

Minnesota and North Dakota
Farm Business Management Education

Red River Valley 2014 Report



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Minnesota Farm Business Management Education
and
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RED RIVER VALLEY AVERAGES
2014 ANNUAL REPORT

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2014 Red River Valley Report
Minnesota and North Dakota Farm Business Management Education

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INTRODUCTION

This report summarizes the individual farm records of farms in the Red River Valley that are enrolled in Farm Management Education programs. The current financial status of farm operators and net returns from each crop enterprise is reported. In addition to the average of all farms, the averages for the high and low net income groups are also presented. To insure anonymity, only averages of five or more farms are reported. Regional averages reports can be used by producers for comparison purposes to identify 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 data contained in this report should also be useful to instructors, extension agents, bankers and agricultural consultants.

The Red River Valley averages reports are divided into two major categories. Explanatory notes precede the farm operators' reports and the crop reports.

The 2014 Red River Valley Report is based upon data generated by individual farm analysis completed by farm/ranch families enrolled in the Farm and Ranch Business Management Education programs in Minnesota and North Dakota. The tables in this report were created using FINPACK and RankEm Central copyrighted software of the Center for Farm Financial Management, University of Minnesota.

You may contact Ron Dvergsten, Northland Community and Technical College, Highway 1 East, Thief River Falls, MN 56701, phone: (218) 683-8747, to order a copy of this report. This report and regional reports for north central, south central and western North Dakota can be ordered for \$5 per copy from Farm Business Management, PO Box 6022, Bismarck, ND 58506-6022, phone: (701) 224-8390. A state average book for North Dakota farms is also available. The reports are available online at www.ndfarmmanagement.com.

EXPLANATORY NOTES FOR THE FARM OPERATORS' REPORTS

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

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

Farm Income Statement

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

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

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

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

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

Inventory Changes

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

Depreciation

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

Profitability Measures

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

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

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

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

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

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

"Value of operator's labor and management" is an opportunity cost for unpaid operator's labor and management that is used in the calculation of several financial performance measures. A value of \$20,000 per full time operator plus 5% of value of farm production is used.

