2017 ANNUAL REPORT Western North Dakota

North Dakota Farm and Ranch Business Management Education





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NORTH DAKOTA FARM BUSINESS MANAGEMENT EDUCATION

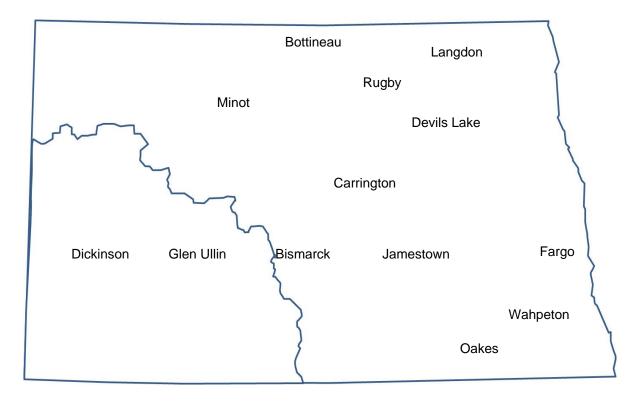
REGION 4 – WESTERN NORTH DAKOTA 2017 ANNUAL REPORT

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

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This report was made possible by the farm families who cooperated with their farm management instructors in getting the records for 2017 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



2017 Western North Dakota Report North Dakota Farm Business Management Education

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INTRODUCTION

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

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

The 2017 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 29th 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 "Crop government payments", which are ARC and PLC payments; "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; "CRP payments," and "Other government payments" which refers to all other government payments such as EQIP reimbursements, CSP payments and disaster payments.

The second section of the income statement lists <u>cash</u> 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 <u>are</u> 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: <u>Earnings Before Interest, Taxes, Depreciation and Amortization. This represents a measure of earnings available for debt repayment.</u>

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 <u>not</u> just those reporting nonfarm income.

Farm Income Statement

North Dakota Farm Business Management Education Program Region 4 - Western North Dakota, 2017 (Farms Sorted By Net Farm Income)

	Avg. Of			
	All Farms	Low 20%	40 - 60%	High 20%
Number of farms	52	10	11	11
Cash Farm Income				
Barley	7,749	1,037	-	-
Beans, Garbonzo	10,362	-	-	48,985
Canola	9,713	-	28,393	-
Corn	50,631	42,401	55,576	41,463
Corn Silage	556	2,894	-	-
Hay, Small Grain	4,267	475	263	7,875
Lentils	16,013	-	-	75,697
Oats	366	1,547	-	273
Peas, Field	7,318	2,056	7,988	24,735
Safflower	137	-	· -	648
Soybeans	38,590	30,006	59,038	47,979
Stover	338	304	257	-
Sunflowers	43,377	21,614	43,723	64,763
Wheat, Durum	21,889	-	-	60,111
Wheat, Spring	77,460	34,580	64,533	112,094
Wheat, Winter	401	-	- -	-
Hay	3,576	6,736	-	3,760
Miscellaneous crop income	3,178	5,533	3,653	4,920
Beef Bulls	3,521	9,997	· -	7,045
Beef Cow-Calf, Beef Calves	38,608	33,424	56,539	61,986
Beef Replacement Heifers	5,006	-	14,182	7,021
Beef Backgrounding	25,930	10,216	4,904	7,684
Beef Finishing	923	240	4,145	-
Beef Finish Yearlings	3,001	-	· -	14,189
Dairy, Milk	69,212	-	-	327,182
Dairy, Dairy Calves	708	-	-	3,346
Dairy Replacement Heifers	476	-	-	2,250
Honey Production, Honey	8,710	-	-	41,174
Dairy Backgrounding	1,873	-	-	8,855
Cull breeding livestock	18,840	16,483	10,463	34,960
Misc. livestock income	306	411	293	459
Crop government payments	22,857	12,878	20,143	38,128
Other government payments	13,014	6,244	6,459	30,391
Custom work income	9,643	12,804	4,847	19,856
Patronage dividends, cash	4,065	1,921	2,785	6,646
Crop insurance income	75,382	95,899	15,106	64,028
Property insurance income	3,258	-	-	9,652
Other farm income	7,517	4,230	5,707	9,958
Gross Cash Farm Income	608,771	353,928	408,998	1,188,112

Farm Income Statement (continued) North Dakota Farm Business Management Education Program Region 4 - Western North Dakota, 2017 (Farms Sorted By Net Farm Income)

	Avg. Of			
	All Farms	Low 20%	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	52	10	11	11
Cash Farm Expense	40.000	00.00=		
Seed and plants	43,299	26,067	48,014	53,027
Fertilizer	62,687	37,256	48,038	84,674
Crop chemicals	40,766	14,622	26,625	83,714
Crop insurance	16,895	12,720	8,976	26,345
Storage	252	95	- 1 756	-
Irrigation energy	1,088 1,377	- 59	1,756 263	4,298
Crop miscellaneous Consultants	259	59	1,126	4,296 96
Feeder livestock purchase	2,040	400	655	6,705
Purchased feed	52,820	15,798	22,295	189,836
Breeding fees	1,027	355	60	4,017
Veterinary	5,831	4,291	2,770	13,595
Supplies	3,133	925	1,071	10,584
Interest	28,341	22,705	11,317	36,478
Fuel & oil	20,969	15,019	11,068	39,095
Repairs	40,558	34,025	13,560	89,120
Custom hire	18,280	8,943	14,622	36,630
Hired labor	22,981	4,043	6,589	84,526
Land rent	67,449	54,594	65,706	94,185
Machinery leases	6,321	1,582	6,610	13,760
Building léases	603	233	305	241
Real estate taxes	2,806	1,483	1,142	4,663
Farm insurance	8,632	7,403	4,955	16,164
Utilities	7,986	4,336	2,603	18,888
Marketing	4,852	1,739	2,345	15,880
Dues & professional fees	1,154	1,835	563	1,482
_ Miscellaneous	7,399	4,031	4,618	9,677
Total cash expense	469,805	274,559	307,654	937,679
Net cash farm income	138,966	79,369	101,344	250,432
Inventory Changes				
Prepaids and supplies	14,755	1,627	18,968	29,444
Accounts receivable	10,159	4,484	1,114	36,544
Hedging accounts	-165	-	-	-33
Other current assets	-600	-2,601	40.700	-470 40.400
Crops and feed	-47,682	-82,153	-49,768	10,166
Market livestock	3,706	-10,424	321	16,707
Breeding livestock Other assets	-13,204 2,882	-9,467	-18,164 670	-15,222
Accounts payable		1,853	670 5,097	4,689
Accounts payable Accrued interest	-1,514 1,843	-12,521 2,607	2,515	159 -4,142
Total inventory change	-29,819	-106,594	-39,247	77,841
Net operating profit	109,147	-27,226	62,097	328,273
,	100,117	21,220	02,007	020,210
Depreciation				
Machinery and equipment	-37,370	-22,788	-23,660	-59,565
Titled vehicles	-6,111	-4,428	-5,689	-9,673
Buildings and improvements	-5,651	-1,896	-3,230	-14,348
Total depreciation	-49,132	-29,112	-32,578	-83,585
Net farm income from operations	60,015	-56,337	29,518	244,687
Gain or loss on capital sales	28	-2,441	82	2,116
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Net farm income	60,043	-58,778	29,600	246,804
		•	•	•

Inventory Changes North Dakota Farm Business Management Education Program Region 4 - Western North Dakota, 2017 (Farms Sorted By Net Farm Income)

	Avg. Of <u>All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u> </u>
Number of farms	52	10	11	11
Net cash farm income	138,966	79,369	101,344	250,432
Crops and Feed Ending inventory Beginning inventory Inventory change	248,505	45,639	238,796	437,136
	296,187	127,791	288,564	426,969
	-47,682	-82,153	-49,768	10,166
Market Livestock Ending inventory Beginning inventory Inventory change	51,455	19,050	11,005	83,063
	47,749	29,474	10,684	66,356
	3,706	-10,424	321	16,707
Accts Receivable Ending inventory Beginning inventory Inventory change	41,058	7,487	7,755	148,908
	30,899	3,003	6,641	112,364
	10,159	4,484	1,114	36,544
Prepaid Expenses and Supplies Ending inventory Beginning inventory Inventory change	49,628 34,872 14,755	8,368 6,741 1,627	45,003 26,035 18,968	104,973 75,529 29,444
Hedging Activities Ending inventory Withdrawals Beginning inventory Deposits Gain or loss	158	-	-	748
	283	-	-	1,336
	-	-	-	-
	606	-	-	2,117
	-165	-	-	-33
Other Current Assets Ending inventory Beginning inventory Inventory change	227 827 -600	1,183 3,784 -2,601	- - -	470 -470
Breeding Livestock Ending inventory Capital sales Beginning inventory Capital purchases Depreciation, capital adjust	138,334	61,441	60,525	345,760
	11,132	8,617	41,778	-
	142,179	75,835	91,497	316,986
	20,491	3,690	28,970	43,996
	-13,204	-9,467	-18,164	-15,222
Other Capital Assets Ending inventory Capital sales Beginning inventory Capital purchases Depreciation, capital adjust	29,133	22,834	10,454	34,007
	788	122	-	3,613
	26,979	20,832	9,784	32,896
	60	270	-	36
	2,882	1,853	670	4,689
Accounts Payable Beginning inventory Ending inventory Inventory change	17,526	7,189	16,299	47,735
	19,040	19,710	11,202	47,577
	-1,514	-12,521	5,097	159
Accrued Interest Beginning inventory Ending inventory Inventory change	11,607	9,632	5,033	11,474
	9,764	7,024	2,518	15,616
	1,843	2,607	2,515	-4,142
Total inventory change	-29,819	-106,594	-39,247	77,841
Net operating profit	109,147	-27,226	62,097	328,273

Depreciation North Dakota Farm Business Management Education Program Region 4 - Western North Dakota, 2017 (Farms Sorted By Net Farm Income)

	Avg. Of All Farms	Low 20%	40 - 60%	High 20%
Number of farms	52	10	11	11
Net operating profit	109,147	-27,226	62,097	328,273
Machinery and Equipment				
Ending inventory	362,348	172,296	233,516	601,751
Capital sales	12,128	23,483	5,505	6,533
Beginning inventory	378,278	203,858	251,708	596,644
Capital purchases	33,568	14,708	10,973	71,206
Depreciation, capital adjust.	-37,370	-22,788	-23,660	-59,565
Titled Vehicles				
Ending inventory	57,735	41,157	35,660	100,989
Capital sales	1,088	2,824	-	1,532
Beginning inventory	55,734	40,313	37,887	84,626
Capital purchases	9,199	8,095	3,461	27,568
Depreciation, capital adjust.	-6,111	-4,428	-5,689	-9,673
Buildings and Improvements				
Ending inventory	137,360	48,959	76,190	356,919
Capital sales	-	-	-	-
Beginning inventory	125,350	41,846	63,274	315,682
Capital purchases	17,661	9,009	16,145	55,584
Depreciation, capital adjust.	-5,651	-1,896	-3,230	-14,348
Total depreciation, capital adj.	-49,132	-29,112	-32,578	-83,585
Net farm income from operations	60,015	-56,337	29,518	244,687
Gain or loss on capital sales	28	-2,441	82	2,116
Net farm income	60,043	-58,778	29,600	246,804

