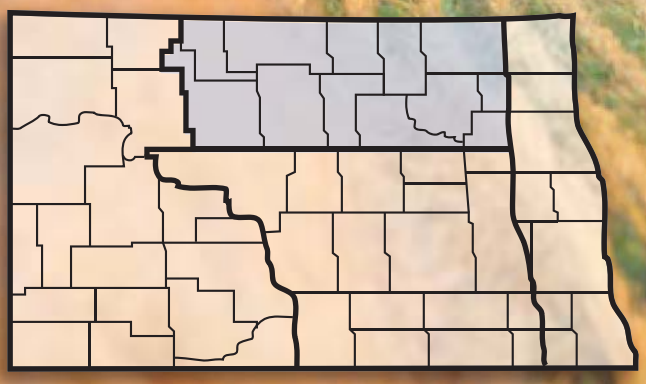
2015 ANNUAL REPORT
North Central North Dakota

North Dakota Farm and Ranch Business Management Education



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NORTH DAKOTA
FARM BUSINESS MANAGEMENT EDUCATION

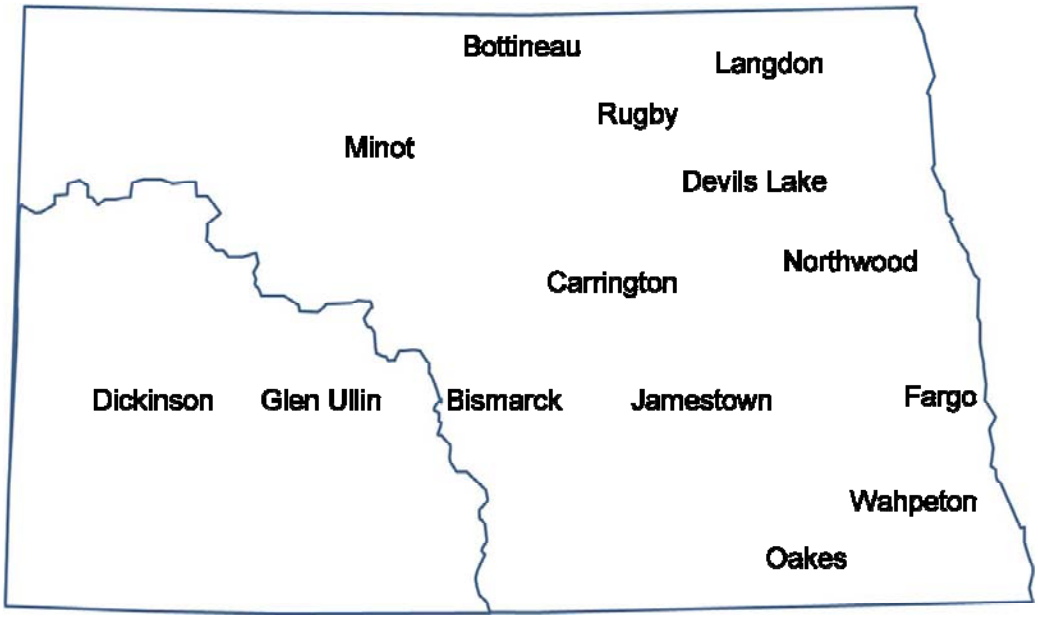
REGION 2 – NORTH CENTRAL AVERAGES
2015 ANNUAL REPORT

The North Central (Region 2) farm business analyses were submitted by the following instructors represented by their cooperating schools.

School	Instructor
Dakota College at Bottineau	Rodney Armstrong
Dakota College at Bottineau - Minot	BillieJo Shae
Dakota College at Bottineau - Rugby	Allen Graner
Lake Region State College - Devils Lake	Jason Fewell
	Jay Olson
	Craig Stromme
Lake Region State College - Langdon	Allison Thompson
Lake Region State College - Northwood	Sonja Flaagen

This report was made possible by the farm families who cooperated with their farm management instructors in getting the records for 2015 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



2015 North Central Report
North Dakota Farm Business Management Education

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INTRODUCTION

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

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

The 2015 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 27th 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 table lists cash farm income from all sources. There are three possible sources of cash income from crops. The first is income from cash sales. The second is income from crops stored under government loan programs when the loan is treated as income for the year in which the crop was stored. If the crop value has not been entered as income when it was stored, then it would be treated as cash income in the year it was sold. The third is Net Government Sales, which refers to the difference between income credited in the year a crop was stored and the actual cash income received at the time it was sold. There are two categories of cash income from livestock sales. "Raised" steer, hogs, and lambs refer to animals raised from birth to market weight on the farm. "Finished" animals refers to those purchased as feeders and fed to market weight. Government payments are grouped as “Direct, CCP & ACRE pymts;” “LDP payments” which are loan deficiency payments that may be received on production when local prices are below the county loan rate for the crop; “Other government payments” which refers to all other government payments such as disaster payments but not including CRP payments; and CRP payments.

The second section of the income statement lists cash expenses. "Labor" includes only labor hired. "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 operator's 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 $20,000 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
Region 2 - North Central North Dakota, 2015
(Farms Sorted By Net Farm Income)

	Avg. Of All Farms	*Low 20%*	*40 - 60%*	*High 20%*
Number of farms	165	33	33	33
Cash Farm Income				
Barley	48,586	72,183	15,307	77,557
Beans, Black Turtle	5,686	3,351	-	23,015
Beans, Navy	1,243	-	-	2,865
Beans, Pinto	23,297	57,232	8,877	19,776
Buckwheat	32	162	-	-
Canola	49,863	36,168	28,768	97,825
Corn	29,376	49,522	9,355	39,067
Flax	5,765	8,128	2,524	3,070
Hay, Mixed	374	76	-	105
Lentils	142	711	-	-
Oats	183	-	-	-
Peas, Field	4,458	10,976	-	5,923
Potatoes	9,451	-	-	47,255
Soybeans	105,038	118,722	83,410	149,524
Sunflowers	11,489	23,295	251	20,400
Sunflowers, Confectionary	4,069	3,660	-	12,954
Wheat, Durum	2,893	3,966	2,866	3,849
Wheat, Spring	131,233	186,000	76,729	171,897
Wheat, Winter	4,205	2,721	-	2,628
Custom Work	125	-	-	-
Soybeans, Food	949	2,199	-	-
Miscellaneous crop income	124	109	-	-
Beef Cow-Calf, Beef Calves	26,312	32,592	24,783	34,827
Beef Replacement Heifers	1,443	1,287	727	599
Beef Backgrounding	14,698	3,689	3,571	21,105
Beef Finishing	207	-	-	-
Beef Stockers	1,104	-	-	-
Beef Finish Cull Cows	139	-	-	-
Cull breeding livestock	5,011	5,722	1,020	8,480
Misc. livestock income	238	6	92	252
Crop government payments	15,701	21,140	10,953	23,589
CRP payments	1,044	1,811	784	1,459
Other government payments	11,807	17,084	2,202	19,475
Custom work income	8,112	4,358	4,322	24,443
Patronage dividends, cash	17,694	23,328	10,504	27,592
Crop insurance income	30,629	52,692	16,909	32,261
Property insurance income	2,157	2,107	1,880	2,348
Sale of resale items	969	-	-	2,644
Other farm income	10,697	14,245	10,507	17,647
Gross Cash Farm Income	586,542	759,241	316,344	894,430

Farm Income Statement (continued)
North Dakota Farm Business Management Education
Region 2 - North Central North Dakota, 2015
(Farms Sorted By Net Farm Income)

	Avg. Of All Farms	*Low 20%*	*40 - 60%*	*High 20%*
Number of farms	165	33	33	33
Cash Farm Expense				
Seed	73,063	96,230	44,722	101,971
Fertilizer	86,538	143,347	39,664	117,616
Crop chemicals	65,180	102,309	28,582	94,449
Crop insurance	27,582	44,065	14,109	34,992
Drying expense	436	899	-	836
Storage	82	251	36	102
Irrigation energy	149	-	-	634
Crop marketing	626	207	3	2,882
Crop miscellaneous	1,020	1,008	58	1,400
Consultants	1,020	763	58	2,412
Feeder livestock purchase	3,660	991	42	5,891
Purchased feed	4,757	2,742	2,870	8,316
Breeding fees	67	-	122	48
Veterinary	1,449	1,272	676	1,808
Supplies	1,349	1,396	662	1,310
Livestock leases	23	112	5	-
Livestock marketing	195	228	462	-
Interest	26,845	46,334	13,523	34,694
CCC buyback	2,386	11,931	-	-
Fuel & oil	28,085	42,698	14,329	38,262
Repairs	41,666	60,151	22,598	61,833
Custom hire	11,334	18,982	4,196	12,952
Hired labor	13,662	24,010	4,298	23,925
Land rent	65,918	96,662	45,714	87,193
Machinery leases	7,426	14,191	4,707	7,704
Building leases	277	440	-	787
Real estate taxes	4,195	5,788	1,845	6,739
Farm insurance	8,813	13,698	4,990	11,001
Utilities	6,390	8,394	3,903	9,059
Dues & professional fees	1,989	3,396	380	3,023
Purchase of resale items	527	-	22	2,207
Miscellaneous	5,229	7,912	2,634	6,116
Total cash expense	491,937	750,409	255,209	680,161
Net cash farm income	94,605	8,832	61,134	214,268
Inventory Changes				
Prepaids and supplies	-7,460	-16,540	-13,680	-8,707
Accounts receivable	284	4,025	-3,975	-14,902
Hedging accounts	1,962	-89	590	7,536
Other current assets	-997	-689	639	-3,972
Crops and feed	6,966	-13,741	16,397	71,824
Market livestock	-7,574	-9,197	-6,423	-307
Breeding livestock	385	877	655	6,014
Other assets	1,288	1,789	-744	3,465
Accounts payable	-825	10,566	-5,940	-3,567
Accrued interest	-935	-2,865	-379	626
Total inventory change	-6,908	-25,863	-12,860	58,009
Net operating profit	87,697	-17,031	48,274	272,278
Depreciation				
Machinery and equipment	-58,715	-93,314	-34,424	-76,892
Titled vehicles	-4,355	-6,300	-1,076	-5,837
Buildings and improvements	-4,022	-7,982	-523	-5,456
Total depreciation	-67,092	-107,596	-36,022	-88,185
Net farm income from operations	20,605	-124,627	12,252	184,092
Gain or loss on capital sales	-244	287	-	-1,061
Net farm income	20,361	-124,340	12,252	183,031

Inventory Changes
North Dakota Farm Business Management Education
Region 2 - North Central North Dakota, 2015
(Farms Sorted By Net Farm Income)

	Avg. Of All Farms	*Low 20%*	*40 - 60%*	*High 20%*
Number of farms	165	33	33	33
Net cash farm income	94,605	8,832	61,134	214,268
Crops and Feed				
Ending inventory	333,389	414,781	170,887	569,244
Beginning inventory	326,423	428,522	154,490	497,420
Inventory change	6,966	-13,741	16,397	71,824
Market Livestock				
Ending inventory	29,732	28,931	17,940	34,704
Beginning inventory	37,306	38,128	24,363	35,011
Inventory change	-7,574	-9,197	-6,423	-307
Accts Receivable				
Ending inventory	23,821	32,010	11,215	41,467
Beginning inventory	23,537	27,985	15,190	56,369
Inventory change	284	4,025	-3,975	-14,902
Prepaid Expenses and Supplies				
Ending inventory	40,172	51,036	17,133	69,754
Beginning inventory	47,633	67,576	30,813	78,461
Inventory change	-7,460	-16,540	-13,680	-8,707
Hedging Activities				
Ending inventory	3,826	1,813	604	12,307
Withdrawals	2,668	424	1,364	10,611
Beginning inventory	4,079	2,265	1,378	13,307
Deposits	452	61	-	2,075
Gain or loss	1,962	-89	590	7,536
Other Current Assets				
Ending inventory	967	473	639	3,164
Beginning inventory	1,964	1,162	-	7,136
Inventory change	-997	-689	639	-3,972
Breeding Livestock				
Ending inventory	64,821	59,445	57,629	65,892
Capital sales	4,227	1,444	3,300	8,785
Beginning inventory	54,385	56,071	36,764	62,915
Capital purchases	14,278	3,941	23,511	5,749
Depreciation, capital adjust	385	877	655	6,014
Other Capital Assets				
Ending inventory	66,312	81,533	44,895	88,192
Capital sales	1,440	2,386	2,527	666
Beginning inventory	60,266	72,040	41,491	79,356
Capital purchases	6,198	10,089	6,675	6,036
Depreciation, capital adjust	1,288	1,789	-744	3,465
Accounts Payable				
Beginning inventory	18,791	50,449	5,321	18,608
Ending inventory	19,616	39,883	11,261	22,175
Inventory change	-825	10,566	-5,940	-3,567
Accrued Interest				
Beginning inventory	14,087	24,842	6,179	20,152
Ending inventory	15,026	27,707	6,558	19,549
Inventory change	-935	-2,865	-379	626
Total inventory change	-6,908	-25,863	-12,860	58,009
Net operating profit	87,697	-17,031	48,274	272,278

Depreciation
North Dakota Farm Business Management Education
Region 2 - North Central North Dakota, 2015
(Farms Sorted By Net Farm Income)

	Avg. Of All Farms	*Low 20%*	*40 - 60%*	*High 20%*
Number of farms	165	33	33	33
Net operating profit	87,697	-17,031	48,274	272,278
Machinery and Equipment				
Ending inventory	647,984	978,530	390,414	874,599
Capital sales	9,628	22,598	2,625	9,633
Beginning inventory	655,327	1,009,111	396,147	864,296
Capital purchases	60,999	85,331	31,317	96,829
Depreciation, capital adjust.	-58,715	-93,314	-34,424	-76,892
Titled Vehicles				
Ending inventory	38,509	59,767	17,113	45,361
Capital sales	231	227	424	-
Beginning inventory	39,728	61,239	16,231	46,382
Capital purchases	3,368	5,056	2,381	4,817
Depreciation, capital adjust.	-4,355	-6,300	-1,076	-5,837
Buildings and Improvements				
Ending inventory	116,127	203,775	39,792	183,914
Capital sales	2,091	-	606	2,758
Beginning inventory	115,190	199,766	39,254	173,747
Capital purchases	7,049	11,991	1,667	18,381
Depreciation, capital adjust.	-4,022	-7,982	-523	-5,456
Total depreciation, capital adj.	-67,092	-107,596	-36,022	-88,185
Net farm income from operations	20,605	-124,627	12,252	184,092
Gain or loss on capital sales	-244	287	-	-1,061
Net farm income	20,361	-124,340	12,252	183,031

Profitability Measures
North Dakota Farm Business Management Education
Region 2 - North Central North Dakota, 2015
(Farms Sorted By Net Farm Income)

	Avg. Of All Farms	***Low 20%***	***40 - 60%***	***High 20%***
Number of farms	165	33	33	33
Profitability (assets valued at cost)				
Net farm income from operations	20,605	-124,627	12,252	184,092
Rate of return on assets	0.0 %	-5.2 %	-0.7 %	5.5 %
Rate of return on equity	-2.5 %	-14.3 %	-3.3 %	6.4 %
Operating profit margin	0.0 %	-18.0 %	-2.2 %	15.8 %
Asset turnover rate	31.4 %	28.6 %	31.2 %	34.9 %
Farm interest expense	27,780	49,199	13,902	34,068
Value of operator lbr and mgmt.	48,199	57,548	33,166	67,762
Return on farm assets	186	-132,976	-7,013	150,399
Average farm assets	1,848,766	2,580,510	1,024,490	2,724,569
Return on farm equity	-27,594	-182,175	-20,915	116,331
Average farm equity	1,111,751	1,273,771	629,931	1,829,146
Value of farm production	580,907	739,173	319,909	951,645

Liquidity & Repayment Capacity Measures
North Dakota Farm Business Management Education
Region 2 - North Central North Dakota, 2015
(Farms Sorted By Net Farm Income)

	Avg. Of All Farms	*Low 20%*	*40 - 60%*	*High 20%*
Number of farms	165	33	33	33
Liquidity				
Current ratio	1.50	1.06	1.38	2.23
Working capital	174,301	37,030	73,916	497,723
Working capital to gross inc	29.6 %	5.0 %	22.9 %	51.4 %
Current assets	520,914	666,245	267,095	901,743
Current liabilities	346,614	629,215	193,179	404,020
Gross revenues (accrual)	589,850	742,906	322,843	968,059
Repayment capacity				
Net farm income from operations	20,605	-124,627	12,252	184,092
Depreciation	67,092	107,596	36,022	88,185
Personal income	30,882	34,433	25,432	24,250
Family living/owner withdrawals	-66,395	-79,550	-57,509	-84,935
Cash discrepancy	6	52	12	30
Payments on personal debt	-4,115	-7,198	-4,338	-2,905
Income taxes paid	-16,280	-19,617	-8,747	-26,751
Interest on term debt	18,490	31,872	8,464	23,966
Capital debt repayment capacity	50,279	-57,091	11,577	205,903
Scheduled term debt payments	-90,679	-152,969	-44,409	-114,456
Capital debt repayment margin	-40,399	-210,060	-32,831	91,448
Cash replacement allowance	-24,498	-26,270	-14,588	-40,042
Replacement margin	-64,897	-236,330	-47,420	51,406
Term debt coverage ratio	0.55	-0.37	0.26	1.80
Replacement coverage ratio	0.44	-0.32	0.20	1.33

