	407	323	1,156	2,422	4,594
Total crop acres owned	496	197	194	290	725	971
Total crop acres cash rented	1,579	82	128	685	1,642	3,205
Total crop acres share rented	135	128	-	181	54	418
Machinery value per crop acre	252	179	261	262	275	235

Financial Summary
North Dakota Farm Business Management Education Program
Region 4 - Western North Dakota, 2019
(Farms Sorted By Age of Operator)

	<u>Avg. Of All Farms</u>	<u>31 - 40</u>	<u>41 - 50</u>	<u>51 - 60</u>	<u>Over 60</u>
Number of farms	46	10	9	11	14
Income Statement					
Gross cash farm income	750,708	761,824	480,874	791,696	983,698
Total cash farm expense	638,156	746,118	361,054	684,125	785,081
Net cash farm income	112,553	15,706	119,820	107,571	198,617
Inventory change	6,637	146,659	-67,375	19,707	-57,397
Depreciation	-74,986	-55,572	-51,554	-93,371	-98,071
Net farm income from operations	44,204	106,793	891	33,907	43,149
Gain or loss on capital sales	2,585	-3,766	-125	-2,686	12,689
Average net farm income	46,789	103,027	766	31,221	55,838
Median net farm income	22,937	29,691	-9,139	81,120	9,793
Profitability (cost)					
Rate of return on assets	1.5 %	5.8 %	-0.7 %	1.1 %	1.0 %
Rate of return on equity	-0.9 %	7.4 %	-5.3 %	-2.0 %	-1.1 %
Operating profit margin	4.5 %	12.4 %	-2.1 %	3.3 %	3.1 %
Asset turnover rate	34.3 %	47.1 %	30.9 %	33.9 %	31.2 %
Liquidity & Repayment (end of year)					
Current assets	586,620	629,187	481,755	635,382	674,276
Current liabilities	328,874	439,969	319,084	369,727	255,239
Current ratio	1.78	1.43	1.51	1.72	2.64
Working capital	257,746	189,218	162,671	265,655	419,037
Change in working capital	-17,465	21,147	-39,122	-5,596	-44,762
Working capital to gross inc	39.7 %	24.3 %	36.4 %	32.5 %	66.0 %
Term debt coverage ratio	1.27	2.53	0.46	1.26	0.93
Replacement coverage ratio	0.88	1.94	0.32	0.82	0.64
Term debt to EBITDA	3.16	2.11	4.46	3.39	3.18
Solvency (end of year at cost)					
Number of sole proprietors	44	10	9	11	12
Total assets	2,274,405	1,845,382	1,599,018	2,811,855	2,915,280
Total liabilities	852,881	977,519	735,696	1,004,220	767,034
Net worth	1,421,524	867,864	863,322	1,807,635	2,148,247
Net worth change	34,621	146,615	-46,504	60,430	-17,946
Farm debt to asset ratio	42 %	56 %	50 %	40 %	29 %
Total debt to asset ratio	37 %	53 %	46 %	36 %	26 %
Change in earned net worth %	2 %	20 %	-5 %	3 %	-1 %
Nonfarm Information					
Net nonfarm income	36,990	49,020	20,696	51,568	29,703
Farms reporting living expenses	10	1	3	2	4
Total family living expense	74,451	-	-	-	-
Crop Acres					
Total crop acres	2,210	2,520	1,648	2,421	2,447
Total crop acres owned	496	228	168	531	889
Total crop acres cash rented	1,579	2,181	1,348	1,772	1,371
Total crop acres share rented	135	110	132	119	187
Machinery value per crop acre	252	164	238	311	276