Profitability Measures North Dakota Farm Business Management Education Program Region 4 - Western North Dakota, 2017 (Farms Sorted By Net Farm Income)

	Avg. Of All Farms	Low 20%	40 - 60%	High 20%
Number of farms	51	10	10	11
Profitability (assets valued at cost)				
Net farm income from operations	60,678	-56,337	29,849	244,687
Rate of return on assets	2.9 %	-11.0 %	0.2 %	7.8 %
Rate of return on equity	1.9 %	-40.7 %	-1.0 %	10.0 %
Operating profit margin	8.2 %	-26.4 %	0.5 %	20.0 %
Asset turnover rate	36.0 %	41.8 %	34.3 %	38.9 %
Farm interest expense	26,969	20,097	9,433	40,620
Value of operator lbr and mgmt.	45,236	27,599	37,418	76,188
Return on farm assets	42,411	-63,839	1,864	209,120
Average farm assets	1,441,553	579,517	1,011,660	2,682,915
Return on farm equity	15,442	-83,936	-7,569	168,500
Average farm equity	833,029	206,047	738,943	1,689,248
Value of farm production	518,514	242,023	346,708	1,044,422

Liquidity & Repayment Capacity Measures North Dakota Farm Business Management Education Program Region 4 - Western North Dakota, 2017 (Farms Sorted By Net Farm Income)

	Avg. Of All Farms	Low 20%	40 - 60%	High 20%
	7.11.7.41.11.0			
Number of farms	52	10	11	11
Liquidity				
Current ratio	2.17	0.81	2.83	4.15
Working capital	210,060	-20,785	227,651	582,423
Working capital to gross inc	43.0 %	-7.8 %	66.3 %	61.7 %
Current assets	389,316	87,262	351,751	767,243
Current liabilities	179,256	108,047	124,100	184,820
Gross revenues (accrual)	488,470	266,252	343,170	943,562
Repayment capacity				
Net farm income from operations	60,015	-56,337	29,518	244,687
Depreciation	49,132	29,112	32,578	83,585
Personal income	38,222	74,224	36,746	19,692
Family living/owner withdrawals	-57,873	-48,750	-50,293	-60,443
Cash discrepancy	1,033	90	1,193	4,730
Payments on personal debt	-5,071	-5,725	-4,380	-7,099
Income taxes paid	-10,252	-9,551	-12,846	-17,744
Interest on term debt	21,507	11,894	22,222	27,214
Capital debt repayment capacity	95,680	-5,134	53,546	289,894
Scheduled term debt payments	-73,108	-46,311	-43,798	-112,814
Capital debt repayment margin	22,573	-51,445	9,748	177,080
Cash replacement allowance	-19,119	-10,181	-18,090	-33,905
Replacement margin	3,453	-61,626	-8,342	143,175
Term debt coverage ratio	1.31	-0.11	1.22	2.57
Replacement coverage ratio	1.04	-0.09	0.87	1.98

Balance Sheet at Cost Values

North Dakota Farm Business Management Education Program Region 4 - Western North Dakota, 2017 (Farms Sorted By Net Farm Income)

	Avg. Of <u>All Farms</u>	Low 20%	<u>40 - 60%</u>	<u> </u>
Number of farms	47	9	10	9
Assets				
Current Farm Assets				
Cash and checking balance	8,427	12,262	51,034	-35,726
Prepaid expenses & supplies	53,496	8,665	49,503	122,839
Growing crops	220	1,147	-	-
Accounts receivable	34,400	5,176	8,530	127,562
Hedging accounts	175	-	<u>-</u>	914
Crops held for sale or feed	256,744	38,846	260,715	470,866
Market livestock held for sale	43,065	21,166	12,106	80,788
Other current assets	· -	-	· -	-
Total current farm assets	396,527	87,262	381,889	767,243
Intermediate Farm Assets				
Breeding livestock	105,367	68,267	55,729	227,151
Machinery and equipment	370,817	163,289	256,868	663,501
Titled vehicles	55,495	42,239	39,226	90,184
Other intermediate assets	5,072	1,072	3,890	16,253
Total intermediate farm assets	536,751	274,867	355,713	997,088
Long Term Farm Assets	040.000	04.440	455.070	714 004
Farm land	312,632	84,410	155,678	711,921
Buildings and improvements	96,962	48,964	83,808	170,381
Other long-term assets	25,813	19,250	7,609	25,312
Total long-term farm assets	435,407	152,623	247,096	907,614
Total Farm Assets	1,368,686	514,752	984,698	2,671,945
Total Nonfarm Assets	285,884	175,259	300,492	437,591
Total Assets	1,654,570	690,011	1,285,190	3,109,536
Liabilities				
Current Farm Liabilities	0.040	7 000	0.740	40.000
Accrued interest	9,840	7,602	2,740	16,906
Accounts payable	10,188	19,916	9,944	11,020
Current notes	120,733	49,753	100,311	78,225
Principal due on term debt	42,110	30,776	22,575	78,668
Total current farm liabilities	182,870	108,047	135,571	184,820
Total intermediate farm liabs	117,451	89,630	44,685	228,294
Total long term farm liabilities	242,805	126,277	68,070	475,774
Total farm liabilities	543,126	323,955	248,326	888,888
Total nonfarm liabilities	58,513	65,485	62,464	93,622
Total liabilities	601,639	389,440	310,790	982,510
Net worth (farm and nonfarm)	1,052,931	300,571	974,399	2,127,026
Net worth change	57,460	-34,388	27,927	208,670
Percent net worth change	6 %	-10 %	3 %	11 %
Ratio Analysis				
Current farm liabilities / assets	46 %	124 %	36 %	24 %
Intermediate farm liab. / assets	22 %	33 %	13 %	23 %
	EC 0/	00.0/	20.0/	EO 0/
Long term farm liab. / assets Total debt to asset ratio	56 % 36 %	83 % 56 %	28 % 24 %	52 % 32 %

Statement Of Cash Flows

North Dakota Farm Business Management Education Program Region 4 - Western North Dakota, 2017 (Farms Sorted By Net Farm Income)

	Avg. Of All Farms	Low 20%	40 - 60%	High 20%
Number of farms	52	10	11	11
Beginning cash (farm & nonfarm)	13,252	28,593	37,645	-18,288
Cash Provided By Operating Activities	;			
Gross cash farm income	608,771	353,928	408,998	1,188,112
Total cash farm expense	-469,805	-274,559	-307,654	-937,679
Net cash from hedging transactions	-323	-	-	-780
Cash provided by operating	138,643	79,369	101,344	249,652
Cash Provided By Investing Activities				
Sale of breeding livestock	11,196	8,617	41,778	-
Sale of machinery & equipment	12,161	21,356	5,586	8,350
Sale of titled vehicles	868	2,510	-	1,110
Sale of farm land	9,308	-	-	-
Sale of farm buildings	-	-	-	-
Sale of other farm assets	940	122	-	4,335
Sale of nonfarm assets	1,984	100	1,955	-
Purchase of breeding livestock	-20,491	-3,690	-28,970	-43,996
Purchase of machinery & equip.	-33,568	-14,708	-10,973	-71,206
Purchase of titled vehicles	-9,199	-8,095	-3,461	-27,568
Purchase of farm land	-52,974	-	-13,727	-199,241
Purchase of farm buildings	-17,661	-9,009	-16,145	-55,584
Purchase of other farm assets	-60	-270	-	-36
Purchase of nonfarm assets	-17,495	-11,182	-21,861	-24,108
Cash provided by investing	-114,992	-14,249	-45,818	-407,943
Cash Provided By Financing Activities				
Money borrowed	417,348	210,325	266,295	704,146
Principal payments	-416,834	-285,961	-290,661	-512,509
Personal income	38,222	74,224	36,746	19,692
Family living/owner withdrawals	-57,873	-48,750	-50,293	-60,443
Income and social security tax	-10,252	-9,551	-12,846	-17,744
Capital contributions	-	-	-	-
Capital distributions	-40	-	-	-191
Dividends paid	-	-	-	-
Cash gifts and inheritances	12,303	-	8,432	17,527
Gifts given	-71	-	-	-247
Other cash flows	-	-	-	-
Cash provided by financing	-17,198	-59,714	-42,327	150,232
Net change in cash balance	6,453	5,406	13,199	-8,060
Ending cash (farm & nonfarm)	20,739	34,089	52,037	-21,618
Discrepancy	-1,033	-90	-1,193	-4,730

Financial Standards Measures North Dakota Farm Business Management Education Program Region 4 - Western North Dakota, 2017 (Farms Sorted By Net Farm Income)

	Avg. Of			
	All Farms	Low 20%	40 - 60%	High 20%
Number of farms	52	10	11	11
Liquidity				
Current ratio	2.17	0.81	2.83	4.15
Working capital	210,060	-20,785	227,651	582,423
Working capital to gross inc	43.0 %	-7.8 %	66.3 %	61.7 %
Solvency (cost)				
Farm debt to asset ratio	40 %	63 %	25 %	33 %
Farm equity to asset ratio	60 %	37 %	75 %	67 %
Farm debt to equity ratio	0.66	1.70	0.34	0.50
Profitability (cost)				
Rate of return on farm assets	2.9 %	-11.0 %	0.2 %	7.8 %
Rate of return on farm equity	1.9 %	-40.7 %	-1.0 %	10.0 %
Operating profit margin	8.2 %	-26.4 %	0.5 %	20.0 %
Net farm income	61,221	-58,778	32,560	246,804
EBITDA	138,305	-7,128	77,989	368,893
Repayment Capacity				
Capital debt repayment capacity	95,680	-5,134	53,546	289,894
Capital debt repayment margin	22,573	-51,445	9,748	177,080
Replacement margin	3,453	-61,626	-8,342	143,175
Term debt coverage ratio	1.31	-0.11	1.22	2.57
Replacement coverage ratio	1.04	-0.09	0.87	1.98
Efficiency				
Asset turnover rate (cost)	36.0 %	41.8 %	34.3 %	38.9 %
Operating expense ratio	76.0 %	102.8 %	79.3 %	70.3 %
Depreciation expense ratio	8.7 %	11.3 %	9.5 %	6.7 %
Interest expense ratio	4.7 %	7.8 %	2.6 %	3.3 %
Net farm income ratio	10.6 %	-22.8 %	8.6 %	19.9 %

Crop Production and Marketing Summary North Dakota Farm Business Management Education Program Region 4 - Western North Dakota, 2017 (Farms Sorted By Net Farm Income)