Balance Sheet at Cost Values
North Dakota Farm Business Management Education
Region 2 - North Central North Dakota, 2015
(Farms Sorted By Net Farm Income)

	Avg. Of All Farms	Low 20%	40 - 60%	High 20%
Number of farms	165	33	33	33
Assets				
Current Farm Assets				
Cash and checking balance	75,876	90,629	46,864	156,168
Prepaid expenses & supplies	40,172	51,036	17,133	69,754
Growing crops	915	473	639	3,164
Accounts receivable	23,821	32,010	11,215	41,467
Hedging accounts	3,826	1,813	604	12,307
Crops held for sale or feed	329,803	405,753	169,969	562,039
Crops under government loan	16,718	55,600	2,732	22,140
Market livestock held for sale	29,732	28,931	17,940	34,704
Other current assets	52	-	-	-
Total current farm assets	520,914	666,245	267,095	901,743
Intermediate Farm Assets				
Breeding livestock	64,821	59,445	57,629	65,892
Machinery and equipment	647,984	978,530	390,414	874,599
Titled vehicles	38,509	59,767	17,113	45,361
Other intermediate assets	43,150	51,434	43,483	50,468
Total intermediate farm assets	794,464	1,149,176	508,640	1,036,322
Long Term Farm Assets				
Farm land	407,821	528,615	221,462	613,804
Buildings and improvements	116,127	203,775	39,792	183,914
Other long-term assets	23,161	30,099	1,412	37,724
Total long-term farm assets	547,109	762,488	262,665	835,442
Total Farm Assets	1,862,487	2,577,909	1,038,400	2,773,507
Total Nonfarm Assets	271,326	390,776	195,597	290,382
Total Assets	2,133,813	2,968,684	1,233,997	3,063,889
Liabilities				
Current Farm Liabilities				
Accrued interest	15,038	27,752	6,560	19,555
Accounts payable	19,616	39,883	11,261	22,175
Current notes	236,508	427,235	136,596	269,373
Government crop loans	8,986	32,626	2,122	8,948
Principal due on term debt	66,466	101,719	36,640	83,968
Total current farm liabilities	346,614	629,215	193,179	404,020
Total intermediate farm liabs	184,716	344,412	97,022	196,033
Total long term farm liabilities	239,810	417,599	133,948	309,103
Total farm liabilities	771,139	1,391,225	424,149	909,156
Total nonfarm liabilities	52,894	104,811	43,565	47,709
Total liabilities	824,034	1,496,036	467,714	956,866
Net worth (farm and nonfarm)	1,309,779	1,472,648	766,283	2,107,023
Net worth change	-26,394	-159,149	-26,194	94,450
Percent net worth change	-2 %	-10 %	-3 %	5 %
Ratio Analysis				
Current farm liabilities / assets	67 %	94 %	72 %	45 %
Intermediate farm liab. / assets	23 %	30 %	19 %	19 %
Long term farm liab. / assets	44 %	55 %	51 %	37 %
Total debt to asset ratio	39 %	50 %	38 %	31 %

Statement Of Cash Flows
North Dakota Farm Business Management Education
Region 2 - North Central North Dakota, 2015
(Farms Sorted By Net Farm Income)

	Avg. Of All Farms	*Low 20%*	*40 - 60%*	*High 20%*
Number of farms	165	33	33	33
Beginning cash (farm & nonfarm)	83,908	108,610	52,734	164,065
Cash Provided By Operating Activities				
Gross cash farm income	586,542	759,241	316,344	894,430
Total cash farm expense	-491,937	-750,409	-255,209	-680,161
Net cash from hedging transactions	2,216	364	1,364	8,536
Cash provided by operating	96,821	9,196	62,498	222,805
Cash Provided By Investing Activities				
Sale of breeding livestock	4,227	1,444	3,300	8,785
Sale of machinery & equipment	9,314	22,598	2,625	8,572
Sale of titled vehicles	235	227	424	-
Sale of farm land	1,528	1,288	242	1,288
Sale of farm buildings	2,091	-	606	2,758
Sale of other farm assets	1,506	2,673	2,527	666
Sale of nonfarm assets	1,627	2,725	667	1,161
Purchase of breeding livestock	-14,278	-3,941	-23,511	-5,749
Purchase of machinery & equip.	-60,999	-85,331	-31,317	-96,829
Purchase of titled vehicles	-3,368	-5,056	-2,381	-4,817
Purchase of farm land	-15,974	-13,270	-16,061	-10,716
Purchase of farm buildings	-7,049	-11,991	-1,667	-18,381
Purchase of other farm assets	-6,198	-10,089	-6,675	-6,036
Purchase of nonfarm assets	-19,457	-48,145	-7,483	-19,565
Cash provided by investing	-106,795	-146,869	-78,703	-138,864
Cash Provided By Financing Activities				
Money borrowed	564,372	1,137,081	259,314	706,072
Principal payments	-505,815	-974,710	-207,279	-701,065
Personal income	30,882	34,433	25,432	24,250
Family living/owner withdrawals	-66,395	-79,550	-57,509	-84,935
Income and social security tax	-16,805	-18,975	-8,968	-29,238
Capital contributions	290	804	-	-
Capital distributions	-18	-	-	-
Dividends paid	-	-	-	-
Cash gifts and inheritances	6,790	25,433	1,419	456
Gifts given	-2,596	-303	-	-949
Other cash flows	-	-	-	-
Cash provided by financing	10,705	124,213	12,409	-85,409
Net change in cash balance	730	-13,460	-3,795	-1,468
Ending cash (farm & nonfarm)	84,645	95,203	48,951	162,627
Discrepancy	-6	-52	-12	-30

Financial Standards Measures
North Dakota Farm Business Management Education
Region 2 - North Central North Dakota, 2015
(Farms Sorted By Net Farm Income)

	Avg. Of All Farms	*Low 20%*	*40 - 60%*	*High 20%*
Number of farms	165	33	33	33
Liquidity				
Current ratio	1.50	1.06	1.38	2.23
Working capital	174,301	37,030	73,916	497,723
Working capital to gross inc	29.6 %	5.0 %	22.9 %	51.4 %
Solvency (cost)				
Farm debt to asset ratio	41 %	54 %	41 %	33 %
Farm equity to asset ratio	59 %	46 %	59 %	67 %
Farm debt to equity ratio	0.71	1.17	0.69	0.49
Profitability (cost)				
Rate of return on farm assets	0.0 %	-5.2 %	-0.7 %	5.5 %
Rate of return on farm equity	-2.5 %	-14.3 %	-3.3 %	6.4 %
Operating profit margin	0.0 %	-18.0 %	-2.2 %	15.8 %
Net farm income	20,361	-124,340	12,252	183,031
EBITDA	115,477	32,168	62,176	306,346
Repayment Capacity				
Capital debt repayment capacity	50,279	-57,091	11,577	205,903
Capital debt repayment margin	-40,399	-210,060	-32,831	91,448
Replacement margin	-64,897	-236,330	-47,420	51,406
Term debt coverage ratio	0.55	-0.37	0.26	1.80
Replacement coverage ratio	0.44	-0.32	0.20	1.33
Efficiency				
Asset turnover rate (cost)	31.4 %	28.6 %	31.2 %	34.9 %
Operating expense ratio	80.4 %	95.7 %	80.7 %	68.4 %
Depreciation expense ratio	11.4 %	14.5 %	11.2 %	9.1 %
Interest expense ratio	4.7 %	6.6 %	4.3 %	3.5 %
Net farm income ratio	3.5 %	-16.7 %	3.8 %	18.9 %

Crop Production and Marketing Summary
North Dakota Farm Business Management Education
Region 2 - North Central North Dakota, 2015
(Farms Sorted By Net Farm Income)

	Avg. Of All Farms	*Low 20%*	*40 - 60%*	*High 20%*
Number of farms	165	33	33	33
Acreage Summary				
Total acres owned	813	1,059	432	1,291
Total crop acres	1,983	2,802	1,187	2,724
Crop acres owned	576	770	256	930
Crop acres cash rented	1,256	1,910	802	1,589
Crop acres share rented	151	122	129	206
Total pasture acres	308	292	136	442
Percent crop acres owned	29 %	27 %	22 %	34 %
Mach invest/crop acre cost	348	376	344	336
Average Price Received (Cash Sales Only)				
Wheat, Spring per bushel	5.02	5.01	5.02	5.03
Soybeans per bushel	8.75	8.63	8.73	8.86
Canola per cwt	16.81	15.14	15.31	17.97
Barley per bushel	5.07	5.07	5.13	5.18
Corn per bushel	3.00	3.01	3.04	3.08
Beans, Pinto per cwt	23.15	22.93	23.27	24.22
Sunflowers per cwt	22.20	20.21	-	23.93
Wheat, Winter per bushel	3.83	2.89	-	3.96
Flax per bushel	10.26	-	-	-
Peas, Field per bushel	7.70	7.69	-	-
Wheat, Durum per bushel	7.41	-	-	-
Sunflowers, Confectionary per cwt	32.53	-	-	-
Beans, Black Turtle per cwt	28.84	-	-	-
Average Yield Per Acre				
Wheat, Spring (bushel)	54.69	51.73	54.58	58.60
Soybeans (bushel)	28.39	24.93	29.74	30.65
Canola (cwt)	18.07	16.76	16.69	19.85
Barley (bushel)	68.63	67.08	60.35	68.75
Pasture (aum)	0.974	1.13	0.915	1.01
Corn (bushel)	109.14	102.61	97.87	110.76
Hay, Grass (ton)	1.21	1.04	1.41	1.18
Flax (bushel)	23.67	19.84	19.91	22.39
Beans, Pinto (cwt)	13.58	13.00	14.08	15.12
Sunflowers (cwt)	15.87	16.29	-	17.19
Peas, Field (bushel)	43.22	37.39	-	49.78
Hay, Mixed Alfalfa/Grass (ton)	1.43	-	1.19	1.87
Hay, Alfalfa (ton)	1.75	-	-	1.59
Corn Silage (ton)	13.60	-	-	-
Wheat, Durum (bushel)	53.69	-	-	54.13
Hay, Small Grain (ton)	2.31	-	-	-
Wheat, Winter (bushel)	49.73	-	-	-

Household and Personal Expenses
North Dakota Farm Business Management Education
Region 2 - North Central North Dakota, 2015
(Farms Sorted By Net Farm Income)

	Avg. Of All Farms	*Low 20%*	*40 - 60%*	*High 20%*
Number of farms	92	19	15	19
Average family size	3.0	3.2	2.8	2.8
Family Living Expenses				
Food and meals expense	8,980	11,582	7,020	9,140
Medical care	6,008	8,442	4,538	8,358
Health insurance	9,559	9,674	8,039	11,765
Cash donations	1,985	2,358	1,079	1,942
Household supplies	5,748	8,323	5,943	5,616
Clothing	2,161	2,542	1,297	2,042
Personal care	7,672	7,665	13,734	6,672
Child / Dependent care	689	251	1,752	582
Gifts	2,224	1,752	1,334	2,641
Education	1,213	2,104	388	529
Recreation	5,181	5,288	5,090	7,669
Utilities (household share)	4,248	4,673	4,054	4,935
Personal vehicle operating exp	3,521	4,020	3,545	3,252
Household real estate taxes	272	395	251	297
Dwelling rent	209	17	-	271
Household repairs	2,847	2,848	2,963	3,945
Personal interest	1,474	2,655	1,441	1,318
Disability / Long term care ins	236	207	276	640
Life insurance payments	2,985	3,439	1,558	4,352
Personal property insurance	160	74	124	151
Miscellaneous	4,608	4,192	3,192	7,031
Total cash family living expense	71,980	82,500	67,617	83,147
Family living from the farm	187	245	-	110
Total family living	72,167	82,745	67,617	83,257
Other Nonfarm Expenditures				
Income taxes	18,024	26,580	12,063	22,427
Furnishing & appliance purchases	-35	146	-	-316
Nonfarm vehicle purchases	2,799	1,522	173	3,059
Nonfarm real estate purchases	13,393	57,375	2,370	2,890
Other nonfarm capital purchases	207	-3	-	-
Nonfarm savings & investments	6,837	3,804	4,432	12,897
Total other nonfarm expenditures	41,225	89,423	19,038	40,956
Total cash family living investment & nonfarm capital purch	113,206	171,924	86,656	124,104

Operator and Labor Information
North Dakota Farm Business Management Education
Region 2 - North Central North Dakota, 2015
(Farms Sorted By Net Farm Income)

	Avg. Of All Farms	*Low 20%*	*40 - 60%*	*High 20%*
Number of farms	165	33	33	33
Operator Information				
Average number of operators	1.0	1.0	1.0	1.1
Average age of operators	44.0	47.7	40.0	47.3
Average number of years farming	19.8	23.4	15.8	23.6
Results Per Operator				
Working capital	167,207	37,030	71,742	456,246
Total assets (cost)	2,046,972	2,968,684	1,197,703	2,808,565
Total liabilities	790,498	1,496,036	453,957	877,127
Net worth (cost)	1,256,474	1,472,648	743,745	1,931,438
Gross farm income	565,845	742,906	313,347	887,388
Total farm expense	546,078	867,533	301,456	718,636
Net farm income from operations	19,767	-124,627	11,891	168,751
Net nonfarm income	29,625	34,433	24,684	22,229
Family living & tax withdrawals	79,304	99,115	64,295	102,351
Total acres owned	779.6	1,058.9	419.0	1,183.6
Total crop acres	1,902.4	2,801.7	1,151.7	2,497.4
Crop acres owned	552.6	769.7	248.5	852.1
Crop acres cash rented	1,204.8	1,909.5	778.4	1,456.5
Crop acres share rented	144.9	122.4	124.9	188.9
Total pasture acres	295.3	291.7	132.4	405.3
Labor Analysis				
Number of farms	165	33	33	33
Total unpaid labor hours	2,062	2,367	1,476	2,594
Total hired labor hours	683	1,082	252	1,142
Total labor hours per farm	2,746	3,449	1,728	3,736
Unpaid hours per operator	1,978	2,367	1,432	2,378

Nonfarm Summary
North Dakota Farm Business Management Education
Region 2 - North Central North Dakota, 2015
(Farms Sorted By Net Farm Income)

	Avg. Of All Farms	*Low 20%*	*40 - 60%*	*High 20%*
Number of farms	165	33	33	33
Nonfarm Income				
Personal wages & salary	17,534	11,566	20,882	11,646
Net nonfarm business income	4,326	8,782	1,086	770
Personal rental income	2,008	2,553	-	3,267
Personal interest income	392	1,622	105	76
Personal cash dividends	399	41	-	1,647
Tax refunds	945	1,318	993	531
Other nonfarm income	5,278	8,552	2,366	6,313
Total nonfarm income	30,882	34,433	25,432	24,250
Gifts and inheritances	6,790	25,433	1,419	456

Financial Summary
North Dakota Farm Business Management Education
Region 2 - North Central North Dakota, 2015
(Farms Sorted By Gross Farm Income)

	Avg. Of All Farms	*Less than 100,000*	*100,001 - 250,000*	*250,001 - 500,000*	*500,001 - 1,000,000*	*1,000,001- 2,000,000*
Number of farms	165	15	26	39	59	23
Income Statement						
Gross cash farm income	586,542	35,769	167,868	383,145	679,218	1,328,284
Total cash farm expense	491,937	43,223	136,800	320,235	565,301	1,136,056
Net cash farm income	94,605	-7,454	31,068	62,910	113,916	192,228
Inventory change	-6,908	15,458	-5,203	-13,939	-23,282	45,295
Depreciation	-67,092	-2,642	-10,871	-39,206	-79,816	-156,908
Net farm income from operations	20,605	5,362	14,994	9,765	10,819	80,615
Gain or loss on capital sales	-244	-	-31	-59	-222	-1,043
Average net farm income	20,361	5,362	14,963	9,706	10,597	79,572
Median net farm income	10,847	-3,261	11,469	-13,406	16,150	70,104
Profitability (cost)						
Rate of return on assets	0.0 %	-3.8 %	0.1 %	-1.0 %	-0.4 %	1.3 %
Rate of return on equity	-2.5 %	-28.4 %	-3.3 %	-4.9 %	-3.1 %	-0.4 %
Operating profit margin	0.0 %	-11.9 %	0.3 %	-2.9 %	-1.2 %	3.7 %
Asset turnover rate	31.4 %	32.0 %	34.4 %	34.7 %	29.7 %	34.0 %
Liquidity & Repayment (end of year)						
Current assets	520,914	38,633	130,458	311,051	606,917	1,109,305
Current liabilities	346,614	34,945	96,215	241,187	393,450	774,219
Current ratio	1.50	1.11	1.36	1.29	1.54	1.43
Working capital	174,301	3,688	34,243	69,864	213,467	335,086
Working capital to gross inc	29.6 %	6.9 %	20.0 %	18.1 %	31.9 %	24.4 %
Term debt coverage ratio	0.55	0.57	0.53	0.37	0.38	0.87
Replacement coverage ratio	0.44	0.49	0.47	0.30	0.30	0.68
Term debt to EBITDA	3.39	6.40	4.06	3.69	3.76	2.86
Solvency (end of year at cost)						
Number of farms	165	15	26	39	59	23
Total assets	2,133,813	232,860	617,036	1,307,672	2,542,955	4,559,124
Total liabilities	824,034	179,913	308,369	550,828	955,353	1,767,752
Net worth	1,309,779	52,946	308,666	756,845	1,587,602	2,791,373
Net worth change	-26,394	1,770	165	-21,477	-49,090	-9,661
Farm debt to asset ratio	41 %	83 %	54 %	46 %	40 %	41 %
Total debt to asset ratio	39 %	77 %	50 %	42 %	38 %	39 %
Change in earned net worth %	-2 %	3 %	0 %	-3 %	-3 %	0 %
Nonfarm Information						
Net nonfarm income	30,882	26,017	25,813	27,743	35,642	35,655
Farms reporting living expenses	92	5	12	20	40	13
Total family living expense	72,167	36,225	48,080	61,899	79,039	99,318
Crop Acres						
Total crop acres	1,983	162	616	1,479	2,403	3,888
Total crop acres owned	576	39	126	349	796	1,120
Total crop acres cash rented	1,256	90	407	986	1,467	2,461
Total crop acres share rented	151	33	83	143	140	307
Machinery value per crop acre	348	107	189	261	355	400