Financial Summary
North Dakota Farm Business Management Education Program
Region 4 - Western 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	46	22	11	6	5
Income Statement					
Gross cash farm income	750,708	1,050,313	201,253	342,811	294,211
Total cash farm expense	638,156	877,973	161,196	325,869	267,126
Net cash farm income	112,553	172,339	40,057	16,942	27,085
Inventory change	6,637	-6,436	3,922	33,823	9,461
Depreciation	-74,986	-112,531	-17,867	-36,949	-43,085
Net farm income from operations	44,204	53,373	26,112	13,817	-6,540
Gain or loss on capital sales	2,585	-3,573	-403	901	46,628
Average net farm income	46,789	49,800	25,709	14,717	40,088
Median net farm income	22,937	54,665	6,156	-3,908	8,731
Profitability (cost)					
Rate of return on assets	1.5 %	1.6 %	0.9 %	0.6 %	-1.4 %
Rate of return on equity	-0.9 %	-1.3 %	0.0 %	-3.9 %	-3.2 %
Operating profit margin	4.5 %	4.2 %	4.0 %	2.2 %	-7.6 %
Asset turnover rate	34.3 %	37.1 %	21.8 %	27.0 %	18.2 %
Liquidity & Repayment (end of year)					
Current assets	586,620	905,378	181,837	323,825	445,208
Current liabilities	328,874	553,342	88,446	201,060	97,065
Current ratio	1.78	1.64	2.06	1.61	4.59
Working capital	257,746	352,035	93,391	122,765	348,143
Change in working capital	-17,465	-22,981	1,102	-16,833	-62,850
Working capital to gross inc	39.7 %	34.5 %	45.7 %	32.7 %	108.1 %
Term debt coverage ratio	1.27	1.30	1.49	0.98	0.21
Replacement coverage ratio	0.88	0.85	1.25	0.71	0.13
Term debt to EBITDA	3.16	2.98	3.25	4.57	5.58
Solvency (end of year at cost)					
Number of sole proprietors	44	21	11	6	5
Total assets	2,274,405	3,283,174	844,069	1,486,348	2,011,490
Total liabilities	852,881	1,297,539	275,401	658,755	437,397
Net worth	1,421,524	1,985,635	568,668	827,593	1,574,093
Net worth change	34,621	36,699	38,823	7,307	-3,122
Farm debt to asset ratio	42 %	44 %	34 %	50 %	25 %
Total debt to asset ratio	37 %	40 %	33 %	44 %	22 %
Change in earned net worth %	2 %	2 %	7 %	1 %	0 %
Nonfarm Information					
Net nonfarm income	36,990	37,836	30,235	34,837	37,206
Farms reporting living expenses	10	4	3	1	2
Total family living expense	74,451	-	-	-	-
Crop Acres					
Total crop acres	2,210	3,741	620	1,271	724
Total crop acres owned	496	817	191	207	293
Total crop acres cash rented	1,579	2,738	406	871	291
Total crop acres share rented	135	186	24	194	140
Machinery value per crop acre	252	240	203	221	329

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.

Crop Enterprise Analysis
North Dakota Farm Business Management Education Program
Region 4 - Western North Dakota, 2019
(Farms Sorted By Net Return)

Corn on Owned Land

	<u>Avg. Of All Farms</u>
Number of farms	6
Acres	160.33
Yield per acre (bu.)	90.95
Operators share of yield %	100.00
Value per bu.	3.06
Total product return per acre	278.23
Other crop income per acre	14.32
Gross return per acre	292.55
Direct Expenses	
Seed and plants	69.70
Fertilizer	71.65
Crop chemicals	14.82
Crop insurance	12.41
Fuel & oil	13.86
Repairs	27.48
Custom hire	6.90
Hired labor	1.05
Machinery leases	0.19
Operating interest	9.32
Miscellaneous	0.73
Total direct expenses per acre	228.10
Return over direct exp per acre	64.45
Overhead Expenses	
Custom hire	2.96
Hired labor	4.43
Machinery leases	1.28
Building leases	0.30
RE & pers. property taxes	5.01
Farm insurance	3.77
Utilities	3.52
Dues & professional fees	0.52
Interest	29.17
Mach & bldg depreciation	45.34
Miscellaneous	5.12
Total overhead expenses per acre	101.42
Total dir & ovhd expenses per acre	329.52
Net return per acre	-36.97
Government payments	6.46
Net return with govt pmts	-30.51
Labor & management charge	25.55
Net return over lbr & mgt	-56.06
Cost of Production	
Total direct expense per bu.	2.51
Total dir & ovhd exp per bu.	3.62
Less govt & other income	3.39
With labor & management	3.68
Net value per unit	3.06
Machinery cost per acre	96.51
Est. labor hours per acre	1.17

Crop Enterprise Analysis
North Dakota Farm Business Management Education Program
Region 4 - Western North Dakota, 2019
(Farms Sorted By Net Return)