Number of farms 52		Avg. Of All Farms	Low 20%	40 - 60%	High 20%
Total acres owned 797 478 213 999 Total crop acres 5 1,735 1,319 1,189 2,720 Crop acres cash certed 386 154 169 426 Crop acres cash rented 1,226 1,144 920 1,901 Crop acres cash rented 123 20 100 393 Total pasture acres 1,221 671 1,307 1,899 Percent crop acres owned 22 % 12 % 14 % 16 % Mach invest/crop acres cost 240 152 235 245 Average Price Received (Cash Sales Only) Wheat, Spring per bushel 5.08 - 4.63 5.08 Corn per bushel 3.05 - 4 4.63 5.08 Corn per bushel 8.78 - 5 5.08 For a	Number of farms	52	10	11	11
Total acres owned 797 478 213 999 Total crop acres 5 1,735 1,319 1,189 2,720 Crop acres cash certed 386 154 169 426 Crop acres cash rented 1,226 1,144 920 1,901 Crop acres cash rented 123 20 100 393 Total pasture acres 1,221 671 1,307 1,899 Percent crop acres owned 22 % 12 % 14 % 16 % Mach invest/crop acres cost 240 152 235 245 Average Price Received (Cash Sales Only) Wheat, Spring per bushel 5.08 - 4.63 5.08 Corn per bushel 3.05 - 4 4.63 5.08 Corn per bushel 8.78 - 5 5.08 For a	Acreage Summary				
Crop acres owned 386 154 169 426 Crop acres cash rented 1,226 1,144 920 1,901 Crop acres share rented 123 20 100 393 Total pasture acres 1,221 671 1,307 1,899 Percent crop acres owned 22 % 12 % 14 % 16 % Mach invest/crop acre cost 240 152 235 245 Average Price Received (Cash Sales Only) Wheat, Spring per bushel 5.08 - 4.63 5.08 Corn per bushel 3.05 - - 3.10 Sunflowers per cwt 17.82 - - - - Soybeans per bushel 8.78 - - - - Hay, Small Grain per ton 104.65 - - - - Wheat, Durum per bushel 6.45 - - - - Barley per bushel 9.28 37.10 33.39 - - - <td></td> <td>797</td> <td>478</td> <td>213</td> <td>999</td>		797	478	213	999
Crop acres cash rented 1,226 1,144 920 1,901 Crop acres share rented 123 20 100 393 Total pasture acres 1,221 671 1,307 1,899 Percent crop acres owned 22 % 12 % 14 % 16 % Mach invest/crop acre cost 240 152 235 245 Average Price Received (Cash Sales Only) Wheat, Spring per bushel 5.08 - 4.63 5.08 Corn per bushel 3.05 - - 3.10 Sunflowers per cwt 17.82 - - - Soybeans per bushel 8.78 - - - Hay, Small Grain per ton 104.65 - - - Hay, Durum per bushel 6.45 - - - Barley per bushel 4.32 - - - Average Yield Per Acre - - - - Pasture (aum) 0.606 0.586 0.649 0.5	Total crop acres	1,735	1,319	1,189	2,720
Crop acres share rented 123 20 100 393 Total pasture acres 1,221 671 1,307 1,899 Percent crop acres owned 22 % 12 % 14 % 16 % Mach invest/crop acre cost 240 152 235 245 Average Price Received (Cash Sales Only) Wheat, Spring per bushel 5.08 - 4.63 5.08 Corn per bushel 3.05 - - 3.10 Sunflowers per cwt 17.82 - - - 3.10 Sunflowers per bushel 8.78 -	Crop acres owned	386	154	169	426
Total pasture acres 1,221 671 1,307 1,899 Percent crop acres owned 22 % 12 % 14 % 16 % Mach invest/crop acre cost 240 152 235 245 Average Price Received (Cash Sales Only) Wheat, Spring per bushel 5.08 - 4.63 5.08 Corn per bushel 3.05 - - 3.10 Sunflowers per cwt 17.82 - - - - Soybeans per bushel 8.78 -	Crop acres cash rented	1,226	1,144	920	1,901
Percent crop acres owned 22 % 12 % 14 % 16 % Mach invest/crop acre cost 240 152 235 245 Average Price Received (Cash Sales Only) Wheat, Spring per bushel 5.08 - 4.63 5.08 Corn per bushel 3.05 - - 3.10 Sunflowers per cwt 17.82 - - 3.10 Soybeans per bushel 8.78 - - - - Hay, Small Grain per ton 104.65 - - - - - Wheat, Durum per bushel 6.45 -	Crop acres share rented	123	20	100	393
Mach invest/crop acre cost 240 152 235 245 Average Price Received (Cash Sales Only) Wheat, Spring per bushel 5.08 - 4.63 5.08 Com per bushel 3.05 - - 3.10 Sunflowers per cwt 17.82 - - - Soybeans per bushel 8.78 - - - Hay, Small Grain per ton 104.65 - - - Wheat, Durum per bushel 6.45 - - - Barley per bushel 4.32 - - - Average Yield Per Acre - - - - Pasture (aum) 0.606 0.586 0.649 0.540 Wheat, Spring (bushel) 22.07 9.28 37.10 33.39 Hay, Mixed Alfalfa/Grass (ton) 0.613 0.321 - 0.668 Corn (bushel) 92.37 53.92 - - - Hay, Small Grain (ton) 1.18 - -	Total pasture acres	1,221	671	1,307	1,899
Average Price Received (Cash Sales Only) Wheat, Spring per bushel 3.05 - 4.63 5.08 Corn per bushel 3.05 - - 3.10 Sunflowers per cwt 17.82 - - - Soybeans per bushel 8.78 - - - Hay, Small Grain per ton 104.65 - - - Wheat, Durum per bushel 6.45 - - - Barley per bushel 4.32 - - - Average Yield Per Acre - - - - Pasture (aum) 0.606 0.586 0.649 0.540 Wheat, Spring (bushel) 22.07 9.28 37.10 33.39 Hay, Mixed Alfalfa/Grass (ton) 0.613 0.321 - 0.668 Corn (bushel) 92.37 53.92 - - Hay, Small Grain (ton) 1.18 - - 0.901 Soybeans (bushel) 28.89 18.93 - -	Percent crop acres owned	22 %	12 %	14 %	16 %
Wheat, Spring per bushel 5.08 - 4.63 5.08 Corn per bushel 3.05 - - 3.10 Sunflowers per cwt 17.82 - - - Soybeans per bushel 8.78 - - - Hay, Small Grain per ton 104.65 - - - Wheat, Durum per bushel 6.45 - - - Barley per bushel 4.32 - - - Average Yield Per Acre - - - - Pasture (aum) 0.606 0.586 0.649 0.540 Wheat, Spring (bushel) 22.07 9.28 37.10 33.39 Hay, Mixed Alfalfa/Grass (ton) 0.613 0.321 - 0.668 Corn (bushel) 92.37 53.92 - - Hay, Small Grain (ton) 1.18 - - 0.901 Soybeans (bushel) 28.89 18.93 - - Sunflowers (cwt) 13.50 0.985<	Mach invest/crop acre cost	240	152	235	245
Wheat, Spring per bushel 5.08 - 4.63 5.08 Corn per bushel 3.05 - - 3.10 Sunflowers per cwt 17.82 - - - Soybeans per bushel 8.78 - - - Hay, Small Grain per ton 104.65 - - - Wheat, Durum per bushel 6.45 - - - Barley per bushel 4.32 - - - Average Yield Per Acre - - - - Pasture (aum) 0.606 0.586 0.649 0.540 Wheat, Spring (bushel) 22.07 9.28 37.10 33.39 Hay, Mixed Alfalfa/Grass (ton) 0.613 0.321 - 0.668 Corn (bushel) 92.37 53.92 - - Hay, Small Grain (ton) 1.18 - - 0.901 Soybeans (bushel) 28.89 18.93 - - Sunflowers (cwt) 13.50 0.985<	Average Price Received (Cash Sales	s Only)			
Corn per bushel 3.05 - - 3.10 Sunflowers per cwt 17.82 - - - Soybeans per bushel 8.78 - - - Hay, Small Grain per ton 104.65 - - - Wheat, Durum per bushel 6.45 - - - Barley per bushel 4.32 - - - Average Yield Per Acre - - - - Pasture (aum) 0.606 0.586 0.649 0.540 Wheat, Spring (bushel) 22.07 9.28 37.10 33.39 Hay, Mixed Alfalfa/Grass (ton) 0.613 0.321 - 0.668 Corn (bushel) 92.37 53.92 - - - Hay, Small Grain (ton) 1.18 - - 0.901 Soybeans (bushel) 28.89 18.93 - - Sunflowers (cwt) 13.50 0.985 - - Peas, Field (bushel) 25.66			-	4.63	5.08
Soybeans per bushel 8.78 - - - Hay, Small Grain per ton 104.65 - - - Wheat, Durum per bushel 6.45 - - - Barley per bushel 4.32 - - - Average Yield Per Acre - - - - Pasture (aum) 0.606 0.586 0.649 0.540 Wheat, Spring (bushel) 22.07 9.28 37.10 33.39 Hay, Mixed Alfalfa/Grass (ton) 0.613 0.321 - 0.668 Corn (bushel) 92.37 53.92 - - - Hay, Small Grain (ton) 1.18 - - - - Hay, Small Grain (ton) 1.18 - - 0.901 Soybeans (bushel) 28.89 18.93 - - Sunflowers (cwt) 13.50 0.985 - - Peas, Field (bushel) 25.66 21.32 - 26.84 Hay, Grass (ton) <td>Corn per bushel</td> <td>3.05</td> <td>-</td> <td>-</td> <td>3.10</td>	Corn per bushel	3.05	-	-	3.10
Hay, Small Grain per ton 104.65 - - - Wheat, Durum per bushel 6.45 - - - Barley per bushel 4.32 - - - Average Yield Per Acre - - - - Pasture (aum) 0.606 0.586 0.649 0.540 Wheat, Spring (bushel) 22.07 9.28 37.10 33.39 Hay, Mixed Alfalfa/Grass (ton) 0.613 0.321 - 0.668 Corn (bushel) 92.37 53.92 - - - Hay, Small Grain (ton) 1.18 - - 0.901 Soybeans (bushel) 28.89 18.93 - - Sunflowers (cwt) 13.50 0.985 - - Peas, Field (bushel) 25.66 21.32 - 26.84 Hay, Grass (ton) 0.266 0.272 - - Corn Silage (ton) 11.56 - - - Flax (bushel) 8.87 - - - Hay, Alfalfa (ton) 1.22 -<	Sunflowers per cwt	17.82	-	-	-
Wheat, Durum per bushel 6.45 - </td <td>Soybeans per bushel</td> <td>8.78</td> <td>-</td> <td>-</td> <td>-</td>	Soybeans per bushel	8.78	-	-	-
Average Yield Per Acre Pasture (aum) 0.606 0.586 0.649 0.540 Wheat, Spring (bushel) 22.07 9.28 37.10 33.39 Hay, Mixed Alfalfa/Grass (ton) 0.613 0.321 - 0.668 Corn (bushel) 92.37 53.92 - - - Hay, Small Grain (ton) 1.18 - - 0.901 Soybeans (bushel) 28.89 18.93 - - Sunflowers (cwt) 13.50 0.985 - - Peas, Field (bushel) 25.66 21.32 - 26.84 Hay, Grass (ton) 0.266 0.272 - - Corn Silage (ton) 11.56 - - - Flax (bushel) 8.87 - - - Hay, Alfalfa (ton) 1.22 - - - Lentils (cwt) 9.72 - - - -	Hay, Small Grain per ton	104.65	-	-	-
Average Yield Per Acre Pasture (aum) 0.606 0.586 0.649 0.540 Wheat, Spring (bushel) 22.07 9.28 37.10 33.39 Hay, Mixed Alfalfa/Grass (ton) 0.613 0.321 - 0.668 Corn (bushel) 92.37 53.92 - - Hay, Small Grain (ton) 1.18 - - 0.901 Soybeans (bushel) 28.89 18.93 - - Sunflowers (cwt) 13.50 0.985 - - Peas, Field (bushel) 25.66 21.32 - 26.84 Hay, Grass (ton) 0.266 0.272 - - Corn Silage (ton) 11.56 - - - Flax (bushel) 8.87 - - - Hay, Alfalfa (ton) 1.22 - - - Lentils (cwt) 9.72 - - 9.72	Wheat, Durum per bushel	6.45	-	-	-
Pasture (aum) 0.606 0.586 0.649 0.540 Wheat, Spring (bushel) 22.07 9.28 37.10 33.39 Hay, Mixed Alfalfa/Grass (ton) 0.613 0.321 - 0.668 Corn (bushel) 92.37 53.92 - - - Hay, Small Grain (ton) 1.18 - - 0.901 Soybeans (bushel) 28.89 18.93 - - - Sunflowers (cwt) 13.50 0.985 - - - Peas, Field (bushel) 25.66 21.32 - 26.84 Hay, Grass (ton) 0.266 0.272 - - Corn Silage (ton) 11.56 - - - Flax (bushel) 8.87 - - - Hay, Alfalfa (ton) 1.22 - - - Lentils (cwt) 9.72 - - -	Barley per bushel	4.32	-	-	-
Pasture (aum) 0.606 0.586 0.649 0.540 Wheat, Spring (bushel) 22.07 9.28 37.10 33.39 Hay, Mixed Alfalfa/Grass (ton) 0.613 0.321 - 0.668 Corn (bushel) 92.37 53.92 - - - Hay, Small Grain (ton) 1.18 - - 0.901 Soybeans (bushel) 28.89 18.93 - - - Sunflowers (cwt) 13.50 0.985 - - - Peas, Field (bushel) 25.66 21.32 - 26.84 Hay, Grass (ton) 0.266 0.272 - - Corn Silage (ton) 11.56 - - - Flax (bushel) 8.87 - - - Hay, Alfalfa (ton) 1.22 - - - Lentils (cwt) 9.72 - - -	Average Yield Per Acre				
Wheat, Spring (bushel) 22.07 9.28 37.10 33.39 Hay, Mixed Alfalfa/Grass (ton) 0.613 0.321 - 0.668 Corn (bushel) 92.37 53.92 - - Hay, Small Grain (ton) 1.18 - - 0.901 Soybeans (bushel) 28.89 18.93 - - Sunflowers (cwt) 13.50 0.985 - - Peas, Field (bushel) 25.66 21.32 - 26.84 Hay, Grass (ton) 0.266 0.272 - - Corn Silage (ton) 11.56 - - - - Flax (bushel) 8.87 - - - - Hay, Alfalfa (ton) 1.22 - - - - Lentils (cwt) 9.72 - - 9.72		0.606	0.586	0 649	0.540
Hay, Mixed Alfalfa/Grass (ton) 0.613 0.321 - 0.668 Corn (bushel) 92.37 53.92 - - Hay, Small Grain (ton) 1.18 - - 0.901 Soybeans (bushel) 28.89 18.93 - - Sunflowers (cwt) 13.50 0.985 - - - Peas, Field (bushel) 25.66 21.32 - 26.84 Hay, Grass (ton) 0.266 0.272 - - - Corn Silage (ton) 11.56 - - - - Flax (bushel) 8.87 - - - - Hay, Alfalfa (ton) 1.22 - - - - Lentils (cwt) 9.72 - - 9.72 - 9.72					
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Corn Silage (ton) 11.56 - - - Flax (bushel) 8.87 - - - Hay, Alfalfa (ton) 1.22 - - - Lentils (cwt) 9.72 - - 9.72				-	20.04
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Hay, Alfalfa (ton) 1.22 - - - 9.72 Lentils (cwt) 9.72 - - 9.72			- -	<u>-</u>	-
Lentils (cwt) 9.72 - 9.72			- -	<u>-</u>	-
- · · · · ·			-	- -	0 72
	Canola (cwt)	10.92	_	_ _	5.72