Financial Summary
North Dakota Farm Business Management Education
Region 2 - North Central North Dakota, 2015
(Farms Sorted By Age of Operator)

	Avg. Of All Farms	*Less Than 31*	*31 - 40*	*41 - 50*	*51 - 60*	*Over 60*
Number of farms	165	37	29	37	42	20
Income Statement						
Gross cash farm income	586,542	260,289	543,414	711,995	747,090	683,411
Total cash farm expense	491,937	219,506	491,895	609,858	618,031	513,048
Net cash farm income	94,605	40,783	51,519	102,137	129,059	170,363
Inventory change	-6,908	3,025	33,137	-7	-34,542	-38,083
Depreciation	-67,092	-17,985	-61,524	-86,643	-93,746	-73,871
Net farm income from operations	20,605	25,823	23,132	15,487	770	58,409
Gain or loss on capital sales	-244	-22	-80	-204	-208	-1,042
Average net farm income	20,361	25,801	23,052	15,284	562	57,368
Median net farm income	10,847	19,638	2,826	1,370	-14,195	33,789
Profitability (cost)						
Rate of return on assets	0.0 %	1.6 %	0.8 %	-0.2 %	-0.9 %	1.0 %
Rate of return on equity	-2.5 %	-1.2 %	-3.5 %	-3.2 %	-3.3 %	0.4 %
Operating profit margin	0.0 %	3.3 %	2.2 %	-0.6 %	-3.3 %	3.8 %
Asset turnover rate	31.4 %	49.3 %	35.2 %	33.3 %	27.1 %	27.1 %
Liquidity & Repayment (end of year)						
Current assets	520,914	166,863	448,068	582,645	768,948	646,464
Current liabilities	346,614	124,296	395,742	400,913	484,731	296,162
Current ratio	1.50	1.34	1.13	1.45	1.59	2.18
Working capital	174,301	42,567	52,326	181,732	284,216	350,302
Working capital to gross inc	29.6 %	16.1 %	8.9 %	24.8 %	39.9 %	52.3 %
Term debt coverage ratio	0.55	0.81	0.73	0.58	0.28	0.94
Replacement coverage ratio	0.44	0.72	0.60	0.50	0.22	0.53
Term debt to EBITDA	3.39	3.23	4.43	3.71	3.38	1.73
Solvency (end of year at cost)						
Number of farms	165	37	29	37	42	20
Total assets	2,133,813	643,788	1,926,184	2,566,346	2,874,818	2,835,127
Total liabilities	824,034	378,696	1,075,570	1,002,015	968,765	649,980
Net worth	1,309,779	265,091	850,614	1,564,331	1,906,053	2,185,147
Net worth change	-26,394	5,347	12,922	-24,447	-84,666	-23,355
Farm debt to asset ratio	41 %	61 %	58 %	44 %	36 %	23 %
Total debt to asset ratio	39 %	59 %	56 %	39 %	34 %	23 %
Change in earned net worth %	-2 %	2 %	2 %	-2 %	-4 %	-1 %
Nonfarm Information						
Net nonfarm income	30,882	18,051	35,354	45,374	26,346	30,850
Farms reporting living expenses	92	13	18	18	27	16
Total family living expense	72,167	52,777	70,420	76,901	81,455	68,886
Crop Acres						
Total crop acres	1,983	888	1,911	2,374	2,469	2,369
Total crop acres owned	576	127	440	534	824	1,162
Total crop acres cash rented	1,256	708	1,230	1,769	1,411	1,029
Total crop acres share rented	151	54	240	71	233	178
Machinery value per crop acre	348	198	324	354	409	335

Financial Summary
North Dakota Farm Business Management Education
Region 2 - North Central North Dakota, 2015
(Farms Sorted By Farm Type)

	Avg. Of All Farms	*Crop*	*Beef*	*Crop and Beef*	*Other*
Number of farms	165	108	17	25	15
Income Statement					
Gross cash farm income	586,542	691,489	161,957	520,235	422,635
Total cash farm expense	491,937	583,003	108,702	436,360	363,228
Net cash farm income	94,605	108,486	53,255	83,875	59,407
Inventory change	-6,908	-3,953	15,814	-54,154	24,814
Depreciation	-67,092	-79,310	-12,511	-56,425	-58,760
Net farm income from operations	20,605	25,223	56,558	-26,704	25,461
Gain or loss on capital sales	-244	-406	-	147	-
Average net farm income	20,361	24,816	56,558	-26,557	25,461
Median net farm income	10,847	23,942	18,999	-29,731	-3,261
Profitability (cost)					
Rate of return on assets	0.0 %	0.0 %	6.2 %	-2.1 %	1.1 %
Rate of return on equity	-2.5 %	-2.3 %	8.0 %	-7.0 %	-1.7 %
Operating profit margin	0.0 %	0.0 %	27.9 %	-8.1 %	3.3 %
Asset turnover rate	31.4 %	32.8 %	22.2 %	25.9 %	32.9 %
Liquidity & Repayment (end of year)					
Current assets	520,914	639,314	153,522	390,448	302,256
Current liabilities	346,614	408,523	82,895	316,729	249,553
Current ratio	1.50	1.56	1.85	1.23	1.21
Working capital	174,301	230,791	70,628	73,719	52,703
Working capital to gross inc	29.6 %	33.0 %	39.3 %	15.3 %	11.8 %
Term debt coverage ratio	0.55	0.54	1.67	0.19	0.88
Replacement coverage ratio	0.44	0.41	1.54	0.17	0.70
Term debt to EBITDA	3.39	2.98	2.68	7.62	3.62
Solvency (end of year at cost)					
Number of farms	165	108	17	25	15
Total assets	2,133,813	2,466,703	862,956	1,938,001	1,503,665
Total liabilities	824,034	912,987	336,503	827,286	730,683
Net worth	1,309,779	1,553,716	526,453	1,110,715	772,981
Net worth change	-26,394	-40,881	42,796	-24,877	-3,029
Farm debt to asset ratio	41 %	40 %	43 %	46 %	49 %
Total debt to asset ratio	39 %	37 %	39 %	43 %	49 %
Change in earned net worth %	-2 %	-3 %	9 %	-2 %	0 %
Nonfarm Information					
Net nonfarm income	30,882	32,365	26,303	30,404	26,192
Farms reporting living expenses	92	62	8	15	7
Total family living expense	72,167	78,829	52,919	61,431	58,163
Crop Acres					
Total crop acres	1,983	2,300	537	1,885	1,504
Total crop acres owned	576	616	218	703	480
Total crop acres cash rented	1,256	1,509	290	1,069	842
Total crop acres share rented	151	175	29	113	182
Machinery value per crop acre	348	364	227	287	352

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 operator's and family's unpaid labor, management, and equity. It represents the return to all of the resources which are owned by the farm family and hence, not purchased or paid a wage. Net returns are also calculated after a charge for unpaid operator labor and management and after an allocation of direct government payments. The last section of each crop table contains breakeven yield measures which provide useful standards or goals for the individual managers.

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

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

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

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

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

Crop Enterprise Analysis
North Dakota Farm Business Management Education
Region 2 - North Central North Dakota, 2015
(Farms Sorted By Net Return)

Barley on Owned Land

	Avg. Of All Farms	Low 20%	40 - 60%	High 20%
Number of farms	27	5	6	6
Acres	260.65	101.69	271.80	287.90
Yield per acre (bu.)	65.59	55.33	60.83	77.71
Operators share of yield %	100.00	100.00	100.00	100.00
Value per bu.	4.87	3.90	4.61	5.29
Total product return per acre	319.66	215.66	280.62	411.05
Crop insurance per acre	12.71	4.52	2.80	-
Other crop income per acre	1.29	-	-	-
Gross return per acre	333.66	220.18	283.42	411.05
Direct Expenses				
Seed	17.08	20.54	15.16	17.86
Fertilizer	54.23	50.20	44.57	44.64
Crop chemicals	36.91	30.90	39.79	33.17
Crop insurance	18.18	17.53	18.92	16.21
Fuel & oil	14.34	12.50	14.36	13.63
Repairs	22.46	16.37	24.41	19.24
Custom hire	2.20	1.35	-	5.19
Operating interest	4.16	5.01	1.19	4.98
Miscellaneous	0.35	-	0.93	0.02
Total direct expenses per acre	169.92	154.40	159.33	154.92
Return over direct exp per acre	163.74	65.78	124.09	256.13
Overhead Expenses				
Custom hire	2.59	5.68	-	8.08
Hired labor	8.67	5.86	10.73	8.67
Machinery leases	0.73	0.76	0.39	0.19
Building leases	0.12	1.01	-	0.05
RE & pers. property taxes	5.82	7.42	4.71	5.71
Farm insurance	4.09	4.62	3.91	2.92
Utilities	2.78	2.68	2.84	1.36
Dues & professional fees	0.77	0.47	0.43	0.70
Interest	15.92	37.28	7.81	13.17
Mach & bldg depreciation	31.51	33.96	27.09	23.39
Miscellaneous	2.76	6.35	2.03	1.43
Total overhead expenses per acre	75.76	106.08	59.96	65.66
Total dir & ovhd expenses per acre	245.68	260.48	219.29	220.58
Net return per acre	87.98	-40.30	64.13	190.47
Government payments	9.90	12.43	3.71	4.14
Net return with govt pmts	97.88	-27.87	67.84	194.61
Labor & management charge	21.02	18.52	19.66	19.99
Net return over lbr & mgt	76.85	-46.38	48.18	174.62
Cost of Production				
Total direct expense per bu.	2.59	2.79	2.62	1.99
Total dir & ovhd exp per bu.	3.75	4.71	3.61	2.84
Less govt & other income	3.38	4.40	3.50	2.79
With labor & management	3.70	4.74	3.82	3.04
Net value per unit	4.87	3.90	4.61	5.29
Machinery cost per acre	75.07	73.41	67.46	70.72
Est. labor hours per acre	1.30	1.25	1.41	1.21

Crop Enterprise Analysis
North Dakota Farm Business Management Education
Region 2 - North Central North Dakota, 2015
(Farms Sorted By Net Return)

Barley on Cash Rent

	Avg. Of All Farms	Low 20%	40 - 60%	High 20%
Number of farms	39	7	8	8
Acres	400.37	243.85	618.59	293.88
Yield per acre (bu.)	69.53	57.46	69.25	76.43
Operators share of yield %	100.00	100.00	100.00	100.00
Value per bu.	4.91	3.76	4.95	5.51
Total product return per acre	341.40	216.21	342.82	421.40
Crop insurance per acre	11.72	18.11	7.21	14.48
Other crop income per acre	0.26	-	-	-
Gross return per acre	353.38	234.32	350.03	435.88
Direct Expenses				
Seed	21.11	20.15	21.92	18.24
Fertilizer	59.92	43.92	59.95	52.45
Crop chemicals	37.76	33.73	36.01	36.40
Crop insurance	16.77	11.36	20.29	15.40
Fuel & oil	13.58	16.06	12.10	15.73
Repairs	20.08	18.34	22.43	18.47
Custom hire	3.90	6.43	5.17	1.34
Land rent	51.48	64.17	49.39	54.91
Operating interest	4.85	4.54	2.49	5.37
Miscellaneous	0.95	-	2.02	0.69
Total direct expenses per acre	230.40	218.69	231.75	219.00
Return over direct exp per acre	122.98	15.63	118.27	216.88
Overhead Expenses				
Custom hire	1.79	2.03	1.08	7.42
Hired labor	8.13	6.58	9.13	11.31
Machinery leases	3.14	7.36	2.70	1.15
Farm insurance	4.06	4.31	4.08	4.56
Utilities	2.92	2.61	2.90	3.25
Dues & professional fees	0.92	0.34	1.08	0.99
Interest	3.67	3.89	3.39	3.22
Mach & bldg depreciation	35.60	29.83	37.86	31.76
Miscellaneous	2.44	4.84	1.50	2.00
Total overhead expenses per acre	62.68	61.80	63.72	65.67
Total dir & ovhd expenses per acre	293.07	280.48	295.48	284.67
Net return per acre	60.30	-46.16	54.55	151.20
Government payments	11.68	6.38	7.62	8.76
Net return with govt pmts	71.98	-39.78	62.17	159.96
Labor & management charge	23.32	22.19	20.39	25.29
Net return over lbr & mgt	48.66	-61.97	41.78	134.67
Cost of Production				
Total direct expense per bu.	3.31	3.81	3.35	2.87
Total dir & ovhd exp per bu.	4.21	4.88	4.27	3.72
Less govt & other income	3.87	4.46	4.05	3.42
With labor & management	4.21	4.84	4.35	3.75
Net value per unit	4.91	3.76	4.95	5.51
Machinery cost per acre	80.13	83.14	83.21	76.83
Est. labor hours per acre	1.25	1.22	1.11	1.52

Crop Enterprise Analysis
North Dakota Farm Business Management Education
Region 2 - North Central North Dakota, 2015
(Farms Sorted By Net Return)

Beans, Pinto on Cash Rent

	Avg. Of All Farms
Number of farms	13
Acres	391.72
Yield per acre (cwt.)	13.58
Operators share of yield %	100.00
Value per cwt.	21.65
Total product return per acre	294.00
Crop insurance per acre	53.35
Gross return per acre	347.35
Direct Expenses	
Seed	66.10
Fertilizer	41.58
Crop chemicals	80.42
Crop insurance	18.95
Fuel & oil	19.44
Repairs	22.49
Custom hire	0.58
Land rent	51.57
Operating interest	5.54
Total direct expenses per acre	306.66
Return over direct exp per acre	40.69
Overhead Expenses	
Custom hire	3.63
Hired labor	10.30
Machinery leases	4.81
Farm insurance	4.68
Utilities	2.86
Dues & professional fees	0.99
Interest	4.98
Mach & bldg depreciation	47.12
Miscellaneous	3.46
Total overhead expenses per acre	82.84
Total dir & ovhd expenses per acre	389.50
Net return per acre	-42.15
Government payments	10.49
Net return with govt pmts	-31.67
Labor & management charge	27.70
Net return over lbr & mgt	-59.36
Cost of Production	
Total direct expense per cwt.	22.58
Total dir & ovhd exp per cwt.	28.68
Less govt & other income	23.98
With labor & management	26.02
Net value per unit	21.65
Machinery cost per acre	100.79
Est. labor hours per acre	1.46

Crop Enterprise Analysis
North Dakota Farm Business Management Education
Region 2 - North Central North Dakota, 2015
(Farms Sorted By Net Return)

Canola on Owned Land

	Avg. Of All Farms	***Low 20%***	***40 - 60%***	***High 20%***
Number of farms	32	6	7	7
Acres	212.58	170.05	194.27	204.74
Yield per acre (cwt.)	17.99	14.98	18.44	20.96
Operators share of yield %	100.00	100.00	100.00	100.00
Value per cwt.	14.74	14.47	14.52	14.91
Total product return per acre	265.13	216.74	267.83	312.57
Crop insurance per acre	10.39	15.64	7.78	12.56
Other crop income per acre	1.32	-	-	-
Gross return per acre	276.84	232.38	275.61	325.13
Direct Expenses				
Seed	69.42	62.02	61.43	71.18
Fertilizer	61.82	76.11	70.16	49.39
Crop chemicals	28.34	32.98	34.16	30.17
Crop insurance	13.53	17.55	12.52	10.50
Fuel & oil	16.78	20.45	14.96	16.24
Repairs	22.42	28.66	17.88	18.53
Custom hire	1.61	0.89	2.78	1.08
Machinery leases	0.72	0.09	-	3.35
Operating interest	3.48	9.61	2.91	1.66
Total direct expenses per acre	218.12	248.37	216.79	202.09
Return over direct exp per acre	58.72	-15.99	58.82	123.03
Overhead Expenses				
Custom hire	0.63	4.22	0.00	-
Hired labor	4.61	6.88	4.45	3.11
Machinery leases	4.45	2.56	15.35	0.97
RE & pers. property taxes	6.59	6.81	6.72	7.37
Farm insurance	4.57	4.92	4.83	3.84
Utilities	3.37	4.26	2.90	2.30
Interest	11.16	17.29	5.64	18.38
Mach & bldg depreciation	32.10	30.28	31.06	29.43
Miscellaneous	2.78	2.88	2.97	3.21
Total overhead expenses per acre	70.27	80.08	73.92	68.60
Total dir & ovhd expenses per acre	288.38	328.45	290.71	270.69
Net return per acre	-11.54	-96.07	-15.10	54.44
Government payments	11.69	12.21	12.29	11.19
Net return with govt pmts	0.15	-83.86	-2.81	65.62
Labor & management charge	24.34	25.51	23.41	23.85
Net return over lbr & mgt	-24.19	-109.37	-26.22	41.77
Cost of Production				
Total direct expense per cwt.	12.12	16.58	11.75	9.64
Total dir & ovhd exp per cwt.	16.03	21.92	15.76	12.92
Less govt & other income	14.73	20.06	14.67	11.78
With labor & management	16.08	21.77	15.94	12.92
Net value per unit	14.74	14.47	14.52	14.91
Machinery cost per acre	80.14	90.61	82.89	70.92
Est. labor hours per acre	1.32	1.60	1.24	1.33