Corn on Cash Rent

	<u>Avg. Of All Farms</u>
Number of farms	11
Acres	482.10
Yield per acre (bu.)	122.50
Operators share of yield %	100.00
Value per bu.	3.17
Total product return per acre	388.23
Other crop income per acre	13.93
Gross return per acre	402.16
Direct Expenses	
Seed and plants	64.10
Fertilizer	73.54
Crop chemicals	20.86
Crop insurance	14.55
Fuel & oil	16.76
Repairs	32.08
Custom hire	8.32
Hired labor	9.03
Land rent	51.92
Machinery leases	2.18
Operating interest	9.01
Miscellaneous	0.94
Total direct expenses per acre	303.27
Return over direct exp per acre	98.89
Overhead Expenses	
Custom hire	5.65
Hired labor	8.25
Machinery leases	2.39
Building leases	0.20
Farm insurance	2.79
Utilities	3.03
Dues & professional fees	0.27
Interest	3.22
Mach & bldg depreciation	39.16
Miscellaneous	4.43
Total overhead expenses per acre	69.39
Total dir & ovhd expenses per acre	372.66
Net return per acre	29.50
Government payments	3.85
Net return with govt pmts	33.36
Labor & management charge	27.66
Net return over lbr & mgt	5.69
Cost of Production	
Total direct expense per bu.	2.48
Total dir & ovhd exp per bu.	3.04
Less govt & other income	2.90
With labor & management	3.12
Net value per unit	3.17
Machinery cost per acre	107.43
Est. labor hours per acre	1.59

Crop Enterprise Analysis
North Dakota Farm Business Management Education Program
Region 4 - Western North Dakota, 2019
(Farms Sorted By Net Return)

Hay, Mixed Alfalfa/Grass on Owned Land

	<u>Avg. Of All Farms</u>
Number of farms	11
Acres	178.17
Yield per acre (ton)	1.14
Operators share of yield %	100.00
Value per ton	73.84
Total product return per acre	84.09
Other crop income per acre	3.92
Gross return per acre	88.02
Direct Expenses	
Seed and plants	0.71
Fertilizer	0.54
Crop insurance	1.36
Fuel & oil	6.31
Repairs	9.21
Machinery leases	0.17
Operating interest	0.76
Total direct expenses per acre	19.06
Return over direct exp per acre	68.96
Overhead Expenses	
Custom hire	0.07
Hired labor	2.82
Machinery leases	0.11
RE & pers. property taxes	4.26
Farm insurance	2.40
Utilities	1.03
Dues & professional fees	0.51
Interest	13.38
Mach & bldg depreciation	15.46
Miscellaneous	1.92
Total overhead expenses per acre	41.97
Total dir & ovhd expenses per acre	61.03
Net return per acre	26.99
Government payments	1.53
Net return with govt pmts	28.52
Labor & management charge	12.02
Net return over lbr & mgt	16.51
Cost of Production	
Total direct expense per ton	16.74
Total dir & ovhd exp per ton	53.58
Less govt & other income	48.79
With labor & management	59.34
Net value per unit	73.84
Machinery cost per acre	31.49
Est. labor hours per acre	0.81

Crop Enterprise Analysis
North Dakota Farm Business Management Education Program
Region 4 - Western North Dakota, 2019
(Farms Sorted By Net Return)

Hay, Mixed Alfalfa/Grass on Cash Rent

	<u>Avg. Of All Farms</u>
Number of farms	8
Acres	291.17
Yield per acre (ton)	1.33
Operators share of yield %	100.00
Value per ton	67.57
Total product return per acre	89.70
Gross return per acre	89.70
Direct Expenses	
Seed and plants	0.66
Fertilizer	0.81
Crop insurance	0.63
Fuel & oil	6.28
Repairs	8.53
Land rent	22.89
Operating interest	2.09
Miscellaneous	0.26
Total direct expenses per acre	42.15
Return over direct exp per acre	47.55
Overhead Expenses	
Custom hire	0.20
Hired labor	3.44
Farm insurance	2.51
Utilities	1.71
Dues & professional fees	0.56
Interest	2.62
Mach & bldg depreciation	14.32
Miscellaneous	2.47
Total overhead expenses per acre	27.82
Total dir & ovhd expenses per acre	69.98
Net return per acre	19.72
Government payments	0.41
Net return with govt pmts	20.14
Labor & management charge	8.65
Net return over lbr & mgt	11.48
Cost of Production	
Total direct expense per ton	31.75
Total dir & ovhd exp per ton	52.71
Less govt & other income	52.40
With labor & management	58.92
Net value per unit	67.57
Machinery cost per acre	31.56
Est. labor hours per acre	0.51

Crop Enterprise Analysis
North Dakota Farm Business Management Education Program
Region 4 - Western North Dakota, 2019
(Farms Sorted By Net Return)