Household and Personal Expenses North Dakota Farm Business Management Education Program Region 4 - Western North Dakota, 2017 (Farms Sorted By Net Farm Income)

	Avg. Of All Farms
Number of farms	18
Average family size	3.3
Family Living Expenses Food and meals expense Medical care Health insurance Cash donations Household supplies Clothing Personal care Child / Dependent care Alimony and child support Gifts Education Recreation Utilities (household share) Personal vehicle operating exp Household real estate taxes Dwelling rent Household repairs Personal interest Disability / Long term care ins Life insurance payments Personal property insurance Miscellaneous Total cash family living expense Family living from the farm Total family living	11,228 7,122 7,962 4,128 5,170 2,037 3,593 1,299
Other Nonfarm Expenditures Income taxes Furnishing & appliance purchases Nonfarm vehicle purchases Nonfarm real estate purchases Other nonfarm capital purchases Nonfarm savings & investments Total other nonfarm expenditures	15,312 180 7,383 4,649 -556 10,394 37,364
Total cash family living investment & nonfarm capital purch	112,917

Operator and Labor Information North Dakota Farm Business Management Education Program Region 4 - Western North Dakota, 2017 (Farms Sorted By Net Farm Income)

	Avg. Of All Farms	Low 20%	40 - 60%	High 20%
Number of farms	52	10	11	11
Operator Information				
Average number of operators	1.1	1.1	1.0	1.2
Average age of operators	44.8	50.1	38.4	42.2
Average number of years farming	20.9	26.0	14.8	17.7
Results Per Operator				
Working capital	184,926	-23,504	246,317	411,382
Total assets (cost)	1,613,769	613,314	1,285,190	2,812,332
Total liabilities	623,672	358,255	310,790	1,035,540
Net worth (cost)	990,097	255,059	974,399	1,776,792
Gross farm income	524,148	234,747	343,170	1,050,045
Total farm expense	468,419	285,963	313,652	843,002
Net farm income from operations	55,728	-51,216	29,518	207,043
Net nonfarm income	35,492	67,476	36,746	16,663
Family living & tax withdrawals	62,300	52,919	61,946	62,155
Total acres owned	739.8	434.2	212.5	845.2
Total crop acres	1,610.8	1,198.7	1,189.0	2,301.5
Crop acres owned	358.7	139.8	169.2	360.8
Crop acres cash rented	1,138.0	1,040.2	920.0	1,608.4
Crop acres share rented	114.1	18.6	99.8	332.3
Total pasture acres	1,134.2	610.4	1,306.9	1,606.5
Labor Analysis				
Number of farms	52	10	11	11
Total unpaid labor hours	1,918	1,645	1,536	2,450
Total hired labor hours	991	287	237	3,573
Total labor hours per farm	2,910	1,932	1,773	6,023
Unpaid hours per operator	1,781	1,495	1,536	2,073

Nonfarm Summary North Dakota Farm Business Management Education Program Region 4 - Western North Dakota, 2017 (Farms Sorted By Net Farm Income)

	Avg. Of All Farms	Low 20%	40 - 60%	High 20%
Number of farms	52	10	11	11
Nonfarm Income				
Personal wages & salary	25,101	35,444	32,793	11,406
Net nonfarm business income	4,859	21,489	-541	3,975
Personal rental income	182	-	-	-
Personal interest income	95	5	10	428
Personal cash dividends	15	54	-	1
Taxrefunds	1,577	2,433	860	3,318
Other nonfarm income	6,394	14,798	3,623	565
Total nonfarm income	38,222	74,224	36,746	19,692
Gifts and inheritances	12,303	-	8,432	17,527

Financial Summary North Dakota Farm Business Management Education Program Region 4 - Western North Dakota, 2017 (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	52	7	10	15	11	6
Income Statement						
Gross cash farm income	608,771	54,816	188,755	362,133	700,467	1,351,825
Total cash farm expense	469,805	56,377	122,257	271,052	529,429	996,182
Net cash farm income	138,966	-1,561	66,498	91,081	171,038	355,643
Inventory change	-29,819	5,182	-22,518	-26,024	-65,019	-137,598
Depreciation	-49,132	-5,065	-17,894	-25,593	-64,961	-131,471
Net farm income from operations	60,015	-1,444	26,087	39,464	41,058	86,573
Gain or loss on capital sales	28	471	-480	-1,377	531	2,141
Average net farm income	60,043	-972	25,607	38,087	41,589	88,714
Median net farm income	33,337	8,921	13,677	40,459	53,684	39,130
Profitability (cost)						
Rate of return on assets	2.9 %	-8.7 %	1.9 %	3.2 %	1.8 %	1.8 %
Rate of return on equity	1.9 %	-30.7 %	1.1 %	1.3 %	-0.9 %	0.4 %
Operating profit margin	8.2 %	-32.7 %	5.7 %	10.1 %	4.6 %	5.2 %
Asset turnover rate	36.0 %	26.7 %	34.0 %	31.3 %	38.6 %	35.0 %
Liquidity & Repayment (end of ye						
Current assets	389,316	40,553	155,194	234,285	427,368	1,043,173
Current liabilities	179,256	25,812	40,202	123,325	234,647	579,577
Current ratio	2.17	1.57	3.86	1.90	1.82	1.80
Working capital	210,060	14,741	114,992	110,959	192,722	463,595
Change in working capital	14,576	3,013	76,695	28,125	-721	-137,843
Working capital to gross inc	43.0 %	25.9 %	71.8 %	34.1 %	31.3 %	39.9 %
Term debt coverage ratio	1.31	1.36	1.84	1.11	0.86	1.05
Replacement coverage ratio Term debt to EBITDA	1.04 2.68	1.28 16.62	1.42 2.31	0.93 4.08	0.77 3.03	0.73 2.28
Solvency (end of year at cost)						
Number of sole proprietors	47	6	9	15	9	6
Total assets	1,654,570	350,455	516,942	1,062,405	1,824,909	4,005,456
Total liabilities	601,639	216,827	161,715	491,360	754,545	1,200,495
Net worth	1,052,931	133,628	355,227	571,045	1,070,363	2,804,961
Net worth change	57,460	21,586	41,619	47,987	35,143	30,989
Farm debt to asset ratio	40 %	59 %	35 %	50 %	45 %	36 %
Total debt to asset ratio	36 %	62 %	31 %	46 %	41 %	30 %
Change in earned net worth %	6 %	19 %	13 %	9 %	3 %	1 %
Nonfarm Information						
Net nonfarm income	38,222	60,256	37,822	31,205	34,638	48,768
Farms reporting living expenses	18	2	2	8	2	3
Total family living expense	76,380	-	-	61,971	-	-
Crop Acres						
Total crop acres	1,735	244	580	1,199	2,353	3,904
Total crop acres owned	386	170	53	261	691	610
Total crop acres cash rented	1,226	74	445	668	1,561	3,293
Total crop acres share rented	123	-	82	270	101	-
Machinery value per crop acre	240	172	169	172	191	339