Crop Enterprise Analysis
North Dakota Farm Business Management Education
Region 2 - North Central North Dakota, 2015
(Farms Sorted By Net Return)

Canola on Cash Rent

	Avg. Of All Farms	Low 20%	40 - 60%	High 20%
Number of farms	52	10	11	11
Acres	294.90	242.97	343.55	420.22
Yield per acre (cwt.)	18.14	14.37	18.65	19.30
Operators share of yield %	100.00	100.00	100.00	100.00
Value per cwt.	15.64	14.57	14.88	17.35
Total product return per acre	283.55	209.39	277.47	334.98
Crop insurance per acre	12.94	12.71	1.76	15.66
Other crop income per acre	0.15	0.70	-	-
Gross return per acre	296.65	222.80	279.23	350.64
Direct Expenses				
Seed	62.64	66.87	61.86	56.11
Fertilizer	68.98	74.12	71.72	66.50
Crop chemicals	28.70	33.30	25.49	28.30
Crop insurance	14.71	17.25	14.22	14.73
Fuel & oil	16.08	16.46	14.19	15.91
Repairs	19.05	20.06	19.80	15.53
Custom hire	4.74	5.00	1.84	3.82
Land rent	48.33	53.79	43.40	47.59
Operating interest	4.90	7.76	3.82	3.93
Miscellaneous	0.78	0.02	1.20	0.17
Total direct expenses per acre	268.91	294.63	257.54	252.61
Return over direct exp per acre	27.73	-71.83	21.69	98.03
Overhead Expenses				
Custom hire	1.36	4.99	2.21	0.00
Hired labor	4.36	10.44	6.24	0.45
Machinery leases	3.90	1.92	6.15	2.30
Building leases	0.43	0.14	0.29	1.01
Farm insurance	4.04	4.71	3.13	3.51
Utilities	2.94	3.36	2.67	2.68
Dues & professional fees	0.65	0.54	0.87	0.41
Interest	2.71	3.81	2.73	1.61
Mach & bldg depreciation	34.07	31.04	31.44	34.13
Miscellaneous	2.32	2.58	1.58	1.21
Total overhead expenses per acre	56.80	63.54	57.32	47.32
Total dir & ovhd expenses per acre	325.71	358.16	314.85	299.94
Net return per acre	-29.07	-135.36	-35.62	50.70
Government payments	11.54	8.91	9.36	13.76
Net return with govt pmts	-17.52	-126.45	-26.26	64.47
Labor & management charge	27.11	23.64	22.29	29.25
Net return over lbr & mgt	-44.63	-150.09	-48.56	35.21
Cost of Production				
Total direct expense per cwt.	14.83	20.51	13.81	13.09
Total dir & ovhd exp per cwt.	17.96	24.93	16.88	15.54
Less govt & other income	16.60	23.38	16.29	14.01
With labor & management	18.10	25.02	17.48	15.53
Net value per unit	15.64	14.57	14.88	17.35
Machinery cost per acre	80.74	81.83	77.15	71.85
Est. labor hours per acre	1.30	1.49	1.16	1.26

Crop Enterprise Analysis
North Dakota Farm Business Management Education
Region 2 - North Central North Dakota, 2015
(Farms Sorted By Net Return)

Corn on Owned Land

	Avg. Of All Farms
Number of farms	22
Acres	131.52
Yield per acre (bu.)	112.52
Operators share of yield %	100.00
Value per bu.	3.07
Other product return per acre	4.48
Total product return per acre	350.36
Hedging gains/losses per acre	1.53
Crop insurance per acre	0.60
Other crop income per acre	0.06
Gross return per acre	352.55
Direct Expenses	
Seed	88.18
Fertilizer	90.59
Crop chemicals	18.52
Crop insurance	20.11
Fuel & oil	19.08
Repairs	36.13
Custom hire	3.32
Operating interest	4.84
Miscellaneous	0.16
Total direct expenses per acre	280.93
Return over direct exp per acre	71.61
Overhead Expenses	
Custom hire	3.15
Hired labor	10.05
Machinery leases	1.90
Building leases	0.42
RE & pers. property taxes	6.61
Farm insurance	6.12
Utilities	4.42
Dues & professional fees	0.74
Interest	20.12
Mach & bldg depreciation	60.59
Miscellaneous	5.00
Total overhead expenses per acre	119.11
Total dir & ovhd expenses per acre	400.05
Net return per acre	-47.50
Government payments	11.67
Net return with govt pmts	-35.83
Labor & management charge	34.60
Net return over lbr & mgt	-70.43
Cost of Production	
Total direct expense per bu.	2.50
Total dir & ovhd exp per bu.	3.56
Less govt & other income	3.39
With labor & management	3.70
Net value per unit	3.09
Machinery cost per acre	123.67
Est. labor hours per acre	1.96

Crop Enterprise Analysis
North Dakota Farm Business Management Education
Region 2 - North Central North Dakota, 2015
(Farms Sorted By Net Return)

Corn on Cash Rent

	Avg. Of All Farms
Number of farms	24
Acres	207.92
Yield per acre (bu.)	104.56
Operators share of yield %	100.00
Value per bu.	3.05
Other product return per acre	0.36
Total product return per acre	318.94
Crop insurance per acre	3.38
Other crop income per acre	0.78
Gross return per acre	323.10
Direct Expenses	
Seed	78.06
Fertilizer	92.99
Crop chemicals	26.54
Crop insurance	20.52
Drying expense	3.58
Fuel & oil	22.38
Repairs	29.11
Custom hire	1.12
Land rent	46.88
Machinery leases	0.32
Operating interest	7.59
Miscellaneous	0.77
Total direct expenses per acre	329.85
Return over direct exp per acre	-6.75
Overhead Expenses	
Custom hire	2.11
Hired labor	18.71
Machinery leases	1.69
Farm insurance	5.48
Utilities	3.50
Dues & professional fees	0.76
Interest	4.05
Mach & bldg depreciation	51.74
Miscellaneous	2.82
Total overhead expenses per acre	90.86
Total dir & ovhd expenses per acre	420.71
Net return per acre	-97.61
Government payments	9.40
Net return with govt pmts	-88.21
Labor & management charge	33.33
Net return over lbr & mgt	-121.54
Cost of Production	
Total direct expense per bu.	3.15
Total dir & ovhd exp per bu.	4.02
Less govt & other income	3.89
With labor & management	4.21
Net value per unit	3.05
Machinery cost per acre	108.66
Est. labor hours per acre	2.07

Crop Enterprise Analysis
North Dakota Farm Business Management Education
Region 2 - North Central North Dakota, 2015
(Farms Sorted By Net Return)

Corn Silage on Owned Land

	Avg. Of All Farms
Number of farms	11
Acres	66.39
Yield per acre (ton)	13.36
Operators share of yield %	100.00
Value per ton	31.56
Other product return per acre	12.42
Total product return per acre	433.96
Crop insurance per acre	14.25
Gross return per acre	448.21
Direct Expenses	
Seed	66.45
Fertilizer	53.96
Crop chemicals	14.55
Crop insurance	15.99
Fuel & oil	22.75
Repairs	44.36
Custom hire	17.69
Operating interest	5.29
Miscellaneous	0.14
Total direct expenses per acre	241.19
Return over direct exp per acre	207.02
Overhead Expenses	
Custom hire	4.57
Hired labor	4.32
Machinery leases	2.02
Building leases	0.40
RE & pers. property taxes	5.11
Farm insurance	4.08
Utilities	2.56
Dues & professional fees	1.63
Interest	14.89
Mach & bldg depreciation	46.73
Miscellaneous	1.72
Total overhead expenses per acre	88.02
Total dir & ovhd expenses per acre	329.21
Net return per acre	118.99
Government payments	10.79
Net return with govt pmts	129.78
Labor & management charge	34.77
Net return over lbr & mgt	95.01
Cost of Production	
Total direct expense per ton	18.06
Total dir & ovhd exp per ton	24.65
Less govt & other income	21.84
With labor & management	24.44
Net value per unit	31.56
Machinery cost per acre	138.28
Est. labor hours per acre	2.93

Crop Enterprise Analysis
North Dakota Farm Business Management Education
Region 2 - North Central North Dakota, 2015
(Farms Sorted By Net Return)

CRP on Owned Land

	Avg. Of All Farms
Number of farms	21
Acres	140.66
Yield per acre ($)	36.12
Operators share of yield %	100.00
Value per $	1.00
Total product return per acre	36.12
Gross return per acre	36.12
Direct Expenses	
Crop chemicals	1.30
Fuel & oil	0.75
Repairs	0.97
Operating interest	0.10
Total direct expenses per acre	3.45
Return over direct exp per acre	32.67
Overhead Expenses	
Hired labor	0.80
RE & pers. property taxes	6.14
Farm insurance	0.21
Interest	5.70
Mach & bldg depreciation	2.35
Miscellaneous	0.43
Total overhead expenses per acre	15.63
Total dir & ovhd expenses per acre	19.08
Net return per acre	17.04

Crop Enterprise Analysis
North Dakota Farm Business Management Education
Region 2 - North Central North Dakota, 2015
(Farms Sorted By Net Return)

Fallow on Owned Land

	Avg. Of All Farms	***40 - 60%***	***High 20%***
Number of farms	24	5	5
Acres	55.53	33.78	90.54
Yield per acre	0.00	0.00	0.00
Operators share of yield %	100.00	100.00	100.00
Value	-	-	-
Total product return per acre	-	-	-
Gross return per acre	-	-	-
Direct Expenses			
Seed	0.17	1.32	-
Crop chemicals	1.19	2.10	0.91
Crop insurance	0.29	-	-
Fuel & oil	6.69	4.96	2.11
Repairs	8.80	3.52	2.12
Operating interest	1.49	1.12	0.37
Miscellaneous	0.15	-	-
Total direct expenses per acre	18.77	13.02	5.50
Return over direct exp per acre	-18.77	-13.02	-5.50
Overhead Expenses			
Custom hire	0.29	1.46	0.03
Hired labor	1.39	2.42	0.93
Machinery leases	0.57	0.03	0.93
RE & pers. property taxes	5.97	7.03	6.12
Farm insurance	1.98	2.36	0.54
Utilities	1.28	1.43	0.41
Dues & professional fees	0.77	0.23	-
Interest	11.02	22.11	6.31
Mach & bldg depreciation	14.60	16.95	4.12
Miscellaneous	1.47	0.82	0.26
Total overhead expenses per acre	39.35	54.85	19.65
Total dir & ovhd expenses per acre	58.12	67.87	25.15
Net return per acre	-58.12	-67.87	-25.15

Crop Enterprise Analysis
North Dakota Farm Business Management Education
Region 2 - North Central North Dakota, 2015
(Farms Sorted By Net Return)

Flax on Owned Land

	Avg. Of All Farms
Number of farms	9
Acres	127.22
Yield per acre (bu.)	26.06
Operators share of yield %	100.00
Value per bu.	8.84
Other product return per acre	0.30
Total product return per acre	230.70
Gross return per acre	230.70
Direct Expenses	
Seed	17.64
Fertilizer	46.46
Crop chemicals	22.47
Crop insurance	9.02
Fuel & oil	12.49
Repairs	20.97
Custom hire	4.90
Operating interest	3.15
Miscellaneous	0.16
Total direct expenses per acre	137.27
Return over direct exp per acre	93.43
Overhead Expenses	
Hired labor	4.07
Machinery leases	0.35
RE & pers. property taxes	6.04
Farm insurance	3.12
Utilities	2.44
Dues & professional fees	0.59
Interest	18.53
Mach & bldg depreciation	24.67
Miscellaneous	2.05
Total overhead expenses per acre	61.86
Total dir & ovhd expenses per acre	199.13
Net return per acre	31.57
Government payments	3.05
Net return with govt pmts	34.62
Labor & management charge	19.83
Net return over lbr & mgt	14.80
Cost of Production	
Total direct expense per bu.	5.27
Total dir & ovhd exp per bu.	7.64
Less govt & other income	7.51
With labor & management	8.28
Net value per unit	8.84
Machinery cost per acre	62.85
Est. labor hours per acre	1.22

Crop Enterprise Analysis
North Dakota Farm Business Management Education
Region 2 - North Central North Dakota, 2015
(Farms Sorted By Net Return)

Flax on Cash Rent

	Avg. Of All Farms
Number of farms	14
Acres	260.11
Yield per acre (bu.)	23.29
Operators share of yield %	100.00
Value per bu.	9.55
Total product return per acre	222.37
Crop insurance per acre	9.27
Other crop income per acre	0.05
Gross return per acre	231.70
Direct Expenses	
Seed	18.96
Fertilizer	41.67
Crop chemicals	21.00
Crop insurance	11.80
Fuel & oil	11.94
Repairs	20.67
Custom hire	5.39
Land rent	47.00
Machinery leases	0.56
Operating interest	5.36
Miscellaneous	0.57
Total direct expenses per acre	184.93
Return over direct exp per acre	46.77
Overhead Expenses	
Custom hire	0.19
Hired labor	5.93
Machinery leases	1.27
Building leases	0.17
Farm insurance	4.78
Utilities	2.77
Dues & professional fees	0.77
Interest	3.38
Mach & bldg depreciation	26.08
Miscellaneous	1.74
Total overhead expenses per acre	47.08
Total dir & ovhd expenses per acre	232.01
Net return per acre	-0.31
Government payments	6.00
Net return with govt pmts	5.69
Labor & management charge	19.16
Net return over lbr & mgt	-13.47
Cost of Production	
Total direct expense per bu.	7.94
Total dir & ovhd exp per bu.	9.96
Less govt & other income	9.30
With labor & management	10.13
Net value per unit	9.55
Machinery cost per acre	67.71
Est. labor hours per acre	1.06

Crop Enterprise Analysis
North Dakota Farm Business Management Education
Region 2 - North Central North Dakota, 2015
(Farms Sorted By Net Return)

Hay, Alfalfa on Owned Land

	Avg. Of All Farms
Number of farms	10
Acres	126.51
Yield per acre (ton)	1.69
Operators share of yield %	100.00
Value per ton	82.98
Total product return per acre	139.96
Gross return per acre	139.96
Direct Expenses	
Fertilizer	10.82
Crop chemicals	0.24
Fuel & oil	6.76
Repairs	12.13
Custom hire	3.52
Operating interest	1.17
Total direct expenses per acre	34.65
Return over direct exp per acre	105.32
Overhead Expenses	
Custom hire	0.59
Hired labor	1.99
Machinery leases	0.65
Building leases	0.09
RE & pers. property taxes	5.05
Farm insurance	2.53
Utilities	2.24
Dues & professional fees	1.10
Interest	19.92
Mach & bldg depreciation	14.39
Miscellaneous	0.24
Total overhead expenses per acre	48.78
Total dir & ovhd expenses per acre	83.43
Net return per acre	56.53
Government payments	14.76
Net return with govt pmts	71.29
Labor & management charge	11.10
Net return over lbr & mgt	60.19
Cost of Production	
Total direct expense per ton	20.54
Total dir & ovhd exp per ton	49.46
Less govt & other income	40.71
With labor & management	47.30
Net value per unit	82.98
Machinery cost per acre	39.14
Est. labor hours per acre	0.77

Crop Enterprise Analysis
North Dakota Farm Business Management Education
Region 2 - North Central North Dakota, 2015
(Farms Sorted By Net Return)