Hay, Small Grain on Owned Land

	<u>Avg. Of All Farms</u>
Number of farms	6
Acres	82.76
Yield per acre (ton)	2.06
Operators share of yield %	100.00
Value per ton	69.92
Total product return per acre	143.87
Other crop income per acre	9.19
Gross return per acre	153.06
Direct Expenses	
Seed and plants	23.43
Fertilizer	14.22
Crop chemicals	8.18
Crop insurance	0.81
Fuel & oil	10.38
Repairs	15.62
Operating interest	3.27
Total direct expenses per acre	75.92
Return over direct exp per acre	77.14
Overhead Expenses	
Hired labor	5.76
Building leases	0.29
RE & pers. property taxes	6.06
Farm insurance	3.63
Utilities	2.26
Dues & professional fees	0.60
Interest	18.18
Mach & bldg depreciation	28.50
Miscellaneous	3.31
Total overhead expenses per acre	68.58
Total dir & ovhd expenses per acre	144.50
Net return per acre	8.56
Government payments	4.16
Net return with govt pmts	12.72
Labor & management charge	19.66
Net return over lbr & mgt	-6.94
Cost of Production	
Total direct expense per ton	36.90
Total dir & ovhd exp per ton	70.22
Less govt & other income	63.74
With labor & management	73.29
Net value per unit	69.92
Machinery cost per acre	55.88
Est. labor hours per acre	1.30

Crop Enterprise Analysis
North Dakota Farm Business Management Education Program
Region 4 - Western North Dakota, 2019
(Farms Sorted By Net Return)

Pasture on Owned Land

	<u>Avg. Of All Farms</u>
Number of farms	10
Acres	1,271.38
Yield per acre (aum)	0.56
Operators share of yield %	100.00
Value per aum	19.59
Total product return per acre	10.90
Crop insurance per acre	0.00
Other crop income per acre	0.06
Gross return per acre	10.96
Direct Expenses	
Crop insurance	0.24
Custom hire	0.35
Miscellaneous	1.00
Total direct expenses per acre	1.59
Return over direct exp per acre	9.37
Overhead Expenses	
RE & pers. property taxes	1.28
Interest	4.31
Mach & bldg depreciation	0.82
Miscellaneous	0.50
Total overhead expenses per acre	6.91
Total dir & ovhd expenses per acre	8.50
Net return per acre	2.46

Crop Enterprise Analysis
North Dakota Farm Business Management Education Program
Region 4 - Western North Dakota, 2019
(Farms Sorted By Net Return)

Pasture on Cash Rent

	<u>Avg. Of All Farms</u>
Number of farms	14
Acres	1,460.39
Yield per acre (aum)	0.85
Operators share of yield %	100.00
Value per aum	20.28
Total product return per acre	17.15
Crop insurance per acre	0.12
Other crop income per acre	0.15
Gross return per acre	17.42
Direct Expenses	
Crop insurance	0.50
Repairs	0.55
Custom hire	0.51
Land rent	15.52
Miscellaneous	0.60
Total direct expenses per acre	17.68
Return over direct exp per acre	-0.26
Overhead Expenses	
Mach & bldg depreciation	0.83
Miscellaneous	0.73
Total overhead expenses per acre	1.56
Total dir & ovhd expenses per acre	19.24
Net return per acre	-1.82

Crop Enterprise Analysis
North Dakota Farm Business Management Education Program
Region 4 - Western North Dakota, 2019
(Farms Sorted By Net Return)

Peas, Field on Cash Rent

	<u>Avg. Of All Farms</u>
Number of farms	5
Acres	285.99
Yield per acre (bu.)	46.80
Operators share of yield %	100.00
Value per bu.	4.93
Total product return per acre	230.88
Other crop income per acre	17.35
Gross return per acre	248.23
Direct Expenses	
Seed and plants	32.63
Fertilizer	11.97
Crop chemicals	26.11
Crop insurance	8.07
Fuel & oil	9.18
Repairs	14.25
Custom hire	7.73
Land rent	38.24
Machinery leases	2.48
Operating interest	1.39
Miscellaneous	0.17
Total direct expenses per acre	152.23
Return over direct exp per acre	96.00
Overhead Expenses	
Hired labor	6.09
Farm insurance	3.46
Utilities	1.89
Dues & professional fees	0.05
Interest	2.08
Mach & bldg depreciation	34.30
Miscellaneous	2.17
Total overhead expenses per acre	50.04
Total dir & ovhd expenses per acre	202.27
Net return per acre	45.96
Government payments	6.03
Net return with govt pmts	51.99
Labor & management charge	16.89
Net return over lbr & mgt	35.10
Cost of Production	
Total direct expense per bu.	3.25
Total dir & ovhd exp per bu.	4.32
Less govt & other income	3.82
With labor & management	4.18
Net value per unit	4.93
Machinery cost per acre	65.45
Est. labor hours per acre	0.77