Financial Summary North Dakota Farm Business Management Education Program Region 4 - Western North Dakota, 2017 (Farms Sorted By Age of Operator)

	Avg. Of All Farms	Less Than 31	31 - 40	41 - 50	51 - 60	Over 60
Number of farms	52	12	10	8	12	10
	52	12	10	O	12	T.
Income Statement	COO 774	204.020	F 47 C70	040 207	000 040	005 740
Gross cash farm income	608,771	204,938	547,673	616,387	869,319	835,718
Total cash farm expense	469,805	157,346	420,927 126,745	451,244 165 144	676,905	659,96°
Net cash farm income	138,966 -29,819	47,592 15,638	-69,513	165,144 -29,132	192,413 2,775	175,757
Inventory change Depreciation	-49,132	-20,692	-35,515	-29,132 -48,824	-84,063	-84,337 -55,206
Net farm income from operations	60,015	42,539	21,717	87,188	111,126	36,214
Gain or loss on capital sales	28	188	261	1,606	111,120	-1,62
Average net farm income	60,043	42,727	21,978	88,794	- 111,126	34,590
Median net farm income	33,337	18,751	32,253	79,381	55,057	28,730
Wedian het fami income	33,337	10,731	32,233	79,501	33,037	20,730
Profitability (cost)			. –			
Rate of return on assets	2.9 %	7.0 %	1.7 %	4.0 %	4.0 %	0.6 %
Rate of return on equity	1.9 %	13.0 %	-4.5 %	4.1 %	3.6 %	-1.3 %
Operating profit margin	8.2 %	10.8 %	4.3 %	11.7 %	11.1 %	2.0 %
Asset turnover rate	36.0 %	65.0 %	38.0 %	34.4 %	36.3 %	30.0 %
Liquidity & Repayment (end of ye	ar)					
Current assets	389,316	111,644	271,680	605,011	638,188	356,118
Current liabilities	179,256	50,233	188,860	195,901	338,143	91,761
Current ratio	2.17	2.22	1.44	3.09	1.89	3.88
Working capital	210,060	61,411	82,821	409,110	300,044	264,357
Change in working capital	14,576	39,591	13,885	16,108	16,071	-22,537
Working capital to gross inc	43.0 %	38.0 %	18.3 %	67.0 %	35.4 %	79.0 %
Term debt coverage ratio	1.31	2.23	0.86	1.50	1.65	0.73
Replacement coverage ratio	1.04	2.12	0.81	1.04	1.16	0.6
Term debt to EBITDA	2.68	0.94	5.10	2.37	2.21	3.37
Solvency (end of year at cost)						
Number of sole proprietors	47	10	10	7	12	8
Total assets	1,654,570	327,878	1,218,588	2,072,774	2,886,182	1,644,564
Total liabilities	601,639	165,938	752,645	556,251	1,084,157	273,444
Net worth	1,052,931	161,940	465,943	1,516,523	1,802,025	1,371,121
Net worth change	57,460	30,747	11,843	124,756	106,180	15,909
Farm debt to asset ratio	40 %	49 %	62 %	31 %	41 %	21 %
Total debt to asset ratio	36 %	51 %	62 %	27 %	38 %	17 %
Change in earned net worth %	6 %	23 %	3 %	9 %	6 %	1 %
Nonfarm Information						
Net nonfarm income	38,222	18,392	55,672	23,505	44,681	48,593
Farms reporting living expenses	18	1	5	3	5	
Total family living expense	76,380	-	68,561	-	92,045	
Crop Acres						
Total crop acres	1,735	708	1,753	1,860	3,012	1,316
Total crop acres owned	386	46	243	181	3,012 846	552
Total crop acres cash rented	1,226	339	1,409	1,573	2,123	752
Total crop acres cash rented	123	323	102	106	2,123 44	12
i otal olop aolog glial C l'Ellieu	120					
Machinery value per crop acre	240	97	148	265	272	337

Financial Summary North Dakota Farm Business Management Education Program Region 4 - Western North Dakota, 2017 (Farms Sorted By Farm Type)

	Avg. Of All Farms	Сгор	Beef	Crop and Beef	Other
Number of farms	52	13	9	11	18
Income Statement					
Gross cash farm income	608,771	961,282	182,936	391,900	505,734
Total cash farm expense	469,805	711,333	130,577	285,655	387,295
Net cash farm income	138,966	249,948	52,358	106,245	118,439
Inventory change	-29,819	-36,814	-27,072	-16,005	-46,279
Depreciation	-49,132	-97,510	-12,158	-25,541	-44,712
Net farm income from operations	60,015	115,625	13,128	64,700	27,448
Gain or loss on capital sales	28	1,064	96	160	-1,107
Average net farm income	60,043	116,689	13,224	64,859	26,341
Median net farm income	33,337	41,295	13,934	53,684	12,576
Profitability (cost)					
Rate of return on assets	2.9 %	3.0 %	-0.4 %	6.1 %	1.7 %
Rate of return on equity	1.9 %	2.7 %	-3.6 %	9.9 %	-2.3 %
Operating profit margin	8.2 %	8.9 %	-1.8 %	16.3 %	4.2 %
Asset turnover rate	36.0 %	33.7 %	23.5 %	37.2 %	39.9 %
Liquidity & Repayment (end of year					
Current assets	389,316	826,865	119,470	247,235	306,894
Current liabilities	179,256	297,443	27,432	187,983	171,073
Current ratio	2.17	2.78	4.36	1.32	1.79
Working capital	210,060	529,421	92,039	59,251	135,821
Change in working capital	14,576	-29,591	53,165	44,933	7,467
Working capital to gross inc	43.0 %	56.4 %	63.6 %	17.3 %	31.0 %
Term debt coverage ratio	1.31	1.59	1.09	1.13	1.29
Replacement coverage ratio	1.04	1.02	1.01	1.10	1.03
Term debt to EBITDA	2.68	1.42	4.56	3.44	3.70
Solvency (end of year at cost)					
Number of sole proprietors	47	12	8	10	17
Total assets	1,654,570	3,501,970	580,248	943,951	1,274,097
Total liabilities	601,639	850,866	227,593	630,610	584,694
Net worth	1,052,931	2,651,105	352,656	313,341	689,402
Net worth change	57,460	107,252	22,632	82,410	24,026
Farm debt to asset ratio	40 %	27 %	34 %	68 %	52 %
Total debt to asset ratio	36 %	24 %	39 %	67 %	46 %
Change in earned net worth %	6 %	4 %	7 %	36 %	4 %
Nonfarm Information	20.000	40.000	24.040	07.007	45.040
Net nonfarm income	38,222	42,638	34,242	27,097	45,946
Farms reporting living expenses Total family living expense	18 76,380	4 -	3 -	3 -	8 70,951
• •					
Crop Acres	1 705	2 105	404	4 202	1 660
Total crop acres owned	1,735	3,125	421 175	1,383	1,668
Total crop acres owned	386 1 226	776	175	234	325
Total crop acres cash rented	1,226	2,281	166	768	1,310
Total crop acres share rented	123	69 303	80 275	381 144	33
Machinery value per crop acre	240	302	275	144	183

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 <u>net return per acre</u>. 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.

Corn on Owned Land

	Avg. Of All Farms
Number of farms	7
Acres Yield per acre (bu.) Operators share of yield % Value per bu. Total product return per acre Crop insurance per acre Other crop income per acre Gross return per acre	161.56 87.17 100.00 2.98 259.81 34.31 5.85 299.97
Direct Expenses Seed and plants Fertilizer Crop chemicals Crop insurance Fuel & oil Repairs Custom hire Marketing Operating interest Miscellaneous Total direct expenses per acre Return over direct exp per acre	68.16 63.34 17.14 13.78 11.74 35.25 7.92 0.30 5.92 0.12 223.68 76.29
Overhead Expenses Custom hire Hired labor RE & pers. property taxes Farm insurance Utilities Interest Mach & bldg depreciation Miscellaneous Total overhead expenses per acre Total dir & ovhd expenses per acre Net return per acre	1.51 3.60 4.19 5.21 4.66 20.22 41.40 7.33 88.13 311.81 -11.84
Government payments Net return with govt pmts Labor & management charge Net return over lbr & mgt	9.64 -2.20 29.84 -32.04
Cost of Production Total direct expense per bu. Total dir & ovhd exp per bu. Less govt & other income With labor & management	2.57 3.58 3.01 3.35
Net value per unit Machinery cost per acre Est. labor hours per acre	2.98 95.37 1.42

Corn on Cash Rent

	Avg. Of All Farms
Number of farms	12
Acres Yield per acre (bu.) Operators share of yield % Value per bu. Total product return per acre Crop insurance per acre Other crop income per acre Gross return per acre	330.32 94.62 100.00 3.14 297.09 16.99 3.44 317.52
Direct Expenses Seed and plants Fertilizer Crop chemicals Crop insurance Fuel & oil Repairs Custom hire Land rent Operating interest Miscellaneous Total direct expenses per acre Return over direct exp per acre	67.51 76.56 27.66 11.87 11.95 18.31 8.30 61.48 7.39 0.14 291.17 26.35
Overhead Expenses Custom hire Hired labor Machinery leases Farm insurance Utilities Dues & professional fees Interest Mach & bldg depreciation Miscellaneous Total overhead expenses per acre Total dir & ovhd expenses per acre Net return per acre	0.76 10.75 5.90 3.18 2.66 0.25 2.41 38.06 4.37 68.34 359.52 -42.00
Government payments Net return with govt pmts Labor & management charge Net return over lbr & mgt	13.47 -28.52 26.82 -55.34
Cost of Production Total direct expense per bu. Total dir & ovhd exp per bu. Less govt & other income With labor & management Net value per unit	3.08 3.80 3.44 3.72
Machinery cost per acre Est. labor hours per acre	82.77 1.26

Crop Enterprise Analysis North Dakota Farm Business Management Education Program

Region 4 - Western North Dakota, 2017 (Farms Sorted By Net Return)

Corn Silage on Cash Rent

	Avg. Of All Farms
Number of farms	5
Acres Yield per acre (ton) Operators share of yield % Value per ton Other product return per acre Total product return per acre Crop insurance per acre Gross return per acre	90.42 11.72 100.00 30.71 1.73 361.73 18.78 380.51
Direct Expenses Seed and plants Fertilizer Crop chemicals Crop insurance Fuel & oil Repairs Custom hire Land rent Operating interest Total direct expenses per acre Return over direct exp per acre	46.66 68.13 13.96 3.57 15.99 19.97 37.96 35.74 9.57 251.55 128.96
Overhead Expenses Custom hire Hired labor Building leases Farm insurance Utilities Dues & professional fees Interest Mach & bldg depreciation Miscellaneous Total overhead expenses per acre Total dir & ovhd expenses per acre Net return per acre	15.93 8.95 2.95 2.30 2.03 0.31 4.44 17.90 2.26 57.08 308.63 71.88
Government payments Net return with govt pmts Labor & management charge Net return over lbr & mgt	16.23 88.11 26.95 61.16
Cost of Production Total direct expense per ton Total dir & ovhd exp per ton Less govt & other income With labor & management	21.46 26.33 23.19 25.49
Net value per unit Machinery cost per acre Est. labor hours per acre	30.71 111.83 2.30