Hay, Grass on Owned Land

	Avg. Of All Farms
Number of farms	16
Acres	172.60
Yield per acre (ton)	1.31
Operators share of yield %	100.00
Value per ton	37.68
Other product return per acre	0.27
Total product return per acre	49.48
Gross return per acre	49.48
Direct Expenses	
Fuel & oil	6.51
Repairs	15.39
Operating interest	1.13
Miscellaneous	0.48
Total direct expenses per acre	23.52
Return over direct exp per acre	25.96
Overhead Expenses	
Custom hire	0.67
Hired labor	2.81
RE & pers. property taxes	2.38
Farm insurance	0.97
Utilities	0.96
Dues & professional fees	0.53
Interest	6.02
Mach & bldg depreciation	12.84
Miscellaneous	0.56
Total overhead expenses per acre	27.74
Total dir & ovhd expenses per acre	51.26
Net return per acre	-1.78
Government payments	-
Net return with govt pmts	-1.78
Labor & management charge	12.68
Net return over lbr & mgt	-14.46
Cost of Production	
Total direct expense per ton	18.01
Total dir & ovhd exp per ton	39.25
Less govt & other income	39.04
With labor & management	48.76
Net value per unit	37.68
Machinery cost per acre	35.56
Est. labor hours per acre	1.00

Crop Enterprise Analysis
North Dakota Farm Business Management Education
Region 2 - North Central North Dakota, 2015
(Farms Sorted By Net Return)

Hay, Grass on Cash Rent

	Avg. Of All Farms
Number of farms	20
Acres	265.56
Yield per acre (ton)	1.12
Operators share of yield %	100.00
Value per ton	38.47
Total product return per acre	43.05
Gross return per acre	43.05
Direct Expenses	
Fuel & oil	6.80
Repairs	12.96
Land rent	13.00
Operating interest	1.36
Miscellaneous	1.45
Total direct expenses per acre	35.57
Return over direct exp per acre	7.47
Overhead Expenses	
Custom hire	1.49
Hired labor	3.89
Farm insurance	1.17
Utilities	1.17
Dues & professional fees	0.35
Interest	0.96
Mach & bldg depreciation	13.86
Miscellaneous	0.73
Total overhead expenses per acre	23.62
Total dir & ovhd expenses per acre	59.19
Net return per acre	-16.15
Government payments	0.02
Net return with govt pmts	-16.13
Labor & management charge	10.46
Net return over lbr & mgt	-26.59
Cost of Production	
Total direct expense per ton	31.79
Total dir & ovhd exp per ton	52.90
Less govt & other income	52.89
With labor & management	62.24
Net value per unit	38.47
Machinery cost per acre	35.97
Est. labor hours per acre	0.85

Crop Enterprise Analysis
North Dakota Farm Business Management Education
Region 2 - North Central North Dakota, 2015
(Farms Sorted By Net Return)

Hay, Mixed Alfalfa/Grass on Owned Land

	Avg. Of All Farms
Number of farms	7
Acres	83.26
Yield per acre (ton)	1.91
Operators share of yield %	100.00
Value per ton	52.39
Total product return per acre	99.99
Gross return per acre	99.99
Direct Expenses	
Fertilizer	10.62
Fuel & oil	6.15
Repairs	13.59
Operating interest	2.44
Total direct expenses per acre	32.84
Return over direct exp per acre	67.15
Overhead Expenses	
Custom hire	0.79
Hired labor	2.16
Machinery leases	0.55
RE & pers. property taxes	5.14
Farm insurance	3.13
Utilities	3.29
Dues & professional fees	0.78
Interest	16.85
Mach & bldg depreciation	14.87
Total overhead expenses per acre	47.64
Total dir & ovhd expenses per acre	80.48
Net return per acre	19.50
Government payments	-
Net return with govt pmts	19.50
Labor & management charge	14.86
Net return over lbr & mgt	4.64
Cost of Production	
Total direct expense per ton	17.21
Total dir & ovhd exp per ton	42.18
Less govt & other income	42.18
With labor & management	49.96
Net value per unit	52.39
Machinery cost per acre	37.64
Est. labor hours per acre	1.15

Crop Enterprise Analysis
North Dakota Farm Business Management Education
Region 2 - North Central North Dakota, 2015
(Farms Sorted By Net Return)

Hay, Mixed Alfalfa/Grass on Cash Rent

	Avg. Of All Farms
Number of farms	11
Acres	103.30
Yield per acre (ton)	1.45
Operators share of yield %	100.00
Value per ton	44.66
Total product return per acre	64.98
Gross return per acre	64.98
Direct Expenses	
Fuel & oil	6.82
Repairs	11.89
Custom hire	0.70
Land rent	27.26
Operating interest	3.04
Total direct expenses per acre	49.71
Return over direct exp per acre	15.27
Overhead Expenses	
Custom hire	0.70
Hired labor	1.59
Machinery leases	0.21
Farm insurance	2.44
Utilities	1.29
Dues & professional fees	0.92
Interest	4.46
Mach & bldg depreciation	10.27
Total overhead expenses per acre	21.92
Total dir & ovhd expenses per acre	71.63
Net return per acre	-6.65
Government payments	0.31
Net return with govt pmts	-6.34
Labor & management charge	13.98
Net return over lbr & mgt	-20.33
Cost of Production	
Total direct expense per ton	34.17
Total dir & ovhd exp per ton	49.23
Less govt & other income	49.02
With labor & management	58.63
Net value per unit	44.66
Machinery cost per acre	34.69
Est. labor hours per acre	1.02

Crop Enterprise Analysis
North Dakota Farm Business Management Education
Region 2 - North Central North Dakota, 2015
(Farms Sorted By Net Return)

Pasture on Owned Land

	Avg. Of All Farms	***Low 20%***	***40 - 60%***	***High 20%***
Number of farms	26	5	5	6
Acres	530.31	431.00	588.29	369.44
Yield per acre (aum)	0.94	0.81	0.58	1.52
Operators share of yield %	100.00	100.00	100.00	100.00
Value per aum	17.32	16.49	17.79	18.00
Other product return per acre	0.07	-	0.35	-
Total product return per acre	16.35	13.38	10.61	27.37
Crop insurance per acre	0.02	-	-	-
Other crop income per acre	0.48	-	-	2.98
Gross return per acre	16.85	13.38	10.61	30.36
Direct Expenses				
Fuel & oil	0.50	1.21	0.40	0.39
Repairs	0.91	1.59	0.74	0.83
Total direct expenses per acre	2.06	3.11	1.30	1.31
Return over direct exp per acre	14.79	10.27	9.31	29.05
Overhead Expenses				
RE & pers. property taxes	2.81	4.01	2.84	2.44
Interest	6.15	18.45	2.39	4.49
Mach & bldg depreciation	1.09	3.02	1.08	0.71
Miscellaneous	0.63	1.39	0.55	0.46
Total overhead expenses per acre	10.68	26.87	6.85	8.09
Total dir & ovhd expenses per acre	12.74	29.98	8.15	9.40
Net return per acre	4.11	-16.60	2.46	20.95

Crop Enterprise Analysis
North Dakota Farm Business Management Education
Region 2 - North Central North Dakota, 2015
(Farms Sorted By Net Return)

Pasture on Cash Rent

	Avg. Of All Farms	*Low 20%*	*40 - 60%*	*High 20%*
Number of farms	35	7	7	7
Acres	693.42	441.35	1,618.64	381.42
Yield per acre (aum)	0.94	1.15	0.91	1.25
Operators share of yield %	100.00	100.00	100.00	100.00
Value per aum	16.98	15.27	17.63	18.00
Other product return per acre	0.04	0.29	-	-
Total product return per acre	16.07	17.80	16.09	22.51
Crop insurance per acre	0.01	-	0.03	-
Other crop income per acre	0.12	-	0.26	-
Gross return per acre	16.20	17.80	16.37	22.51
Direct Expenses				
Crop chemicals	0.32	0.97	0.23	0.37
Fuel & oil	0.46	0.86	0.36	0.55
Repairs	0.77	1.09	0.72	1.00
Land rent	14.60	26.16	15.12	10.42
Total direct expenses per acre	16.60	29.29	16.65	12.55
Return over direct exp per acre	-0.40	-11.49	-0.28	9.96
Overhead Expenses				
Mach & bldg depreciation	0.84	1.87	0.51	0.79
Miscellaneous	0.72	1.17	0.53	1.17
Total overhead expenses per acre	1.56	3.05	1.04	1.96
Total dir & ovhd expenses per acre	18.16	32.34	17.69	14.51
Net return per acre	-1.96	-14.54	-1.32	8.00

Crop Enterprise Analysis
North Dakota Farm Business Management Education
Region 2 - North Central North Dakota, 2015
(Farms Sorted By Net Return)

Peas, Field on Owned Land

	Avg. Of All Farms
Number of farms	8
Acres	147.35
Yield per acre (bu.)	37.68
Operators share of yield %	100.00
Value per bu.	6.74
Total product return per acre	253.92
Crop insurance per acre	52.78
Gross return per acre	306.71
Direct Expenses	
Seed	44.57
Fertilizer	19.22
Crop chemicals	46.93
Crop insurance	11.19
Fuel & oil	16.66
Repairs	24.87
Custom hire	3.95
Machinery leases	1.14
Operating interest	7.04
Miscellaneous	0.96
Total direct expenses per acre	176.53
Return over direct exp per acre	130.18
Overhead Expenses	
Custom hire	4.62
Hired labor	8.56
Machinery leases	0.36
RE & pers. property taxes	6.20
Farm insurance	3.43
Utilities	3.58
Dues & professional fees	1.15
Interest	25.37
Mach & bldg depreciation	29.77
Miscellaneous	2.47
Total overhead expenses per acre	85.52
Total dir & ovhd expenses per acre	262.05
Net return per acre	44.65
Government payments	6.76
Net return with govt pmts	51.42
Labor & management charge	21.92
Net return over lbr & mgt	29.49
Cost of Production	
Total direct expense per bu.	4.68
Total dir & ovhd exp per bu.	6.95
Less govt & other income	5.37
With labor & management	5.96
Net value per unit	6.74
Machinery cost per acre	84.90
Est. labor hours per acre	1.30

Crop Enterprise Analysis
North Dakota Farm Business Management Education
Region 2 - North Central North Dakota, 2015
(Farms Sorted By Net Return)

Peas, Field on Cash Rent

	Avg. Of All Farms
Number of farms	12
Acres	201.35
Yield per acre (bu.)	45.79
Operators share of yield %	100.00
Value per bu.	7.24
Total product return per acre	331.57
Crop insurance per acre	21.47
Gross return per acre	353.04
Direct Expenses	
Seed	41.99
Fertilizer	10.72
Crop chemicals	36.45
Crop insurance	12.42
Fuel & oil	17.58
Repairs	23.70
Custom hire	5.92
Land rent	44.56
Operating interest	6.19
Miscellaneous	1.57
Total direct expenses per acre	201.11
Return over direct exp per acre	151.93
Overhead Expenses	
Custom hire	0.97
Hired labor	9.97
Machinery leases	0.28
Building leases	0.31
Farm insurance	4.65
Utilities	2.52
Dues & professional fees	1.62
Interest	2.35
Mach & bldg depreciation	40.53
Miscellaneous	2.68
Total overhead expenses per acre	65.87
Total dir & ovhd expenses per acre	266.98
Net return per acre	86.06
Government payments	11.52
Net return with govt pmts	97.59
Labor & management charge	23.28
Net return over lbr & mgt	74.31
Cost of Production	
Total direct expense per bu.	4.39
Total dir & ovhd exp per bu.	5.83
Less govt & other income	5.11
With labor & management	5.62
Net value per unit	7.24
Machinery cost per acre	89.14
Est. labor hours per acre	1.33

Crop Enterprise Analysis
North Dakota Farm Business Management Education
Region 2 - North Central North Dakota, 2015
(Farms Sorted By Net Return)

Prevented planting on Cash Rent

	Avg. Of All Farms
Number of farms	18
Acres	108.38
Yield per acre	-
Operators share of yield %	-
Value	-
Total product return per acre	-
Crop insurance per acre	109.29
Gross return per acre	109.29
Direct Expenses	
Fertilizer	0.27
Crop chemicals	2.39
Crop insurance	10.94
Fuel & oil	3.93
Repairs	5.28
Custom hire	0.55
Land rent	51.80
Machinery leases	0.90
Operating interest	2.37
Miscellaneous	0.68
Total direct expenses per acre	79.10
Return over direct exp per acre	30.20
Overhead Expenses	
Custom hire	0.47
Hired labor	2.47
Machinery leases	0.34
Farm insurance	3.11
Utilities	1.34
Dues & professional fees	0.74
Interest	2.05
Mach & bldg depreciation	12.46
Miscellaneous	1.51
Total overhead expenses per acre	24.50
Total dir & ovhd expenses per acre	103.60
Net return per acre	5.70
Government payments	10.01
Net return with govt pmts	15.70
Labor & management charge	7.51
Net return over lbr & mgt	8.20

Crop Enterprise Analysis
North Dakota Farm Business Management Education
Region 2 - North Central North Dakota, 2015
(Farms Sorted By Net Return)

Soybeans on Owned Land

	Avg. Of All Farms	Low 20%	40 - 60%	High 20%
Number of farms	49	9	10	10
Acres	217.30	133.13	242.43	278.57
Yield per acre (bu.)	27.98	23.60	27.80	31.93
Operators share of yield %	100.00	100.00	100.00	100.00
Value per bu.	8.27	8.14	8.36	8.27
Total product return per acre	231.41	192.18	232.42	264.18
Hedging gains/losses per acre	0.34	-	-	-
Crop insurance per acre	16.88	3.95	10.53	32.85
Other crop income per acre	0.28	-	-	-
Gross return per acre	248.92	196.13	242.94	297.02
Direct Expenses				
Seed	69.79	82.79	71.25	66.35
Fertilizer	16.99	20.95	17.48	12.42
Crop chemicals	18.91	17.41	19.75	18.57
Crop insurance	15.29	13.22	17.11	12.57
Fuel & oil	14.17	12.22	16.12	11.24
Repairs	20.27	19.01	19.73	16.10
Custom hire	3.62	13.79	3.95	0.75
Machinery leases	0.12	1.06	-	-
Operating interest	3.98	5.52	5.22	3.06
Miscellaneous	0.35	0.61	0.63	0.53
Total direct expenses per acre	163.49	186.58	171.25	141.58
Return over direct exp per acre	85.43	9.55	71.69	155.44
Overhead Expenses				
Custom hire	1.28	2.33	0.26	0.38
Hired labor	6.53	7.42	5.38	9.33
Machinery leases	1.40	0.97	0.90	0.78
RE & pers. property taxes	6.33	6.40	5.81	6.13
Farm insurance	4.34	3.54	4.24	4.99
Utilities	3.20	2.86	2.94	3.69
Dues & professional fees	0.63	1.94	0.13	0.51
Interest	15.67	30.28	12.97	9.38
Mach & bldg depreciation	30.23	28.97	34.31	27.88
Miscellaneous	3.24	2.15	2.94	2.68
Total overhead expenses per acre	72.85	86.86	69.88	65.75
Total dir & ovhd expenses per acre	236.34	273.44	241.13	207.32
Net return per acre	12.58	-77.31	1.81	89.70
Government payments	11.04	5.50	14.05	6.11
Net return with govt pmts	23.61	-71.81	15.86	95.81
Labor & management charge	23.28	19.67	23.90	22.21
Net return over lbr & mgt	0.33	-91.48	-8.04	73.60
Cost of Production				
Total direct expense per bu.	5.84	7.91	6.16	4.43
Total dir & ovhd exp per bu.	8.45	11.59	8.67	6.49
Less govt & other income	7.43	11.19	7.79	5.27
With labor & management	8.26	12.02	8.65	5.97
Net value per unit	8.28	8.14	8.36	8.27
Machinery cost per acre	72.68	82.21	76.68	58.92
Est. labor hours per acre	1.38	1.33	1.53	1.29

Crop Enterprise Analysis
North Dakota Farm Business Management Education
Region 2 - North Central North Dakota, 2015
(Farms Sorted By Net Return)

Soybeans on Cash Rent

	Avg. Of All Farms	Low 20%	40 - 60%	High 20%
Number of farms	84	16	17	17
Acres	529.58	737.64	494.39	404.24
Yield per acre (bu.)	28.06	25.34	27.77	33.97
Operators share of yield %	100.00	100.00	100.00	100.00
Value per bu.	8.24	8.06	8.26	8.38
Total product return per acre	231.28	204.26	229.39	284.72
Crop insurance per acre	16.89	9.34	7.38	33.14
Other crop income per acre	0.33	-	0.39	-
Gross return per acre	248.49	213.60	237.16	317.87
Direct Expenses				
Seed	72.65	79.75	72.82	73.02
Fertilizer	19.62	30.51	17.31	14.14
Crop chemicals	21.77	19.39	24.86	19.62
Crop insurance	14.16	13.71	13.85	13.13
Fuel & oil	13.19	14.94	12.58	11.18
Repairs	19.76	18.75	19.76	20.91
Custom hire	2.52	1.76	2.58	3.37
Land rent	54.80	60.61	50.39	52.21
Machinery leases	0.27	0.19	0.08	0.91
Operating interest	5.21	6.28	4.25	4.78
Miscellaneous	0.45	0.53	0.17	1.07
Total direct expenses per acre	224.41	246.42	218.65	214.36
Return over direct exp per acre	24.09	-32.83	18.51	103.51
Overhead Expenses				
Custom hire	1.39	0.84	2.44	0.68
Hired labor	6.49	8.40	7.13	2.49
Machinery leases	6.37	11.27	0.96	3.01
Building leases	0.16	0.06	0.17	0.66
Farm insurance	4.02	4.36	3.90	4.03
Utilities	3.06	3.02	2.02	2.78
Dues & professional fees	1.03	1.10	0.38	1.27
Interest	3.84	5.43	2.19	2.74
Mach & bldg depreciation	30.97	35.53	28.08	27.66
Miscellaneous	2.67	3.74	2.29	1.70
Total overhead expenses per acre	60.02	73.76	49.57	47.01
Total dir & ovhd expenses per acre	284.42	320.18	268.22	261.37
Net return per acre	-35.93	-106.59	-31.06	56.50
Government payments	9.59	8.45	8.65	10.08
Net return with govt pmts	-26.34	-98.14	-22.41	66.57
Labor & management charge	22.66	21.90	21.98	23.51
Net return over lbr & mgt	-48.99	-120.04	-44.39	43.07
Cost of Production				
Total direct expense per bu.	8.00	9.73	7.87	6.31
Total dir & ovhd exp per bu.	10.14	12.64	9.66	7.70
Less govt & other income	9.18	11.93	9.07	6.42
With labor & management	9.99	12.80	9.86	7.11
Net value per unit	8.24	8.06	8.26	8.38
Machinery cost per acre	76.60	86.17	66.96	68.83
Est. labor hours per acre	1.25	1.21	1.26	1.01