Crop Enterprise Analysis
North Dakota Farm Business Management Education Program
Region 4 - Western North Dakota, 2019
(Farms Sorted By Net Return)

Soybeans on Owned Land

	<u>Avg. Of All Farms</u>
Number of farms	6
Acres	239.98
Yield per acre (bu.)	39.05
Operators share of yield %	100.00
Value per bu.	8.03
Total product return per acre	313.48
Other crop income per acre	15.27
Gross return per acre	328.75
Direct Expenses	
Seed and plants	57.58
Fertilizer	9.17
Crop chemicals	27.40
Crop insurance	8.95
Fuel & oil	10.53
Repairs	23.13
Custom hire	18.46
Hired labor	11.14
Machinery leases	3.78
Operating interest	6.21
Miscellaneous	1.66
Total direct expenses per acre	178.02
Return over direct exp per acre	150.74
Overhead Expenses	
Custom hire	2.68
Hired labor	0.41
RE & pers. property taxes	4.05
Farm insurance	3.90
Utilities	4.21
Interest	23.07
Mach & bldg depreciation	29.89
Miscellaneous	5.95
Total overhead expenses per acre	74.17
Total dir & ovhd expenses per acre	252.18
Net return per acre	76.57
Government payments	4.03
Net return with govt pmts	80.60
Labor & management charge	20.42
Net return over lbr & mgt	60.17
Cost of Production	
Total direct expense per bu.	4.56
Total dir & ovhd exp per bu.	6.46
Less govt & other income	5.96
With labor & management	6.49
Net value per unit	8.03
Machinery cost per acre	87.37
Est. labor hours per acre	1.21

Crop Enterprise Analysis
North Dakota Farm Business Management Education Program
Region 4 - Western North Dakota, 2019
(Farms Sorted By Net Return)

Soybeans on Cash Rent

	<u>Avg. Of All Farms</u>
Number of farms	13
Acres	608.08
Yield per acre (bu.)	34.26
Operators share of yield %	100.00
Value per bu.	8.00
Total product return per acre	274.10
Crop insurance per acre	8.29
Other crop income per acre	18.22
Gross return per acre	300.61
Direct Expenses	
Seed and plants	56.77
Fertilizer	13.53
Crop chemicals	23.64
Crop insurance	8.81
Fuel & oil	11.60
Repairs	23.90
Custom hire	11.51
Hired labor	7.22
Land rent	49.13
Machinery leases	2.43
Operating interest	5.74
Miscellaneous	0.50
Total direct expenses per acre	214.79
Return over direct exp per acre	85.82
Overhead Expenses	
Custom hire	4.35
Hired labor	5.30
Machinery leases	1.76
Farm insurance	3.21
Utilities	3.30
Interest	3.83
Mach & bldg depreciation	28.36
Miscellaneous	3.78
Total overhead expenses per acre	53.89
Total dir & ovhd expenses per acre	268.68
Net return per acre	31.93
Government payments	3.35
Net return with govt pmts	35.29
Labor & management charge	19.67
Net return over lbr & mgt	15.61
Cost of Production	
Total direct expense per bu.	6.27
Total dir & ovhd exp per bu.	7.84
Less govt & other income	6.97
With labor & management	7.54
Net value per unit	8.00
Machinery cost per acre	84.96
Est. labor hours per acre	1.07

Crop Enterprise Analysis
North Dakota Farm Business Management Education Program
Region 4 - Western North Dakota, 2019
(Farms Sorted By Net Return)