Hay, Mixed Alfalfa/Grass on Owned Land

	Avg. Of All Farms
Number of farms	11
Acres Yield per acre (ton) Operators share of yield % Value per ton Other product return per acre Total product return per acre Crop insurance per acre Gross return per acre	203.87 0.51 100.00 86.30 0.89 44.97 10.73 55.70
Direct Expenses Seed and plants Fertilizer Crop chemicals Crop insurance Fuel & oil Repairs Custom hire Operating interest Total direct expenses per acre Return over direct exp per acre	0.39 4.37 0.69 1.88 3.73 6.90 2.59 1.03 21.58 34.12
Overhead Expenses Custom hire Hired labor Machinery leases RE & pers. property taxes Farm insurance Utilities Dues & professional fees Interest Mach & bldg depreciation Miscellaneous Total overhead expenses per acre Total dir & ovhd expenses per acre Net return per acre	0.16 2.98 0.18 4.69 2.57 1.38 0.24 11.58 10.75 2.13 36.66 58.25 -2.54
Government payments Net return with govt pmts Labor & management charge Net return over lbr & mgt	3.82 1.28 8.81 -7.53
Cost of Production Total direct expense per ton Total dir & ovhd exp per ton Less govt & other income With labor & management	42.26 114.03 83.80 101.05
Net value per unit Machinery cost per acre Est. labor hours per acre	86.30 24.98 0.53

Hay, Mixed Alfalfa/Grass on Cash Rent

	Avg. Of All Farms
Number of farms	13
Acres Yield per acre (ton) Operators share of yield % Value per ton Other product return per acre Total product return per acre Crop insurance per acre Gross return per acre	196.04 0.64 100.00 66.04 2.38 44.72 4.09 48.81
Direct Expenses Fertilizer Crop insurance Fuel & oil Repairs Custom hire Land rent Operating interest Miscellaneous Total direct expenses per acre Return over direct exp per acre	1.97 1.07 4.36 7.11 0.32 19.26 1.88 0.25 36.23 12.59
Overhead Expenses Custom hire Hired labor Farm insurance Utilities Dues & professional fees Interest Mach & bldg depreciation Miscellaneous Total overhead expenses per acre Total dir & ovhd expenses per acre Net return per acre	0.67 3.33 2.55 1.94 0.53 1.84 8.90 1.92 21.67 57.90 -9.08
Government payments Net return with govt pmts Labor & management charge Net return over lbr & mgt	6.43 -2.65 9.09 -11.74
Cost of Production Total direct expense per ton Total dir & ovhd exp per ton Less govt & other income With labor & management Net value per unit Machinery cost per acre Est. labor hours per acre	56.50 90.30 70.17 84.34 66.04 23.07 0.62

Hay, Small Grain on Owned Land

	Avg. Of All Farms
Number of farms	5
Acres Yield per acre (ton) Operators share of yield % Value per ton Other product return per acre Total product return per acre Crop insurance per acre Gross return per acre	123.44 1.50 100.00 69.07 1.24 104.70 85.68 190.38
Direct Expenses Seed and plants Fertilizer Crop chemicals Crop insurance Fuel & oil Repairs Custom hire Operating interest Total direct expenses per acre Return over direct exp per acre	12.92 30.95 8.71 12.07 8.67 12.90 0.68 2.77 89.67 100.71
Overhead Expenses Custom hire Hired labor Building leases RE & pers. property taxes Farm insurance Utilities Dues & professional fees Interest Mach & bldg depreciation Miscellaneous Total overhead expenses per acre Total dir & ovhd expenses per acre Net return per acre	0.85 4.31 0.14 3.47 1.86 1.60 0.21 7.94 13.55 5.45 39.38 129.06 61.32
Government payments Net return with govt pmts Labor & management charge Net return over lbr & mgt	9.47 70.79 13.34 57.45
Cost of Production Total direct expense per ton Total dir & ovhd exp per ton Less govt & other income With labor & management	59.86 86.15 21.81 30.71
Net value per unit Machinery cost per acre Est. labor hours per acre	69.07 37.14 0.92

Crop Enterprise Analysis North Dakota Farm Business Management Education Program Region 4 - Western North Dakota, 2017

(Farms Sorted By Net Return)

Hay, Small Grain on Cash Rent

	Avg. Of All Farms
Number of farms	7
Acres Yield per acre (ton) Operators share of yield % Value per ton Other product return per acre Total product return per acre Crop insurance per acre Gross return per acre	115.01 0.88 100.00 73.74 2.55 67.81 43.90 111.71
Direct Expenses Seed and plants Fertilizer Crop chemicals Crop insurance Fuel & oil Repairs Custom hire Land rent Operating interest Total direct expenses per acre Return over direct exp per acre	8.22 23.48 12.19 7.43 7.49 13.88 3.49 36.76 3.54 116.47 -4.76
Overhead Expenses Custom hire Hired labor Building leases Farm insurance Utilities Dues & professional fees Interest Mach & bldg depreciation Miscellaneous Total overhead expenses per acre Total dir & ovhd expenses per acre Net return per acre	3.18 4.36 0.88 2.18 2.44 0.69 3.89 12.86 3.77 34.24 150.72 -39.01
Government payments Net return with govt pmts Labor & management charge Net return over lbr & mgt	13.31 -25.70 15.36 -41.06
Cost of Production Total direct expense per ton Total dir & ovhd exp per ton Less govt & other income With labor & management	131.61 170.31 102.78 120.13
Net value per unit Machinery cost per acre Est. labor hours per acre	73.74 44.20 1.15

Pasture on Owned Land

	Avg. Of All Farms
Number of farms	16
Acres Yield per acre (aum)	972.33 0.56
Operators share of yield % Value per aum	100.00 22.61
Total product return per acre Crop insurance per acre Gross return per acre	12.72 1.77 14.49
Direct Expenses Repairs Miscellaneous Total direct expenses per acre Return over direct exp per acre	0.53 0.68 1.21 13.28
Overhead Expenses RE & pers. property taxes Interest Mach & bldg depreciation Miscellaneous Total overhead expenses per acre Total dir & ovhd expenses per acre Net return per acre	1.52 5.60 0.56 0.67 8.35 9.56 4.93

Pasture on Cash Rent

	Avg. Of All Farms
Number of farms	22
Acres Yield per acre (aum) Operators share of yield % Value per aum Total product return per acre Crop insurance per acre Gross return per acre	1,287.61 0.63 100.00 23.11 14.50 0.94 15.44
Direct Expenses Repairs Land rent Miscellaneous Total direct expenses per acre Return over direct exp per acre	0.48 14.73 0.72 15.93 -0.48
Overhead Expenses Mach & bldg depreciation Miscellaneous Total overhead expenses per acre Total dir & ovhd expenses per acre Net return per acre	0.44 0.71 1.15 17.08 -1.63
Government payments Net return with govt pmts Labor & management charge Net return over lbr & mgt	0.38 -1.25 0.58 -1.83

Peas, Field on Cash Rent

	Avg. Of <u>All Farms</u>
Number of farms	5
Acres Yield per acre (bu.) Operators share of yield % Value per bu. Total product return per acre Crop insurance per acre Other crop income per acre Gross return per acre	412.50 26.13 100.00 6.55 171.26 14.94 0.89 187.10
Direct Expenses Seed and plants Fertilizer Crop chemicals Crop insurance Fuel & oil Repairs Custom hire Land rent Machinery leases Operating interest Miscellaneous Total direct expenses per acre Return over direct exp per acre	19.17 5.99 29.09 8.21 7.28 14.40 3.77 29.30 0.38 1.20 0.23 119.02 68.08
Overhead Expenses Custom hire Hired labor Machinery leases Farm insurance Utilities Dues & professional fees Interest Mach & bldg depreciation Miscellaneous Total overhead expenses per acre Total dir & ovhd expenses per acre Net return per acre	0.11 6.99 2.05 3.54 1.20 0.18 1.90 27.63 1.13 44.73 163.75 23.35
Government payments Net return with govt pmts Labor & management charge Net return over lbr & mgt	30.12 53.47 17.42 36.05
Cost of Production Total direct expense per bu. Total dir & ovhd exp per bu. Less govt & other income With labor & management	4.56 6.27 4.51 5.18
Net value per unit Machinery cost per acre Est. labor hours per acre	6.55 55.29 0.99

Soybeans on Owned Land

	Avg. Of All Farms
Number of farms	5
Acres Yield per acre (bu.) Operators share of yield % Value per bu. Other product return per acre Total product return per acre Crop insurance per acre Gross return per acre	152.90 26.34 100.00 8.48 0.07 223.55 8.11 231.66
Direct Expenses Seed and plants Fertilizer Crop chemicals Crop insurance Fuel & oil Repairs Custom hire Marketing Operating interest Total direct expenses per acre Return over direct exp per acre	60.21 0.96 17.74 6.58 7.97 27.22 7.35 0.53 4.86 133.41 98.25
Overhead Expenses Hired labor Machinery leases RE & pers. property taxes Farm insurance Utilities Dues & professional fees Interest Mach & bldg depreciation Miscellaneous Total overhead expenses per acre Total dir & ovhd expenses per acre Net return per acre	5.94 0.31 4.09 4.75 5.11 0.10 22.02 30.32 3.49 76.12 209.53 22.13
Government payments Net return with govt pmts Labor & management charge Net return over lbr & mgt	9.70 31.83 20.65 11.18
Cost of Production Total direct expense per bu. Total dir & ovhd exp per bu. Less govt & other income With labor & management	5.06 7.95 7.28 8.06
Net value per unit Machinery cost per acre Est. labor hours per acre	8.48 72.69 0.95

Soybeans on Cash Rent

	Avg. Of All Farms
Number of farms	11
Acres Yield per acre (bu.) Operators share of yield % Value per bu. Total product return per acre Crop insurance per acre Gross return per acre	565.07 29.44 100.00 8.84 260.35 8.04 268.39
Direct Expenses Seed and plants Fertilizer Crop chemicals Crop insurance Fuel & oil Repairs Custom hire Land rent Machinery leases Operating interest Miscellaneous Total direct expenses per acre Return over direct exp per acre	59.70 17.32 15.54 11.86 10.36 17.86 13.84 57.83 0.12 4.48 0.09 209.00 59.40
Overhead Expenses Hired labor Machinery leases Farm insurance Utilities Dues & professional fees Interest Mach & bldg depreciation Miscellaneous Total overhead expenses per acre Total dir & ovhd expenses per acre Net return per acre	8.07 5.90 2.70 2.71 0.12 2.65 25.24 2.61 50.00 259.00 9.39
Government payments Net return with govt pmts Labor & management charge Net return over lbr & mgt	14.49 23.89 19.42 4.46
Cost of Production Total direct expense per bu. Total dir & ovhd exp per bu. Less govt & other income With labor & management	7.10 8.80 8.03 8.69
Net value per unit Machinery cost per acre Est. labor hours per acre	8.84 73.45 0.88