Crop Enterprise Analysis
North Dakota Farm Business Management Education
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Soybeans on Share Rent

	Avg. Of All Farms
Number of farms	19
Acres	283.32
Yield per acre (bu.)	31.95
Operators share of yield %	63.50
Value per bu.	8.26
Total product return per acre	167.59
Crop insurance per acre	1.81
Other crop income per acre	1.95
Gross return per acre	171.36
Direct Expenses	
Seed	54.59
Fertilizer	11.00
Crop chemicals	16.07
Crop insurance	8.25
Fuel & oil	10.20
Repairs	15.01
Custom hire	2.06
Operating interest	2.22
Miscellaneous	6.17
Total direct expenses per acre	125.58
Return over direct exp per acre	45.78
Overhead Expenses	
Custom hire	2.05
Hired labor	4.51
Machinery leases	1.21
Farm insurance	3.90
Utilities	3.06
Dues & professional fees	0.68
Interest	2.42
Mach & bldg depreciation	37.78
Miscellaneous	2.64
Total overhead expenses per acre	58.24
Total dir & ovhd expenses per acre	183.82
Net return per acre	-12.46
Government payments	5.72
Net return with govt pmts	-6.74
Labor & management charge	21.57
Net return over lbr & mgt	-28.31
Cost of Production	
Total direct expense per bu.	6.19
Total dir & ovhd exp per bu.	9.06
Less govt & other income	8.59
With labor & management	9.66
Net value per unit	8.26
Machinery cost per acre	68.69
Est. labor hours per acre	1.06

Crop Enterprise Analysis
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Sunflowers on Cash Rent

	Avg. Of All Farms
Number of farms	12
Acres	346.33
Yield per acre (cwt.)	16.87
Operators share of yield %	100.00
Value per cwt.	19.04
Total product return per acre	321.15
Crop insurance per acre	5.23
Gross return per acre	326.37
Direct Expenses	
Seed	37.89
Fertilizer	55.18
Crop chemicals	38.14
Crop insurance	15.45
Fuel & oil	14.95
Repairs	25.62
Custom hire	4.60
Land rent	59.26
Operating interest	5.43
Miscellaneous	0.75
Total direct expenses per acre	257.26
Return over direct exp per acre	69.12
Overhead Expenses	
Custom hire	1.43
Hired labor	8.98
Machinery leases	4.16
Building leases	0.24
Farm insurance	3.92
Utilities	2.27
Dues & professional fees	1.16
Interest	1.74
Mach & bldg depreciation	35.57
Miscellaneous	2.52
Total overhead expenses per acre	61.98
Total dir & ovhd expenses per acre	319.24
Net return per acre	7.14
Government payments	7.64
Net return with govt pmts	14.78
Labor & management charge	23.91
Net return over lbr & mgt	-9.13
Cost of Production	
Total direct expense per cwt.	15.25
Total dir & ovhd exp per cwt.	18.93
Less govt & other income	18.16
With labor & management	19.58
Net value per unit	19.04
Machinery cost per acre	86.12
Est. labor hours per acre	1.35

Crop Enterprise Analysis
North Dakota Farm Business Management Education
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(Farms Sorted By Net Return)

Wheat, Durum on Cash Rent

	Avg. Of All Farms
Number of farms	7
Acres	254.30
Yield per acre (bu.)	53.12
Operators share of yield %	100.00
Value per bu.	6.33
Total product return per acre	336.07
Crop insurance per acre	1.15
Gross return per acre	337.22
Direct Expenses	
Seed	30.16
Fertilizer	63.64
Crop chemicals	57.78
Crop insurance	19.91
Fuel & oil	13.13
Repairs	22.28
Custom hire	4.23
Land rent	43.17
Machinery leases	0.37
Operating interest	6.37
Miscellaneous	0.03
Total direct expenses per acre	261.08
Return over direct exp per acre	76.15
Overhead Expenses	
Custom hire	0.62
Hired labor	3.42
Machinery leases	3.42
Farm insurance	5.07
Utilities	3.08
Dues & professional fees	0.79
Interest	8.73
Mach & bldg depreciation	34.59
Miscellaneous	1.42
Total overhead expenses per acre	61.16
Total dir & ovhd expenses per acre	322.24
Net return per acre	14.98
Government payments	9.26
Net return with govt pmts	24.24
Labor & management charge	21.85
Net return over lbr & mgt	2.39
Cost of Production	
Total direct expense per bu.	4.92
Total dir & ovhd exp per bu.	6.07
Less govt & other income	5.87
With labor & management	6.28
Net value per unit	6.33
Machinery cost per acre	85.48
Est. labor hours per acre	0.92

Crop Enterprise Analysis
North Dakota Farm Business Management Education
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(Farms Sorted By Net Return)

Wheat, Spring on Owned Land

	Avg. Of All Farms	Low 20%	40 - 60%	High 20%
Number of farms	68	13	13	14
Acres	291.08	244.19	302.11	287.56
Yield per acre (bu.)	54.30	46.10	53.61	65.80
Operators share of yield %	100.00	100.00	100.00	100.00
Value per bu.	4.63	4.38	4.65	4.90
Other product return per acre	0.02	-	-	-
Total product return per acre	251.48	201.91	249.09	322.09
Hedging gains/losses per acre	1.09	-	-	-
Crop insurance per acre	10.80	7.24	7.21	9.26
Other crop income per acre	0.59	-	2.98	-
Gross return per acre	263.96	209.16	259.28	331.34
Direct Expenses				
Seed	18.53	22.32	16.61	20.56
Fertilizer	62.14	68.28	64.12	59.63
Crop chemicals	33.49	37.32	39.35	31.57
Crop insurance	14.89	17.95	16.66	13.26
Fuel & oil	13.61	14.93	13.80	15.42
Repairs	20.21	21.92	20.58	18.26
Custom hire	2.72	4.28	5.19	0.87
Operating interest	3.80	5.43	3.74	4.25
Miscellaneous	0.88	4.06	-	-
Total direct expenses per acre	170.28	196.50	180.05	163.82
Return over direct exp per acre	93.68	12.65	79.23	167.53
Overhead Expenses				
Custom hire	0.88	0.70	1.01	1.38
Hired labor	5.41	6.73	5.29	3.76
Machinery leases	5.00	5.24	0.61	2.30
RE & pers. property taxes	6.33	7.25	6.39	6.66
Farm insurance	4.45	4.53	3.98	4.09
Utilities	2.90	2.49	3.14	3.29
Dues & professional fees	0.99	0.84	0.90	0.55
Interest	17.85	30.62	14.87	12.19
Mach & bldg depreciation	32.63	30.21	35.10	31.64
Miscellaneous	2.50	2.35	3.54	2.15
Total overhead expenses per acre	78.95	90.97	74.85	68.00
Total dir & ovhd expenses per acre	249.22	287.47	254.90	231.82
Net return per acre	14.74	-78.31	4.38	99.52
Government payments	11.04	9.31	12.29	13.50
Net return with govt pmts	25.77	-69.01	16.67	113.02
Labor & management charge	22.11	20.43	24.39	22.22
Net return over lbr & mgt	3.67	-89.44	-7.72	90.80
Cost of Production				
Total direct expense per bu.	3.14	4.26	3.36	2.49
Total dir & ovhd exp per bu.	4.59	6.24	4.75	3.52
Less govt & other income	4.16	5.88	4.34	3.18
With labor & management	4.56	6.32	4.79	3.52
Net value per unit	4.65	4.38	4.65	4.90
Machinery cost per acre	76.00	77.00	76.92	70.84
Est. labor hours per acre	1.26	1.21	1.39	1.16

Crop Enterprise Analysis
North Dakota Farm Business Management Education
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(Farms Sorted By Net Return)

Wheat, Spring on Cash Rent

	Avg. Of All Farms	Low 20%	40 - 60%	High 20%
Number of farms	94	18	19	19
Acres	467.06	597.91	358.07	448.78
Yield per acre (bu.)	54.49	50.69	54.47	57.26
Operators share of yield %	100.00	100.00	100.00	100.00
Value per bu.	4.63	4.36	4.56	4.88
Other product return per acre	0.03	0.07	-	0.07
Total product return per acre	252.04	220.92	248.46	279.31
Crop insurance per acre	5.51	4.14	1.91	14.97
Other crop income per acre	0.08	-	-	-
Gross return per acre	257.63	225.05	250.37	294.28
Direct Expenses				
Seed	19.11	22.25	18.84	17.97
Fertilizer	67.21	73.00	66.25	59.30
Crop chemicals	35.32	40.59	33.99	27.06
Crop insurance	16.54	21.96	13.31	13.54
Fuel & oil	12.82	12.29	11.48	12.87
Repairs	18.64	22.09	18.94	12.30
Custom hire	3.37	5.32	6.13	1.01
Land rent	50.56	50.09	53.45	50.05
Machinery leases	0.24	0.16	1.16	0.09
Operating interest	4.94	8.37	4.42	3.07
Miscellaneous	0.68	1.12	0.08	0.54
Total direct expenses per acre	229.44	257.23	228.05	197.80
Return over direct exp per acre	28.19	-32.17	22.32	96.49
Overhead Expenses				
Custom hire	1.34	0.67	0.79	1.54
Hired labor	5.79	7.59	4.67	4.52
Machinery leases	5.02	6.03	2.67	6.86
Farm insurance	3.99	4.45	4.07	3.27
Utilities	2.75	2.92	2.59	2.67
Dues & professional fees	0.97	1.02	0.59	0.31
Interest	3.48	5.27	2.49	2.34
Mach & bldg depreciation	30.52	36.09	27.42	24.20
Miscellaneous	2.83	2.62	2.15	3.21
Total overhead expenses per acre	56.70	66.66	47.44	48.91
Total dir & ovhd expenses per acre	286.14	323.89	275.49	246.70
Net return per acre	-28.51	-98.83	-25.12	47.58
Government payments	8.47	6.41	8.74	10.18
Net return with govt pmts	-20.04	-92.42	-16.38	57.76
Labor & management charge	22.02	20.56	21.91	25.16
Net return over lbr & mgt	-42.06	-112.98	-38.29	32.60
Cost of Production				
Total direct expense per bu.	4.21	5.07	4.19	3.45
Total dir & ovhd exp per bu.	5.25	6.39	5.06	4.31
Less govt & other income	4.99	6.18	4.86	3.87
With labor & management	5.40	6.59	5.26	4.31
Net value per unit	4.63	4.36	4.56	4.88
Machinery cost per acre	73.84	86.03	69.32	59.81
Est. labor hours per acre	1.22	1.15	1.16	1.28

Crop Enterprise Analysis
North Dakota Farm Business Management Education
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(Farms Sorted By Net Return)

Wheat, Spring on Share Rent

	Avg. Of All Farms
Number of farms	21
Acres	358.73
Yield per acre (bu.)	57.23
Operators share of yield %	63.62
Value per bu.	4.63
Total product return per acre	168.57
Crop insurance per acre	2.64
Other crop income per acre	1.31
Gross return per acre	172.53
Direct Expenses	
Seed	13.92
Fertilizer	52.08
Crop chemicals	26.86
Crop insurance	9.15
Fuel & oil	11.38
Repairs	17.75
Custom hire	2.75
Operating interest	3.08
Miscellaneous	3.78
Total direct expenses per acre	140.76
Return over direct exp per acre	31.77
Overhead Expenses	
Custom hire	1.39
Hired labor	5.23
Machinery leases	1.62
Farm insurance	4.33
Utilities	2.73
Dues & professional fees	1.06
Interest	3.04
Mach & bldg depreciation	35.08
Miscellaneous	2.22
Total overhead expenses per acre	56.70
Total dir & ovhd expenses per acre	197.46
Net return per acre	-24.93
Government payments	5.42
Net return with govt pmts	-19.52
Labor & management charge	20.77
Net return over lbr & mgt	-40.29
Cost of Production	
Total direct expense per bu.	3.87
Total dir & ovhd exp per bu.	5.42
Less govt & other income	5.17
With labor & management	5.74
Net value per unit	4.63
Machinery cost per acre	71.27
Est. labor hours per acre	1.11

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
Region 2 - North Central North Dakota, 2015
(Farms Sorted By Net Return)

Beef Cow-Calf -- Average Per Cwt. Produced

	Avg. Of All Farms		*40 - 60%*		*High 20%*	
Number of farms	24		5		5	
	Quantity	Value	Quantity	Value	Quantity	Value
Beef Calves sold (lb)	38.34	78.76	23.96	47.73	52.24	113.79
Transferred out (lb)	61.66	110.90	76.04	147.41	47.76	83.44
Cull sales (lb)		40.75		25.49		33.49
Other income		0.36		-		0.26
Purchased (lb)		-42.60		-77.80		-33.46
Transferred in (lb)		-27.47		-11.98		-2.80
Inventory change (lb)		12.90		57.12		4.63
Gross margin		173.72		188.63		199.35
Direct Expenses						
Protein Vit Minerals (lb.)	18.97	5.66	7.09	4.58	4.49	2.24
Creep / Starter (lb.)	23.85	1.00	14.44	1.44	26.69	2.81
Corn Silage (lb.)	583.40	8.06	433.03	5.05	166.13	2.08
Hay, Alfalfa (lb.)	207.10	6.58	381.89	8.14	174.02	4.92
Hay, Grass (lb.)	1,010.05	20.76	1,040.45	20.50	1,139.77	25.90
Pasture (aum)	1.37	20.46	1.29	26.50	1.35	17.48
Other feed stuffs (lb)	24.17	1.85	56.78	0.38	23.38	0.63
Breeding fees		0.42		-		-
Veterinary		5.84		5.54		3.17
Supplies		3.10		2.53		3.84
Fuel & oil		5.01		6.73		3.25
Repairs		11.49		16.17		7.16
Custom hire		2.26		0.86		2.78
Marketing		0.64		1.32		0.18
Operating interest		1.79		2.94		0.32
Total direct expenses		94.92		102.71		76.76
Return over direct expense		78.81		85.92		122.59
Overhead Expenses						
Hired labor		2.26		1.55		2.42
Farm insurance		1.82		2.31		1.19
Utilities		2.34		3.44		1.95
Dues & professional fees		0.72		0.41		0.33
Interest		2.01		3.80		1.09
Mach & bldg depreciation		10.06		8.77		9.70
Miscellaneous		0.78		0.88		0.56
Total overhead expenses		19.99		21.15		17.24
Total dir & ovhd expenses		114.91		123.86		94.00
Net return		58.81		64.76		105.35
Labor & management charge		13.06		15.10		11.62
Net return over lbr & mgt		45.75		49.66		93.73
Cost of Production Per Cwt. Produced						
Total direct expense per unit		94.92		102.71		76.76
Total dir& ovhd expense per unit		114.91		123.86		94.00
With other revenue adjustments		130.88		130.06		92.14
With labor and management		143.94		145.17		103.77
Est. labor hours per unit		1.05		1.16		1.05
Other Information						
Number of cows		148.6		127.7		138.9
Pregnancy percentage		94.6		92.9		96.3
Pregnancy loss percentage		3.3		2.4		3.1
Culling percentage		16.0		9.1		13.7
Calving percentage		91.5		90.7		93.3
Weaning percentage		86.9		86.0		89.9
Calves sold per cow		0.96		1.00		0.99
Calf death loss percent		5.1		5.5		3.9
Cow death loss percent		1.2		2.3		0.9
Average weaning weight		550		499		544
Lb. weaned/exposed female		478		429		489
Feed cost per cow		340.47		330.64		302.47
Avg wgt/ Beef Calves sold		564		503		562
Avg price / cwt.		205.42		199.18		217.81

Livestock Enterprise Analysis
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Beef Cow-Calf -- Average Per Cow