Sunflowers on Cash Rent

	<u>Avg. Of All Farms</u>
Number of farms	9
Acres	792.97
Yield per acre (cwt.)	15.37
Operators share of yield %	100.00
Value per cwt.	18.08
Total product return per acre	277.88
Crop insurance per acre	7.58
Other crop income per acre	18.16
Gross return per acre	303.62
Direct Expenses	
Seed and plants	37.04
Fertilizer	40.28
Crop chemicals	38.51
Crop insurance	10.02
Fuel & oil	11.98
Repairs	22.50
Custom hire	14.73
Hired labor	5.57
Land rent	40.76
Machinery leases	2.17
Operating interest	5.70
Miscellaneous	1.45
Total direct expenses per acre	230.71
Return over direct exp per acre	72.91
Overhead Expenses	
Custom hire	3.87
Hired labor	3.03
Machinery leases	1.80
Farm insurance	2.27
Utilities	2.58
Interest	2.73
Mach & bldg depreciation	21.40
Miscellaneous	2.80
Total overhead expenses per acre	40.48
Total dir & ovhd expenses per acre	271.19
Net return per acre	32.43
Government payments	5.75
Net return with govt pmts	38.18
Labor & management charge	19.00
Net return over lbr & mgt	19.18
Cost of Production	
Total direct expense per cwt.	15.01
Total dir & ovhd exp per cwt.	17.64
Less govt & other income	15.59
With labor & management	16.83
Net value per unit	18.08
Machinery cost per acre	79.38
Est. labor hours per acre	0.95

Crop Enterprise Analysis
North Dakota Farm Business Management Education Program
Region 4 - Western North Dakota, 2019
(Farms Sorted By Net Return)

Wheat, Spring on Owned Land

	<u>Avg. Of All Farms</u>
Number of farms	13
Acres	492.30
Yield per acre (bu.)	42.38
Operators share of yield %	100.00
Value per bu.	4.89
Other product return per acre	4.89
Total product return per acre	211.97
Crop insurance per acre	34.10
Other crop income per acre	5.29
Gross return per acre	251.37
Direct Expenses	
Seed and plants	12.98
Fertilizer	48.68
Crop chemicals	27.55
Crop insurance	13.14
Fuel & oil	9.00
Repairs	17.08
Custom hire	2.83
Hired labor	1.18
Machinery leases	0.58
Operating interest	3.75
Miscellaneous	1.10
Total direct expenses per acre	137.87
Return over direct exp per acre	113.50
Overhead Expenses	
Custom hire	1.06
Hired labor	4.66
RE & pers. property taxes	5.28
Farm insurance	3.99
Utilities	2.77
Dues & professional fees	0.39
Interest	17.25
Mach & bldg depreciation	36.79
Miscellaneous	5.06
Total overhead expenses per acre	77.24
Total dir & ovhd expenses per acre	215.11
Net return per acre	36.25
Government payments	14.12
Net return with govt pmts	50.37
Labor & management charge	18.20
Net return over lbr & mgt	32.17
Cost of Production	
Total direct expense per bu.	3.25
Total dir & ovhd exp per bu.	5.08
Less govt & other income	3.70
With labor & management	4.13
Net value per unit	4.89
Machinery cost per acre	65.34
Est. labor hours per acre	1.09

Crop Enterprise Analysis
North Dakota Farm Business Management Education Program
Region 4 - Western North Dakota, 2019
(Farms Sorted By Net Return)

Wheat, Spring on Cash Rent

	<u>Avg. Of All Farms</u>
Number of farms	19
Acres	1,066.75
Yield per acre (bu.)	49.95
Operators share of yield %	100.00
Value per bu.	4.58
Other product return per acre	0.25
Total product return per acre	229.15
Crop insurance per acre	28.70
Other crop income per acre	14.77
Gross return per acre	272.62
Direct Expenses	
Seed and plants	16.19
Fertilizer	54.67
Crop chemicals	34.51
Crop insurance	12.70
Fuel & oil	10.85
Repairs	19.53
Custom hire	10.88
Hired labor	6.33
Land rent	43.89
Machinery leases	1.89
Operating interest	5.29
Miscellaneous	1.06
Total direct expenses per acre	217.79
Return over direct exp per acre	54.83
Overhead Expenses	
Custom hire	1.82
Hired labor	4.66
Machinery leases	2.19
Building leases	0.18
Farm insurance	2.90
Utilities	2.56
Interest	3.25
Mach & bldg depreciation	24.21
Miscellaneous	3.19
Total overhead expenses per acre	44.96
Total dir & ovhd expenses per acre	262.75
Net return per acre	9.87
Government payments	4.58
Net return with govt pmts	14.45
Labor & management charge	18.05
Net return over lbr & mgt	-3.60
Cost of Production	
Total direct expense per bu.	4.36
Total dir & ovhd exp per bu.	5.26
Less govt & other income	4.29
With labor & management	4.65
Net value per unit	4.58
Machinery cost per acre	72.67
Est. labor hours per acre	0.97