Sunflowers on Cash Rent

	Avg. Of All Farms
Number of farms	9
Acres Yield per acre (cwt.) Operators share of yield % Value per cwt. Total product return per acre Crop insurance per acre Gross return per acre	521.70 12.96 100.00 17.59 228.00 64.26 292.25
Direct Expenses Seed and plants Fertilizer Crop chemicals Crop insurance Fuel & oil Repairs Custom hire Land rent Operating interest Miscellaneous Total direct expenses per acre Return over direct exp per acre	33.75 36.64 38.52 10.70 11.02 15.52 10.80 49.87 6.78 0.02 213.63 78.63
Overhead Expenses Custom hire Hired labor Machinery leases Building leases Farm insurance Utilities Dues & professional fees Interest Mach & bldg depreciation Miscellaneous Total overhead expenses per acre Total dir & ovhd expenses per acre Net return per acre	0.61 7.35 4.55 0.35 2.94 2.36 0.10 3.03 21.09 1.59 43.96 257.59 34.66
Government payments Net return with govt pmts Labor & management charge Net return over lbr & mgt	12.67 47.33 17.99 29.35
Cost of Production Total direct expense per cwt. Total dir & ovhd exp per cwt. Less govt & other income With labor & management	16.48 19.87 13.94 15.33
Net value per unit Machinery cost per acre Est. labor hours per acre	17.59 64.79 0.91

Wheat, Spring on Owned Land

	Avg. Of All Farms
Number of farms	19
Acres Yield per acre (bu.) Operators share of yield % Value per bu. Other product return per acre Total product return per acre Crop insurance per acre Gross return per acre	443.84 21.81 100.00 6.00 5.09 135.97 53.49 189.46
Direct Expenses Seed and plants Fertilizer Crop chemicals Crop insurance Fuel & oil Repairs Custom hire Operating interest Miscellaneous Total direct expenses per acre Return over direct exp per acre	11.41 40.88 23.94 10.42 7.71 15.67 3.05 2.90 0.06 116.03 73.42
Overhead Expenses Custom hire Hired labor Machinery leases Building leases RE & pers. property taxes Farm insurance Utilities Dues & professional fees Interest Mach & bldg depreciation Miscellaneous Total overhead expenses per acre Total dir & ovhd expenses per acre Net return per acre	0.47 5.18 1.13 0.19 5.12 3.54 2.25 0.36 18.13 31.66 4.62 72.64 188.68 0.78
Government payments Net return with govt pmts Labor & management charge Net return over lbr & mgt	18.09 18.87 16.62 2.25
Cost of Production Total direct expense per bu. Total dir & ovhd exp per bu. Less govt & other income With labor & management	5.32 8.65 5.14 5.90
Net value per unit Machinery cost per acre Est. labor hours per acre	6.00 58.65 0.99

Wheat, Spring on Cash Rent

	Avg. Of <u>All Farms</u>
Number of farms	21
Acres Yield per acre (bu.) Operators share of yield % Value per bu. Other product return per acre Total product return per acre Crop insurance per acre Other crop income per acre Gross return per acre	820.94 20.93 100.00 6.00 3.21 128.89 66.43 1.60 196.93
Direct Expenses Seed and plants Fertilizer Crop chemicals Crop insurance Fuel & oil Repairs Custom hire Land rent Operating interest Miscellaneous Total direct expenses per acre Return over direct exp per acre	14.44 44.85 26.63 10.17 7.44 12.42 4.16 42.94 4.34 0.09 167.47 29.46
Overhead Expenses Custom hire Hired labor Machinery leases Building leases Farm insurance Utilities Dues & professional fees Interest Mach & bldg depreciation Miscellaneous Total overhead expenses per acre Total dir & ovhd expenses per acre Net return per acre	0.54 4.78 1.88 0.38 3.18 1.92 0.35 2.48 21.28 2.42 39.22 206.69 -9.76
Government payments Net return with govt pmts Labor & management charge Net return over lbr & mgt	14.23 4.47 15.61 -11.14
Cost of Production Total direct expense per bu. Total dir & ovhd exp per bu. Less govt & other income With labor & management	8.00 9.87 5.79 6.54
Net value per unit Machinery cost per acre Est. labor hours per acre	6.00 48.65 0.87

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.

Beef Cow-Calf -- Average Per Cwt. Produced

	Avg. Of All Farms	
Number of farms		18
Beef Calves sold (lb) Transferred out (lb) Cull sales Other income Purchased Transferred in Inventory change Gross margin	Quantity 54.05 45.95	Value 89.27 74.95 53.24 0.69 -18.93 -7.71 -37.39 165.11
Pirect Expenses Protein Vit Minerals (lb.) Creep / Starter (lb.) Complete Ration (lb.) Corn Silage (lb.) Hay, Alfalfa (lb.) Hay, Grass (lb.) Pasture (aum) Other feed stuffs (lb) Veterinary Supplies Fuel & oil Repairs Custom hire Marketing Operating interest Total direct expenses Return over direct expense	26.99 3.76 1.91 214.18 114.21 984.93 1.35 56.20	5.77 0.39 0.28 3.30 5.07 30.07 31.71 3.80 5.38 1.37 4.69 7.72 4.36 2.58 2.01 108.50 56.61
Overhead Expenses Hired labor Machinery leases Farm insurance Utilities Interest Mach & bldg depreciation Miscellaneous Total overhead expenses Total dir & ovhd expenses Net return		2.48 0.16 2.96 2.15 2.16 8.08 3.69 21.67 130.17 34.94
Labor & management charge Net return over lbr & mgt		16.74 18.19
Cost of Production Per Cwt. Produced Total direct expense per unit Total dir& ovhd expense per unit With other revenue adjustments With labor and management		108.50 130.17 131.20 147.94
Est. labor hours per unit		1.06
Other Information Number of cows Pregnancy percentage Pregnancy loss percentage Culling percentage Calving percentage Weaning percentage Weaning percentage Calves sold per cow Calf death loss percent Cow death loss percent Average weaning weight Lb. weaned/exposed female Feed cost per cow Avg wgt/ Beef Calves sold Avg price / cwt.		138.8 98.1 5.2 25.0 93.1 90.1 0.94 3.3 1.8 562 506 419.10 571 165.18

Beef Cow-Calf -- Average Per Cow

	Avg. Of All Farms	
Number of farms		18
Beef Calves sold (lb) Transferred out (lb) Cull sales Other income Purchased Transferred in Inventory change Gross margin	Quantity 281.8 239.6	Value 465.41 390.73 277.54 3.60 -98.68 -40.19 -194.92 860.76
Direct Expenses Protein Vit Minerals (lb.) Creep / Starter (lb.) Complete Ration (lb.) Corn Silage (lb.) Hay, Alfalfa (lb.) Hay, Grass (lb.) Pasture (aum) Other feed stuffs (lb) Veterinary Supplies Fuel & oil Repairs Custom hire Marketing Operating interest Total direct expenses Return over direct expense	140.7 19.6 10.0 1,116.6 595.4 5,134.8 7.0 293.0	30.09 2.05 1.47 17.23 26.44 156.74 165.30 19.79 28.07 7.13 24.43 40.27 22.72 13.47 10.47 565.66 295.11
Overhead Expenses Hired labor Machinery leases Farm insurance Utilities Interest Mach & bldg depreciation Miscellaneous Total overhead expenses Total dir & ovhd expenses Net return		12.94 0.84 15.44 11.19 11.24 42.10 19.22 112.96 678.62 182.14
Labor & management charge Net return over lbr & mgt		87.29 94.85
Cost of Production Per Cwt. Produced Total direct expense per unit Total dir& ovhd expense per unit With other revenue adjustments With labor and management		108.50 130.17 131.20 147.94
Est. labor hours per unit		5.53
Other Information Number of cows Pregnancy percentage Pregnancy loss percentage Culling percentage Calving percentage Weaning percentage Weaning percentage Calves sold per cow Calf death loss percent Cow death loss percent Average weaning weight Lb. weaned/exposed female Feed cost per cow Avg wgt/ Beef Calves sold Avg price / cwt.		138.8 98.1 5.2 25.0 93.1 90.1 0.94 3.3 1.8 562 506 419.10 571 165.18

Beef Replacement Heifers -- Average Per Head

	Avg. Of All Farms	
Number of farms		12
Beef Replace sold (hd) Transferred out (hd) Cull sales (hd)	Quantity 0.64 0.83 0.03	Value 737.38 1,132.96 34.27
Other income Purchased (hd) Transferred in (hd) Inventory change (hd) Gross margin	0.44 0.40 -0.67	-399.99 -327.81 -474.39 750.37
Direct Expenses Protein Vit Minerals (lb.) Corn (bu.) Corn Silage (lb.) Hay, Grass (lb.) Pasture (aum) DDGS, dry (lb.) Hay (lb.) Other feed stuffs (lb) Veterinary Supplies Fuel & oil Repairs Custom hire Marketing Operating interest Total direct expenses Return over direct expense	89.97 4.50 2,654.83 3,382.61 4.52 79.09 87.88 279.40	30.93 13.55 42.65 92.81 103.95 5.83 2.64 11.13 14.76 3.45 13.50 11.46 18.91 8.93 10.72 385.23 365.13
Overhead Expenses Custom hire Hired labor Farm insurance Utilities Interest Mach & bldg depreciation Miscellaneous Total overhead expenses Total dir & ovhd expenses Net return		3.74 2.89 5.68 5.90 5.32 25.52 6.68 55.73 440.96 309.41
Labor & management charge Net return over lbr & mgt		41.44 267.96
Est. labor hours per unit		2.93
Other Information No. purchased or trans in Number sold or trans out Average number of head Percentage death loss Feed cost per average head Feed cost/head sold/trans		24 42 28 0.4 303.49 205.56

Beef Replacement Heifers -- Average Per Head Sold/Trans

	Avg. Of All Farms	
Number of farms		12
Beef Replace sold (hd) Transferred out (hd) Cull sales (hd) Othories	Quantity 0.4 0.6 0.0	Value 499.44 767.38 23.21
Other income Purchased (hd) Transferred in (hd) Inventory change (hd) Gross margin	0.3 0.3 -0.5	-270.92 -222.03 -321.31 508.24
Direct Expenses Protein Vit Minerals (lb.) Corn (bu.) Corn Silage (lb.) Hay, Grass (lb.) Pasture (aum) DDGS, dry (lb.) Hay (lb.) Other feed stuffs (lb) Breeding fees Veterinary Supplies Fuel & oil Repairs Custom hire Marketing Operating interest Total direct expenses Return over direct expense	60.9 3.0 1,798.2 2,291.1 3.1 53.6 59.5 189.2	20.95 9.18 28.89 62.86 70.41 3.95 1.79 7.54 0.50 10.00 1.84 9.14 7.77 12.81 6.05 7.26 260.93 247.31
Overhead Expenses Custom hire Hired labor Farm insurance Utilities Interest Mach & bldg depreciation Miscellaneous Total overhead expenses Total dir & ovhd expenses Net return		2.53 1.96 3.85 4.00 3.60 17.29 4.52 37.75 298.67 209.57
Labor & management charge Net return over lbr & mgt		28.07 181.50
Est. labor hours per unit		1.99
Other Information No. purchased or trans in Number sold or trans out Average number of head Percentage death loss Feed cost per average head Feed cost/head sold/trans		24 42 28 0.4 303.49 205.56