	Avg. Of All Farms		*40 - 60%*		*High 20%*	
Number of farms	24		5		5	
	Quantity	Value	Quantity	Value	Quantity	Value
Beef Calves sold (lb)	202.8	416.58	118.9	236.89	281.9	613.92
Transferred out (lb)	326.1	586.57	377.4	731.69	257.6	450.14
Cull sales (lb)		215.53		126.50		180.68
Other income		1.91		-		1.41
Purchased (lb)		-225.29		-386.16		-180.51
Transferred in (lb)		-145.29		-59.46		-15.12
Inventory change (lb)		68.24		283.50		24.98
Gross margin		918.83		936.26		1,075.49
Direct Expenses						
Protein Vit Minerals (lb.)	100.3	29.93	35.2	22.74	24.2	12.09
Creep / Starter (lb.)	126.1	5.31	71.7	7.17	144.0	15.16
Corn Silage (lb.)	3,085.6	42.62	2,149.4	25.08	896.3	11.23
Hay, Alfalfa (lb.)	1,095.4	34.82	1,895.6	40.43	938.9	26.55
Hay, Grass (lb.)	5,342.2	109.77	5,164.4	101.78	6,149.1	139.75
Pasture (aum)	7.2	108.23	6.4	131.56	7.3	94.28
Other feed stuffs (lb)	127.9	9.79	281.8	1.90	126.1	3.41
Breeding fees		2.23		-		-
Veterinary		30.89		27.50		17.10
Supplies		16.39		12.56		20.73
Fuel & oil		26.47		33.41		17.52
Repairs		60.77		80.25		38.64
Custom hire		11.95		4.28		15.01
Marketing		3.38		6.58		0.95
Operating interest		9.46		14.60		1.72
Total direct expenses		502.02		509.81		414.13
Return over direct expense		416.81		426.45		661.36
Overhead Expenses						
Hired labor		11.95		7.69		13.08
Farm insurance		9.65		11.45		6.41
Utilities		12.37		17.07		10.51
Dues & professional fees		3.79		2.03		1.79
Interest		10.65		18.88		5.86
Mach & bldg depreciation		53.22		43.52		52.31
Miscellaneous		4.13		4.36		3.04
Total overhead expenses		105.75		105.00		93.00
Total dir & ovhd expenses		607.77		614.81		507.13
Net return		311.06		321.45		568.35
Labor & management charge		69.06		74.95		62.71
Net return over lbr & mgt		242.00		246.49		505.65
Cost of Production Per Cwt. Produced						
Total direct expense per unit		94.92		102.71		76.76
Total dir& ovhd expense per unit		114.91		123.86		94.00
With other revenue adjustments		130.88		130.06		92.14
With labor and management		143.94		145.17		103.77
Est. labor hours per unit		5.54		5.75		5.66
Other Information						
Number of cows		148.6		127.7		138.9
Pregnancy percentage		94.6		92.9		96.3
Pregnancy loss percentage		3.3		2.4		3.1
Culling percentage		16.0		9.1		13.7
Calving percentage		91.5		90.7		93.3
Weaning percentage		86.9		86.0		89.9
Calves sold per cow		0.96		1.00		0.99
Calf death loss percent		5.1		5.5		3.9
Cow death loss percent		1.2		2.3		0.9
Average weaning weight		550		499		544
Lb. weaned/exposed female		478		429		489
Feed cost per cow		340.47		330.64		302.47
Avg wgt/ Beef Calves sold		564		503		562
Avg price / cwt.		205.42		199.18		217.81

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

	Avg. Of All Farms	
Number of farms	7	
	Quantity	Value
Beef Calves sold (lb)	77.97	151.50
Cull sales (lb)		42.93
Other income		0.28
Purchased (lb)		-45.66
Inventory change (lb)		24.21
Gross margin		175.74
Direct Expenses		
Corn (bu.)	0.38	1.13
Corn Silage (lb.)	325.89	3.69
Hay, Alfalfa (lb.)	267.73	9.22
Hay, Grass (lb.)	1,081.55	32.21
Pasture (aum)	1.31	22.46
Other feed stuffs (lb)	56.44	2.34
Veterinary		2.77
Supplies		3.32
Fuel & oil		8.67
Repairs		12.42
Custom hire		2.00
Hired labor		1.19
Machinery leases		0.82
Utilities		1.54
Operating interest		2.54
Total direct expenses		106.32
Return over direct expense		69.42
Overhead Expenses		
RE & pers. property taxes		0.10
Farm insurance		3.78
Utilities		1.45
Interest		5.33
Mach & bldg depreciation		11.89
Miscellaneous		1.27
Total overhead expenses		23.82
Total dir & ovhd expenses		130.14
Net return		45.60
Labor & management charge		17.84
Net return over lbr & mgt		27.76
Cost of Production Per Cwt. Produced		
Total direct expense per unit		106.32
Total dir& ovhd expense per unit		130.14
With other revenue adjustments		111.23
With labor and management		129.07
Est. labor hours per unit		1.42
Other Information		
Number of cows		108.0
Pregnancy percentage		97.5
Pregnancy loss percentage		0.3
Culling percentage		15.6
Calving percentage		97.2
Weaning percentage		94.4
Calves sold per cow		0.65
Calf death loss percent		3.0
Cow death loss percent		1.5
Average weaning weight		557
Lb. weaned/exposed female		526
Feed cost per cow		374.89
Avg wgt/ Beef Calves sold		635
Avg price / cwt.		194.32

Livestock Enterprise Analysis
North Dakota Farm Business Management Education
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Beef Cow-Calf Whole Herd w/backgrounding -- Average Per Cow

	Avg. Of All Farms	
Number of farms	7	
	Quantity	Value
Beef Calves sold (lb)	411.4	799.42
Cull sales (lb)		226.54
Other income		1.46
Purchased (lb)		-240.94
Inventory change (lb)		127.74
Gross margin		927.32
Direct Expenses		
Corn (bu.)	2.0	5.94
Corn Silage (lb.)	1,719.6	19.44
Hay, Alfalfa (lb.)	1,412.7	48.65
Hay, Grass (lb.)	5,706.8	169.98
Pasture (aum)	6.9	118.52
Other feed stuffs (lb)	297.8	12.35
Veterinary		14.60
Supplies		17.54
Fuel & oil		45.77
Repairs		65.52
Custom hire		10.53
Hired labor		6.29
Machinery leases		4.34
Utilities		8.14
Operating interest		13.40
Total direct expenses		561.02
Return over direct expense		366.30
Overhead Expenses		
Farm insurance		19.94
Utilities		7.66
Interest		28.12
Mach & bldg depreciation		62.72
Miscellaneous		7.23
Total overhead expenses		125.67
Total dir & ovhd expenses		686.69
Net return		240.63
Labor & management charge		94.14
Net return over lbr & mgt		146.49
Cost of Production Per Cwt. Produced		
Total direct expense per unit		106.32
Total dir& ovhd expense per unit		130.14
With other revenue adjustments		111.23
With labor and management		129.07
Est. labor hours per unit		7.47
Other Information		
Number of cows		108.0
Pregnancy percentage		97.5
Pregnancy loss percentage		0.3
Culling percentage		15.6
Calving percentage		97.2
Weaning percentage		94.4
Calves sold per cow		0.65
Calf death loss percent		3.0
Cow death loss percent		1.5
Average weaning weight		557
Lb. weaned/exposed female		526
Feed cost per cow		374.89
Avg wgt/ Beef Calves sold		635
Avg price / cwt.		194.32

Livestock Enterprise Analysis
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Beef Replacement Heifers -- Average Per Head Sold/Trans

	Avg. Of All Farms	
Number of farms	16	
	Quantity	Value
Beef Replace sold (hd)	0.1	292.18
Transferred out (hd)	0.9	1,456.19
Other income		-
Purchased (hd)	0.0	-72.25
Transferred in (hd)	0.7	-945.12
Inventory change (hd)	-0.2	-258.23
Gross margin		472.78
Direct Expenses		
Protein Vit Minerals (lb.)	14.0	7.76
Creep / Starter (lb.)	25.1	2.38
Complete Ration (lb.)	138.9	6.18
Corn (bu.)	2.3	6.50
Corn Silage (lb.)	2,062.4	26.85
Hay, Alfalfa (lb.)	207.1	5.86
Hay, Grass (lb.)	3,634.7	70.86
Pasture (aum)	3.7	57.83
DDGS, dry (lb.)	45.6	2.62
Other feed stuffs (lb)	123.9	3.43
Breeding fees		3.94
Veterinary		9.94
Supplies		5.99
Fuel & oil		3.50
Repairs		7.31
Custom hire		3.06
Total direct expenses		224.01
Return over direct expense		248.77
Overhead Expenses		
Hired labor		1.43
Interest		1.53
Mach & bldg depreciation		6.81
Miscellaneous		3.27
Total overhead expenses		13.04
Total dir & ovhd expenses		237.05
Net return		235.72
Labor & management charge		9.11
Net return over lbr & mgt		226.61
Est. labor hours per unit		0.69
Other Information		
No. purchased or trans in		29
Number sold or trans out		38
Average number of head		37
Percentage death loss		0.3
Feed cost per average head		194.87

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

Beef Backgrounding -- Average Per Cwt. Produced

	Avg. Of All Farms	
Number of farms	13	
	Quantity	Value
Backgnd Beef sold (lb)	369.33	725.46
Transferred out (lb)	102.78	183.01
Other income		0.94
Transferred in (lb)	-171.61	-333.11
Inventory change (lb)	-201.45	-510.83
Gross margin		65.48
Direct Expenses		
Protein Vit Minerals (lb.)	13.16	5.11
Complete Ration (lb.)	12.60	0.57
Barley (bu.)	1.10	2.63
Corn (bu.)	2.59	7.47
Corn Silage (lb.)	311.76	4.41
Hay, Alfalfa (lb.)	46.75	1.54
Hay, Grass (lb.)	337.82	7.27
Oats (bu.)	0.67	1.58
Pasture (aum)	0.07	1.02
Straw (lb.)	183.51	1.54
DDGS, dry (lb.)	20.12	1.59
Other feed stuffs (lb)	0.00	0.00
Veterinary		6.91
Supplies		0.50
Fuel & oil		2.87
Repairs		5.02
Custom hire		2.98
Operating interest		1.66
Total direct expenses		54.69
Return over direct expense		10.79
Overhead Expenses		
Utilities		0.88
Interest		1.07
Mach & bldg depreciation		6.72
Miscellaneous		2.76
Total overhead expenses		11.42
Total dir & ovhd expenses		66.11
Net return		-0.63
Labor & management charge		6.56
Net return over lbr & mgt		-7.19
Cost of Production Per Cwt. Produced		
Total direct expense per unit		190.14
Total dir& ovhd expense per unit		192.56
With other revenue adjustments		192.56
With labor and management		193.95
Est. labor hours per unit		0.48
Other Information		
No. purchased or trans in		59
Number sold or trans out		129
Percentage death loss		0.8
Avg. daily gain (lb.)		1.49
Lb. of conc / lb. of gain		2.65
Lb. of feed / lb. of gain		9.37
Feed cost per cwt. of gain		34.74
Feed cost per head		50.91
Avg wgt / Backgnd Beef sold		663
Avg sales price / cwt.		196.43

Livestock Enterprise Analysis
North Dakota Farm Business Management Education
Region 2 - North Central North Dakota, 2015
(Farms Sorted By Net Return)

Beef Backgrounding -- Average Per Head

	Avg. Of All Farms	
Number of farms	13	
	Quantity	Value
Backgnd Beef sold (lb)	541.3	1,063.16
Transferred out (lb)	150.6	268.20
Other income		1.38
Transferred in (lb)	-251.5	-488.17
Inventory change (lb)	-295.2	-748.62
Gross margin		95.96
Direct Expenses		
Protein Vit Minerals (lb.)	19.3	7.48
Complete Ration (lb.)	18.5	0.83
Barley (bu.)	1.6	3.85
Corn (bu.)	3.8	10.95
Corn Silage (lb.)	456.9	6.47
Hay, Alfalfa (lb.)	68.5	2.26
Hay, Grass (lb.)	495.1	10.66
Oats (bu.)	1.0	2.32
Pasture (aum)	0.1	1.49
Straw (lb.)	268.9	2.26
DDGS, dry (lb.)	29.5	2.32
Other feed stuffs (lb)	0.0	0.00
Veterinary		10.13
Supplies		0.74
Fuel & oil		4.20
Repairs		7.36
Custom hire		4.37
Operating interest		2.43
Total direct expenses		80.14
Return over direct expense		15.82
Overhead Expenses		
Utilities		1.29
Interest		1.56
Mach & bldg depreciation		9.85
Miscellaneous		4.04
Total overhead expenses		16.74
Total dir & ovhd expenses		96.88
Net return		-0.92
Labor & management charge		9.62
Net return over lbr & mgt		-10.54
Cost of Production Per Cwt. Produced		
Total direct expense per unit		190.14
Total dir& ovhd expense per unit		192.56
With other revenue adjustments		192.56
With labor and management		193.95
Est. labor hours per unit		0.71
Other Information		
No. purchased or trans in		59
Number sold or trans out		129
Percentage death loss		0.8
Avg. daily gain (lb.)		1.49
Lb. of conc / lb. of gain		2.65
Lb. of feed / lb. of gain		9.37
Feed cost per cwt. of gain		34.74
Feed cost per head		50.91
Avg wgt / Backgnd Beef sold		663
Avg sales price / cwt.		196.43

Figure 1. Gross Cash Income Per Farm

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

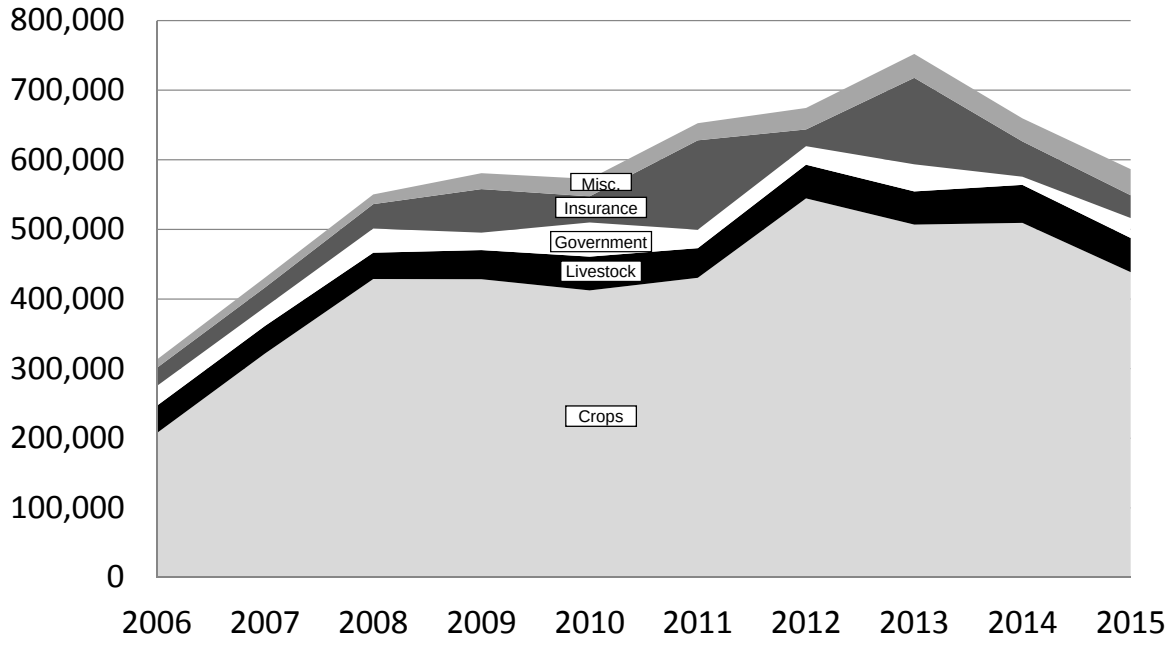
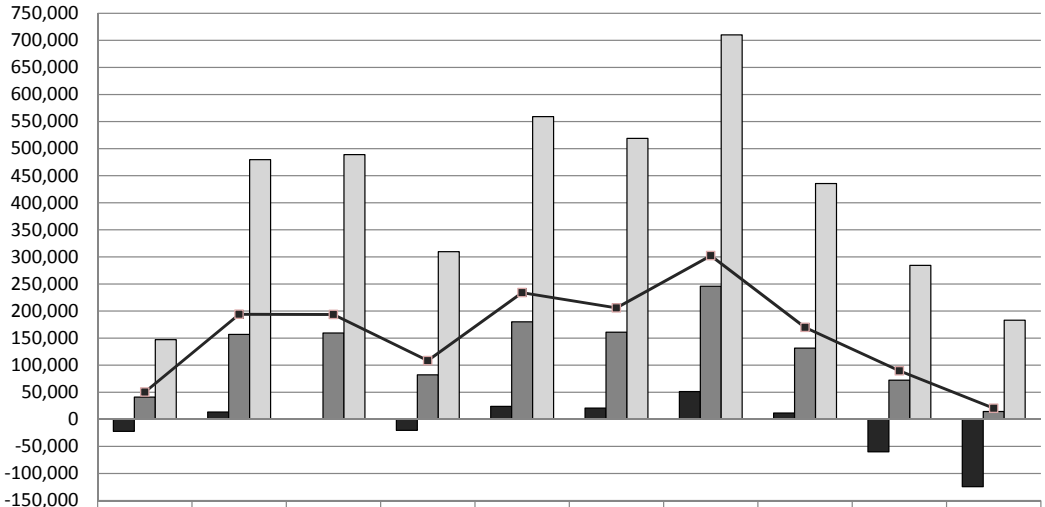