EXPLANATORY NOTES FOR LIVESTOCK TABLES

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

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

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

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

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

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

Livestock Enterprise Analysis
North Dakota Farm Business Management Education Program
Region 4 - Western North Dakota, 2019
(Farms Sorted By Net Return)

Beef Cow-Calf -- Average Per Cwt. Produced

	<u>Avg. Of All Farms</u>	
Number of farms	6	
	Quantity	Value
Beef Calves sold (lb)	55.29	82.95
Transferred out (lb)	44.71	67.06
Cull sales		21.27
Other income		0.43
Purchased		-15.67
Transferred in		-39.68
Inventory change		15.30
Gross margin		131.66
Direct Expenses		
Protein Vit Minerals (lb.)	310.54	5.63
Complete Ration (lb.)	26.74	1.72
Hay, Alfalfa (lb.)	130.86	5.23
Hay, Grass (lb.)	956.66	36.70
Pasture (aum)	1.42	27.42
Hay (lb.)	165.34	4.53
Other feed stuffs (lb)	9.61	0.60
Veterinary		3.79
Supplies		2.20
Fuel & oil		5.33
Repairs		8.76
Custom hire		0.68
Marketing		2.20
Operating interest		0.84
Total direct expenses		105.61
Return over direct expense		26.04
Overhead Expenses		
Farm insurance		2.07
Utilities		2.62
Interest		1.77
Mach & bldg depreciation		10.17
Miscellaneous		3.18
Total overhead expenses		19.81
Total dir & ovhd expenses		125.43
Net return		6.23
Labor & management charge		20.14
Net return over lbr & mgt		-13.91
Cost of Production Per Cwt. Produced		
Total direct expense per unit		105.61
Total dir & ovhd expense per unit		125.43
With other revenue adjustments		144.22
With labor and management		164.37
Est. labor hours per unit		1.36
Other Information		
Number of cows		129.7
Pregnancy percentage		96.5
Pregnancy loss percentage		0.3
Culling percentage		11.8
Calving percentage		96.2
Weaning percentage		90.7
Calves sold per cow		1.01
Calf death loss percent		3.8
Cow death loss percent		2.2
Average weaning weight		538
Lb. weaned/exposed female		487
Feed cost per cow		445.21
Avg wgt/ Beef Calves sold		571
Avg price / cwt.		150.02

Livestock Enterprise Analysis
North Dakota Farm Business Management Education Program
Region 4 - Western North Dakota, 2019
(Farms Sorted By Net Return)

Beef Cow-Calf -- Average Per Cow

	<u>Avg. Of All Farms</u>	
Number of farms	6	
	Quantity	Value
Beef Calves sold (lb)	300.9	451.41
Transferred out (lb)	243.3	364.94
Cull sales		115.74
Other income		2.31
Purchased		-85.28
Transferred in		-215.94
Inventory change		83.23
Gross margin		716.42
Direct Expenses		
Protein Vit Minerals (lb.)	1,689.8	30.64
Complete Ration (lb.)	145.5	9.34
Hay, Alfalfa (lb.)	712.1	28.48
Hay, Grass (lb.)	5,205.8	199.70
Pasture (aum)	7.7	149.19
Hay (lb.)	899.7	24.62
Other feed stuffs (lb)	52.3	3.25
Veterinary		20.62
Supplies		11.99
Fuel & oil		29.00
Repairs		47.68
Custom hire		3.71
Marketing		11.96
Operating interest		4.55
Total direct expenses		574.72
Return over direct expense		141.70
Overhead Expenses		
Farm insurance		11.25
Utilities		14.27
Interest		9.66
Mach & bldg depreciation		55.33
Miscellaneous		17.31
Total overhead expenses		107.81
Total dir & ovhd expenses		682.53
Net return		33.89
Labor & management charge		109.61
Net return over lbr & mgt		-75.72
Cost of Production Per Cwt. Produced		
Total direct expense per unit		105.61
Total dir & ovhd expense per unit		125.43
With other revenue adjustments		144.22
With labor and management		164.37
Est. labor hours per unit		7.43
Other Information		
Number of cows		129.7
Pregnancy percentage		96.5
Pregnancy loss percentage		0.3
Culling percentage		11.8
Calving percentage		96.2
Weaning percentage		90.7
Calves sold per cow		1.01
Calf death loss percent		3.8
Cow death loss percent		2.2
Average weaning weight		538
Lb. weaned/exposed female		487
Feed cost per cow		445.21
Avg wgt/ Beef Calves sold		571
Avg price / cwt.		150.02