Beef Backgrounding -- Average Per Cwt. Produced

	Avg. Of All Farms	
Number of farms		7
Backgnd Beef sold (lb) Transferred out (lb) Other income Transferred in (lb) Inventory change (lb) Gross margin	Quantity 495.15 216.55 -589.25 -27.86	Value 725.66 382.43 4.40 -985.31 22.44 149.62
Direct Expenses Protein Vit Minerals (lb.) Creep / Starter (lb.) Corn (bu.) Corn Silage (lb.) Hay, Alfalfa (lb.) Hay, Grass (lb.) Oats (bu.) Straw (lb.) Other feed stuffs (lb) Veterinary Supplies Fuel & oil Repairs Custom hire Marketing Operating interest Total direct expenses Return over direct expense	24.43 38.13 1.17 155.12 25.53 1,914.06 2.68 35.26 0.05	9.22 2.87 3.31 2.33 0.89 50.30 5.75 0.29 0.19 5.37 0.27 6.19 6.18 6.58 18.32 3.00 121.05 28.58
Overhead Expenses Hired labor Farm insurance Utilities Interest Mach & bldg depreciation Miscellaneous Total overhead expenses Total dir & ovhd expenses Net return		2.93 2.40 3.09 3.21 8.09 5.04 24.76 145.80 3.82
Labor & management charge Net return over lbr & mgt		17.21 -13.40
Cost of Production Per Cwt. Produced Total direct expense per unit Total dir& ovhd expense per unit With other revenue adjustments With labor and management		151.68 155.16 155.16 157.58
Est. labor hours per unit		1.17
Other Information No. purchased or trans in Number sold or trans out Percentage death loss Avg. daily gain (lb.) Lb. of conc / lb. of gain Lb. of feed / lb. of gain Feed cost per cwt. of gain Feed cost per head Avg wgt / Backgnd Beef sold Avg sales price / cwt.		102 110 0.2 1.07 2.17 22.43 75.13 60.27 625 146.55

Beef Backgrounding -- Average Per Head

	Avg. Of All Farms	
Number of farms		7
Backgnd Beef sold (lb) Transferred out (lb) Other income Transferred in (lb) Inventory change (lb) Gross margin	Quantity 397.2 173.7 -472.7 -22.3	Value 582.12 306.79 3.53 -790.41 18.00 120.03
Direct Expenses Protein Vit Minerals (lb.) Creep / Starter (lb.) Corn (bu.) Corn Silage (lb.) Hay, Alfalfa (lb.) Hay, Grass (lb.) Oats (bu.) Other feed stuffs (lb) Veterinary Supplies Fuel & oil Repairs Custom hire Marketing Operating interest Total direct expenses Return over direct expense	19.6 30.6 0.9 124.4 20.5 1,535.5 2.2 28.3	7.39 2.30 2.65 1.87 0.72 40.35 4.61 0.38 4.31 0.22 4.97 4.96 5.28 14.69 2.41 97.10 22.92
Overhead Expenses Hired labor Farm insurance Utilities Interest Mach & bldg depreciation Miscellaneous Total overhead expenses Total dir & ovhd expenses Net return		2.35 1.92 2.48 2.57 6.49 4.04 19.86 116.96 3.06
Labor & management charge Net return over lbr & mgt		13.81 -10.75
Cost of Production Per Cwt. Produced Total direct expense per unit Total dir& ovhd expense per unit With other revenue adjustments With labor and management		151.68 155.16 155.16 157.58
Est. labor hours per unit		0.94
Other Information No. purchased or trans in Number sold or trans out Percentage death loss Avg. daily gain (lb.) Lb. of conc / lb. of gain Lb. of feed / lb. of gain Feed cost per cwt. of gain Feed cost per head Avg wgt / Backgnd Beef sold Avg sales price / cwt.		102 110 0.2 1.07 2.17 22.43 75.13 60.27 625 146.55

Figure 1. Gross Cash Income Per Farm

N.D. Farm Business Management Education Program - West Region

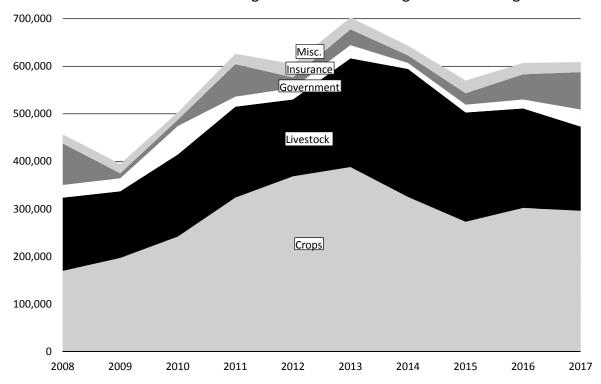


Figure 2. Net Farm Income (Accrual) Per Farm

N.D. Farm Business Management Education Program - West Region

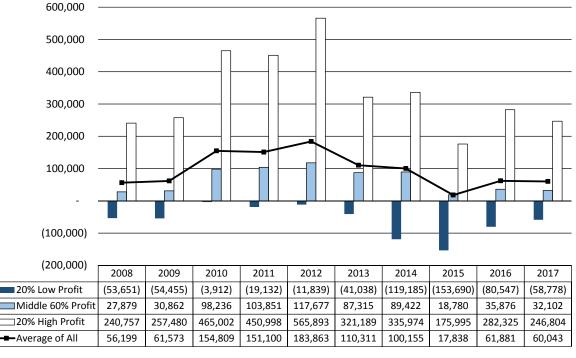


Figure 3. Financial Efficiency Measures (As Percent of Gross Revenue)

N.D. Farm Business Management Education Program – West Region

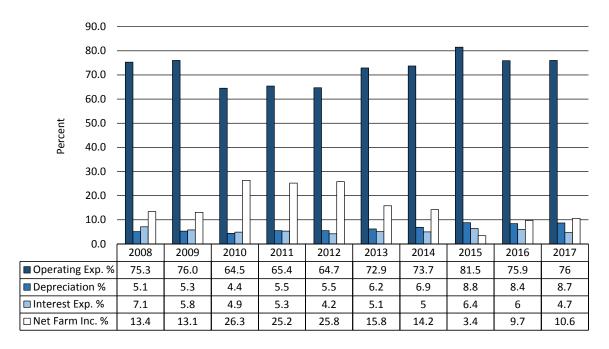


Figure 4. Profitability Measures Per Farm

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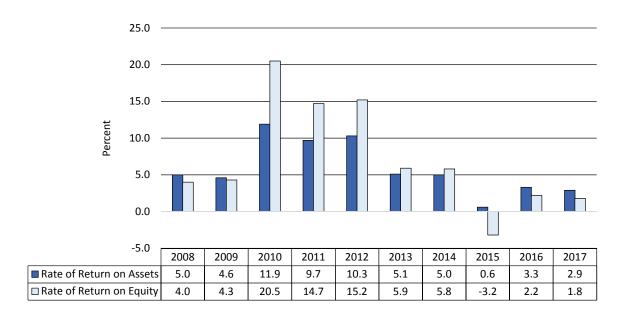


Figure 5. Assets and Liabilities Per Farm, 2017

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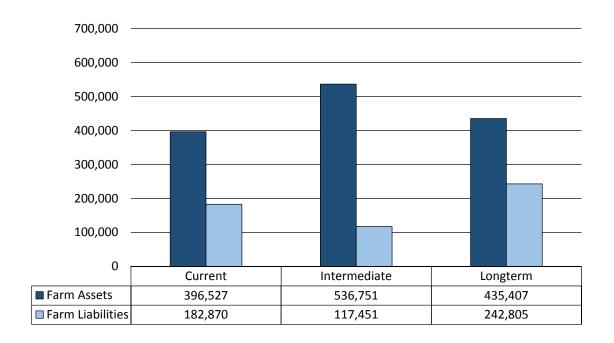


Figure 6. Total Farm Assets and Liabilities

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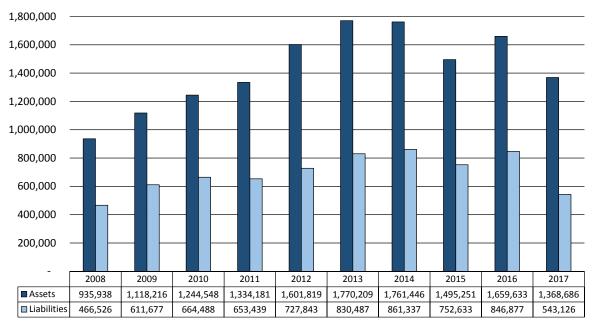


Figure 7. Household and Personal Expenses

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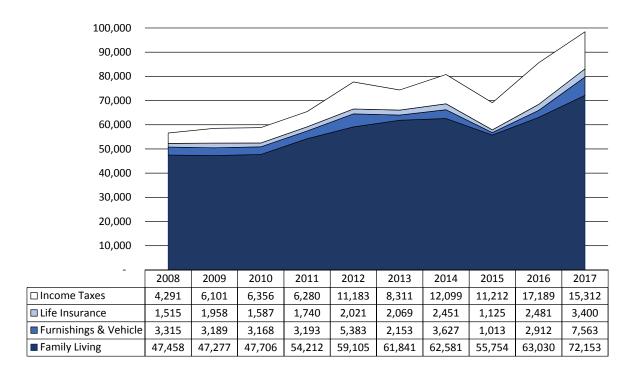


Figure 8. Crop Acreage Per Farm

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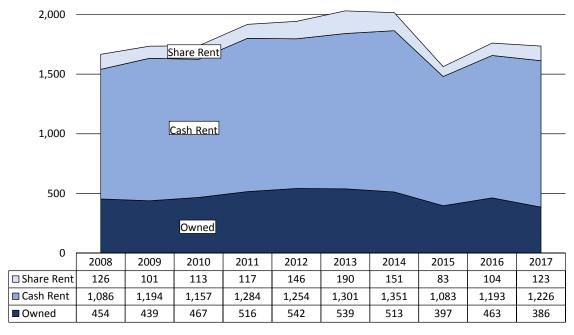


Figure 9. Spring Wheat Costs Per Acre

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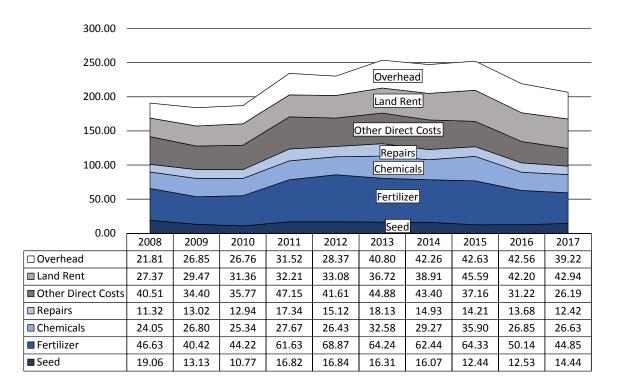


Figure 10. Average Net Return Per Beef Cow

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