Figure 2. Net Farm Income (Accrual) Per Farm

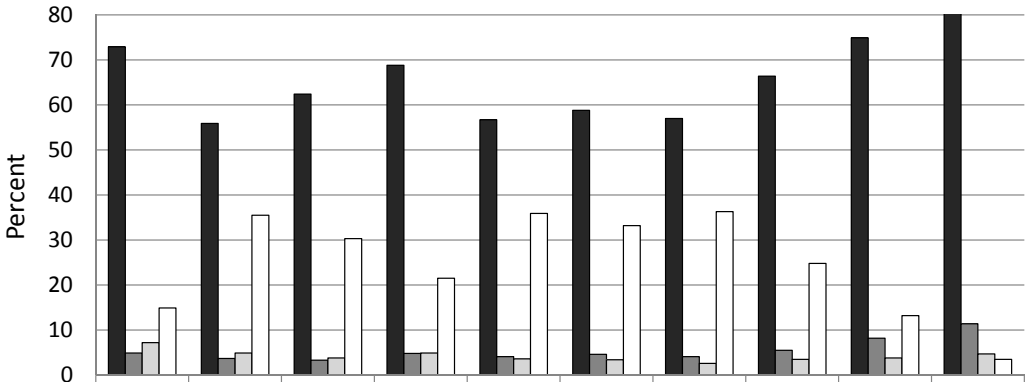
N.D. Farm Business Management Education Program – North Central Region



	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
20% Low Profit	(22,261)	13,514	511	(20,324)	23,973	20,712	51,285	11,620	(59,984)	(124,340)
Middle 60% Profit	41,159	156,790	159,529	82,288	180,154	160,933	245,816	131,506	72,312	14,371
20% High Profit	147,158	479,660	488,927	309,693	559,230	518,935	710,094	435,606	284,398	183,031
Average of All	50,280	193,952	193,605	108,397	233,968	205,803	302,314	169,771	89,569	20,361

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

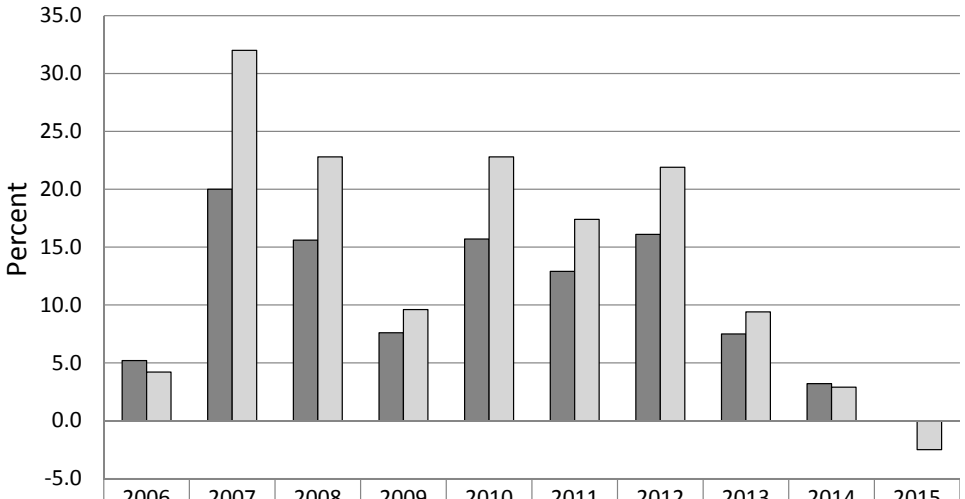
N.D. Farm Business Management Education Program – North Central Region



	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Operating Exp. %	72.9	55.9	62.4	68.8	56.7	58.8	57	66.4	74.9	80.4
Depreciation %	4.9	3.7	3.3	4.8	4.1	4.6	4.1	5.5	8.2	11.4
Interest Exp. %	7.2	4.9	3.8	4.9	3.6	3.4	2.6	3.5	3.8	4.7
Net Farm Inc. %	14.9	35.5	30.3	21.5	35.9	33.2	36.3	24.8	13.2	3.5

Figure 4. Profitability Measures Per Farm

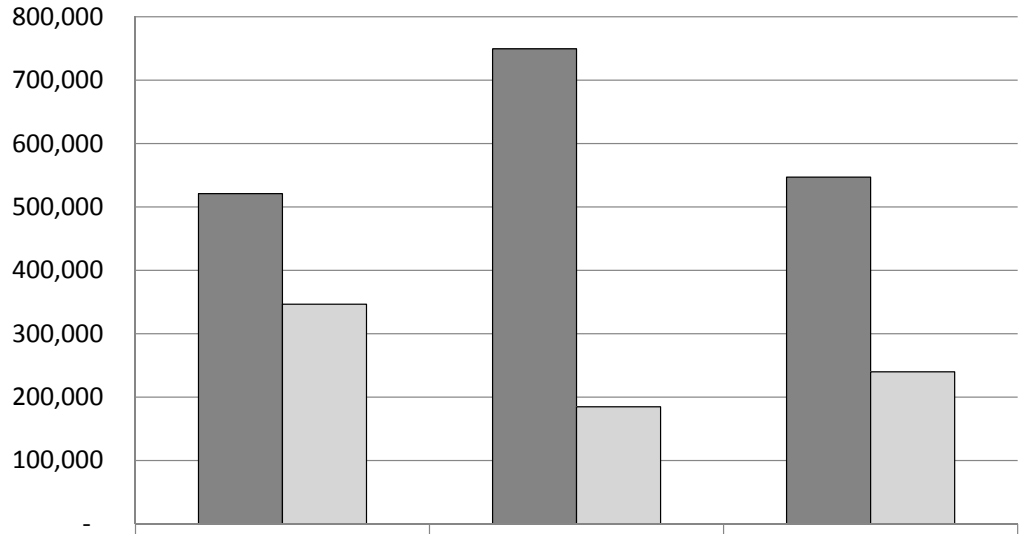
N.D. Farm Business Management Education Program – North Central Region



	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Rate of Return on Assets	5.2	20.0	15.6	7.6	15.7	12.9	16.1	7.5	3.2	0.0
Rate of Return on Equity	4.2	32.0	22.8	9.6	22.8	17.4	21.9	9.4	2.9	-2.5

Figure 5. Assets and Liabilities Per Farm, 2015

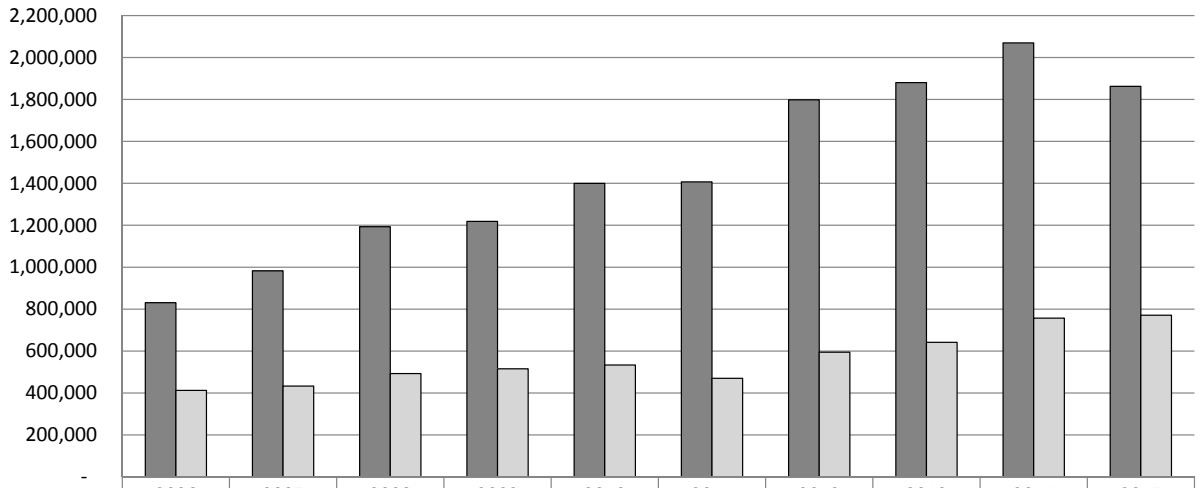
N.D. Farm Business Management Education Program – North Central Region



	Current	Intermediate	Longterm
Farm Assets	520,914	749,464	547,109
Farm Liabilities	346,614	184,716	239,810

Figure 6. Total Farm Assets and Liabilities

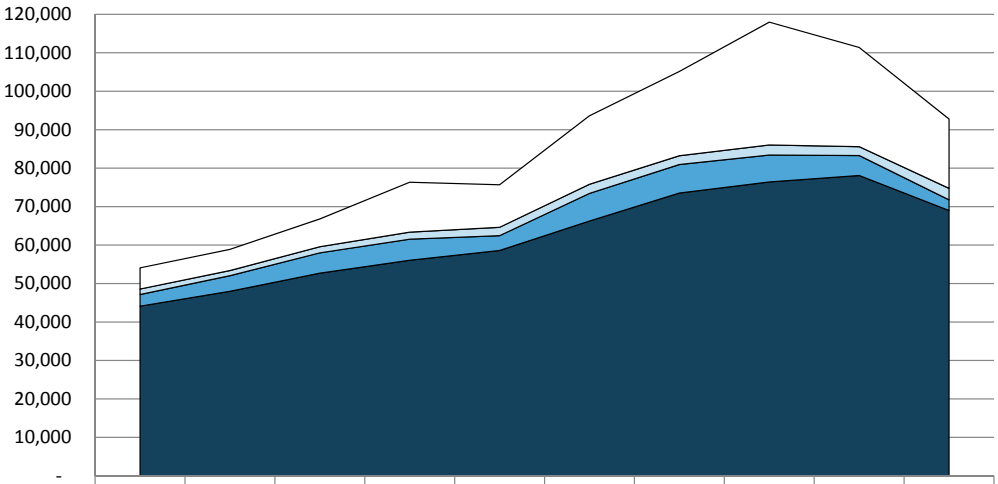
N.D. Farm Business Management Education Program – North Central Region



	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Assets	830,571	982,593	1,193,070	1,218,646	1,399,633	1,406,820	1,797,864	1,880,484	2,069,691	1,862,487
Liabilities	412,717	433,377	493,029	515,654	533,450	470,283	594,626	641,802	756,928	771,139

Figure 7. Household and Personal Expenses

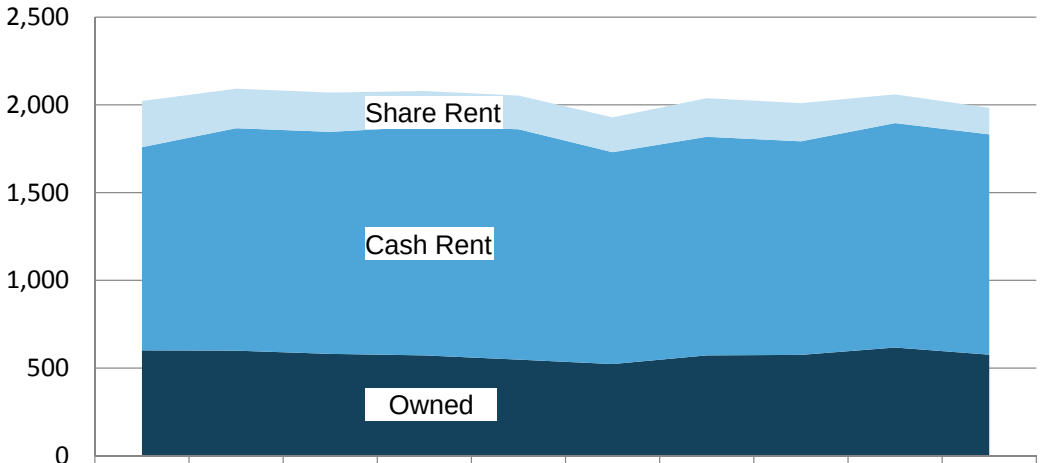
N.D. Farm Business Management Education Program – North Central Region



	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Income Taxes	5,508	5,493	7,225	12,972	11,054	17,817	21,921	31,934	25,790	18,024
Life Insurance	1,420	1,333	1,597	1,832	2,177	2,364	2,279	2,609	2,307	2,985
Furnishings & Vehicle	3,031	4,076	5,289	5,488	3,852	7,184	7,407	7,014	5,189	2,764
Family Living	44,118	47,975	52,689	56,053	58,595	66,261	73,536	76,404	78,095	68,995

Figure 8. Crop Acreage Per Farm

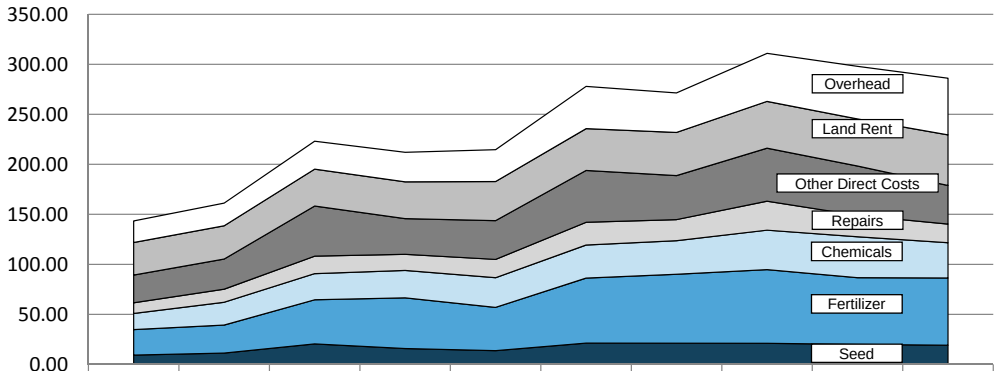
N.D. Farm Business Management Education Program – North Central Region



	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Share Rent	263	225	224	204	192	199	220	218	164	151
Cash Rent	1,158	1,268	1,265	1,303	1,313	1,207	1,246	1,217	1,279	1256
Owned	601	599	581	572	548	523	572	575	617	576

Figure 9. Spring Wheat Costs Per Acre

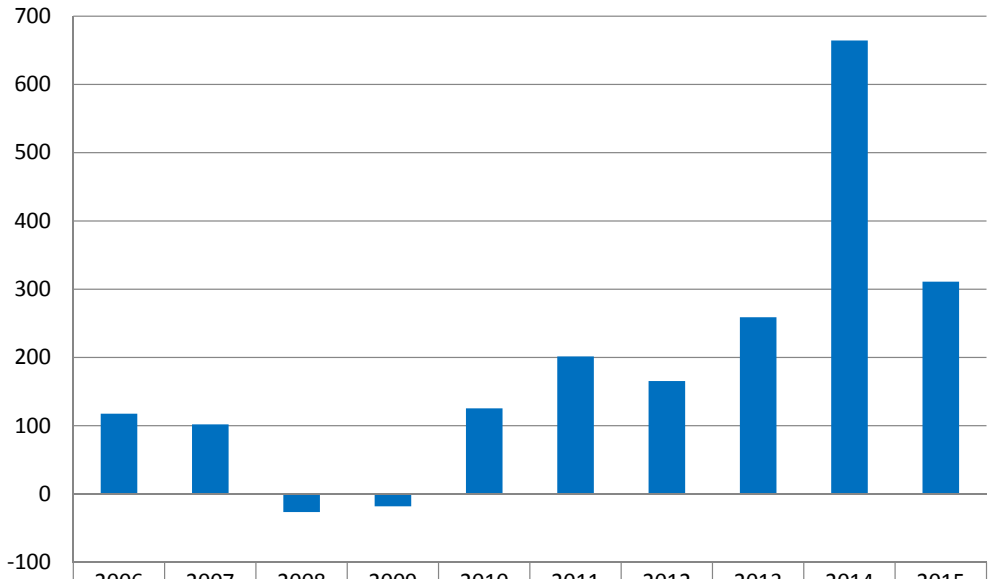
N.D. Farm Business Management Education Program – North Central Region



	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Overhead	21.60	22.71	27.87	29.50	31.85	42.28	39.47	48.02	52.60	56.70
Land Rent	32.57	33.28	36.89	36.85	39.12	41.79	43.17	46.80	47.03	50.56
Other Direct Costs	27.69	30.12	50.16	35.68	38.74	51.83	44.01	52.98	49.35	38.60
Repairs	10.72	13.06	17.45	16.08	18.34	22.74	21.11	29.00	21.41	18.64
Chemicals	16.07	22.83	26.18	27.39	29.66	33.05	33.52	39.47	40.89	35.32
Fertilizer	25.56	27.97	44.11	50.75	43.29	64.99	68.99	73.63	66.78	67.21
Seed	9.21	11.29	20.43	15.78	13.65	21.27	21.13	21.07	19.90	19.11

Figure 10. Average Net Return Per Beef Cow

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



	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Avg. Net Return	117.57	101.92	-26.41	-17.98	125.51	201.57	165.40	258.86	664.38	311.06

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[1]Based on towing and payload, when properly equipped. Class is Full-Size Pickup. [2]Based on 2013 CY Sales.

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