Livestock Enterprise Analysis
North Dakota Farm Business Management Education Program
Region 4 - Western 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	8	
	Quantity	Value
Beef Calves sold (lb)	27.23	41.64
Transferred out (lb)	42.41	65.11
Cull sales		14.68
Other income		0.21
Purchased		-30.43
Transferred in		-20.48
Inventory change		44.93
Gross margin		115.67
Direct Expenses		
Protein Vit Minerals (lb.)	297.16	6.01
Corn Silage (lb.)	252.71	3.54
Hay, Alfalfa (lb.)	138.26	6.54
Hay, Grass (lb.)	841.12	24.43
Pasture (aum)	1.68	34.05
Other feed stuffs (lb)	62.87	1.50
Veterinary		3.98
Supplies		0.98
Fuel & oil		4.16
Repairs		5.89
Custom hire		1.99
Utilities		0.51
Marketing		2.19
Operating interest		1.74
Total direct expenses		97.51
Return over direct expense		18.16
Overhead Expenses		
Hired labor		2.26
Farm insurance		1.59
Interest		3.66
Mach & bldg depreciation		8.73
Miscellaneous		4.40
Total overhead expenses		20.64
Total dir & ovhd expenses		118.15
Net return		-2.48
Labor & management charge		10.75
Net return over lbr & mgt		-13.22
Cost of Production Per Cwt. Produced		
Total direct expense per unit		97.51
Total dir & ovhd expense per unit		118.15
With other revenue adjustments		153.70
With labor and management		164.45
Est. labor hours per unit		0.79
Other Information		
Number of cows		182.3
Pregnancy percentage		98.4
Pregnancy loss percentage		0.1
Culling percentage		12.8
Calving percentage		98.3
Weaning percentage		93.5
Calves sold per cow		0.74
Calf death loss percent		7.9
Cow death loss percent		3.2
Average weaning weight		525
Lb. weaned/exposed female		491
Feed cost per cow		497.25
Avg wgt/ Beef Calves sold		652
Avg price / cwt.		152.91

Livestock Enterprise Analysis
North Dakota Farm Business Management Education Program
Region 4 - Western North Dakota, 2019
(Farms Sorted By Net Return)

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

	<u>Avg. Of All Farms</u>	
Number of farms	8	
	Quantity	Value
Beef Calves sold (lb)	178.0	272.17
Transferred out (lb)	277.2	425.55
Cull sales		95.97
Other income		1.37
Purchased		-198.87
Transferred in		-133.85
Inventory change		293.68
Gross margin		756.02
Direct Expenses		
Protein Vit Minerals (lb.)	1,942.2	39.25
Corn Silage (lb.)	1,651.7	23.14
Hay, Alfalfa (lb.)	903.6	42.77
Hay, Grass (lb.)	5,497.5	159.70
Pasture (aum)	11.0	222.58
Other feed stuffs (lb)	410.9	9.81
Veterinary		26.00
Supplies		17.80
Fuel & oil		27.16
Repairs		38.49
Custom hire		12.98
Utilities		3.33
Marketing		14.31
Total direct expenses		637.33
Return over direct expense		118.69
Overhead Expenses		
Hired labor		14.78
Farm insurance		10.38
Interest		23.93
Mach & bldg depreciation		57.04
Miscellaneous		28.74
Total overhead expenses		134.88
Total dir & ovhd expenses		772.20
Net return		-16.18
Labor & management charge		70.24
Net return over lbr & mgt		-86.42
Cost of Production Per Cwt. Produced		
Total direct expense per unit		97.51
Total dir & ovhd expense per unit		118.15
With other revenue adjustments		153.70
With labor and management		164.45
Est. labor hours per unit		5.19
Other Information		
Number of cows		182.3
Pregnancy percentage		98.4
Pregnancy loss percentage		0.1
Culling percentage		12.8
Calving percentage		98.3
Weaning percentage		93.5
Calves sold per cow		0.74
Calf death loss percent		7.9
Cow death loss percent		3.2
Average weaning weight		525
Lb. weaned/exposed female		491
Feed cost per cow		497.25
Avg wgt/ Beef Calves sold		652
Avg price / cwt.		152.91

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