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

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

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

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

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

Liquidity & Repayment Capacity Measures

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

Balance Sheets

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

Statement of Cash Flows

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

Financial Standards Measures

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

Liquidity

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

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

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

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

Solvency

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

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

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

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

Profitability

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

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

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

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

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

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

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

Repayment Capacity

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

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

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

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

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

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

Efficiency

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

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

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

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

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

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

Crop Production and Marketing Summary

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

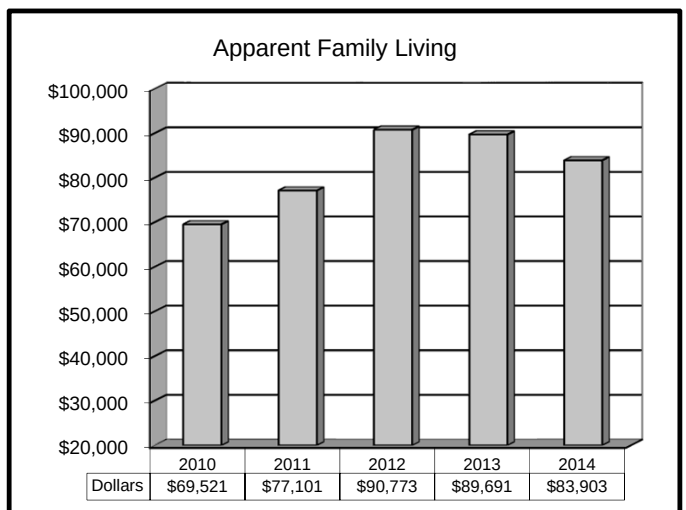
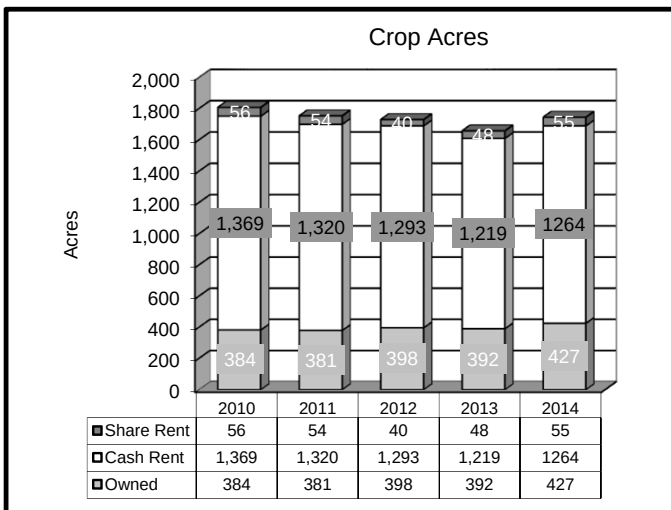
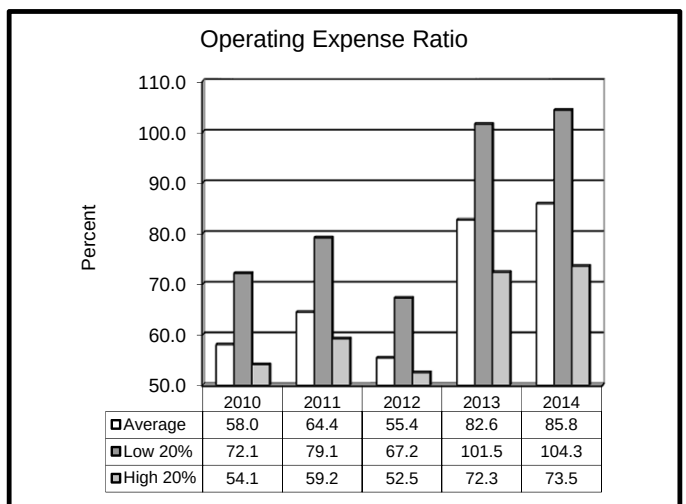
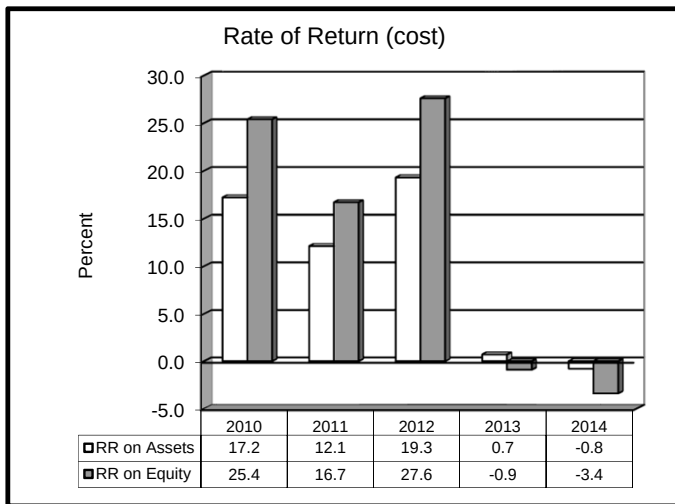
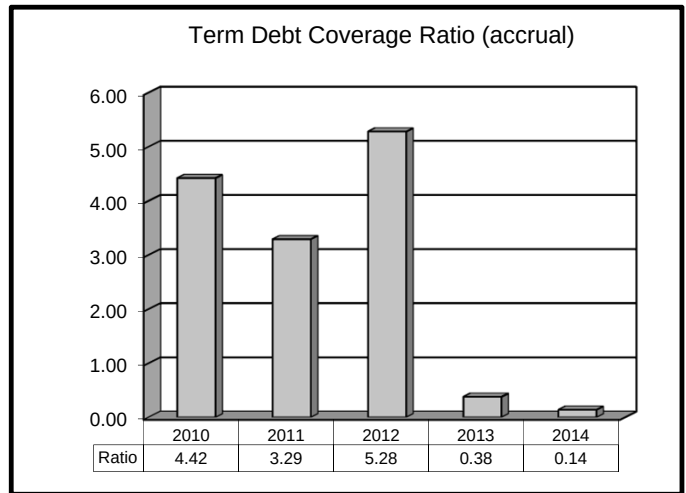
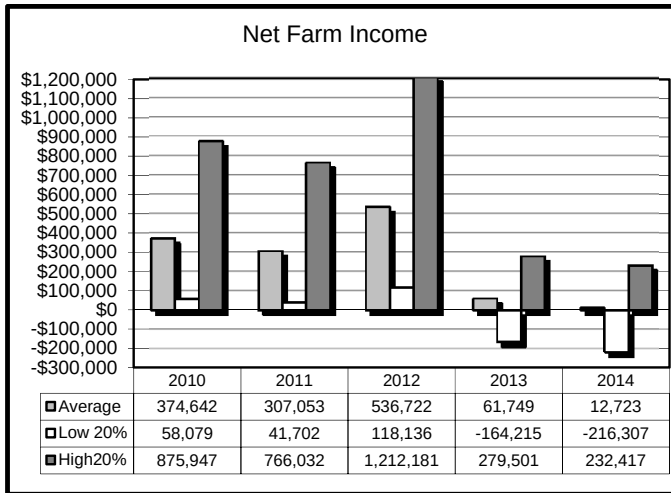
Operator and Labor Information

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

Nonfarm Summary

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

Five Year Trend of Financial Measures Red River Valley Farm Business Management Education



Farm Income Statement
Minnesota and North Dakota Business Management Education
Red River Valley, 2014
(Farms Sorted By Net Farm Income)

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	231	46	46	47
Cash Farm Income				
Barley	1,570	-	-	7,715
Beans, Black Turtle	5,200	6,427	-	16,828
Beans, Navy	1,927	1,887	2,088	2,177
Beans, Pinto	6,856	2,956	-	9,434
Canola	135	-	680	-
Corn	232,410	361,927	117,695	304,313
Corn Silage	43	217	-	-
Hay, Alfalfa	1,427	204	184	3,170
Hay, Mixed Alfalfa/Grass	837	-	-	-
Oats	72	-	-	355
Potatoes	11,645	-	-	57,234
Soybeans	279,050	370,041	203,994	326,881
Straw	2,756	-	35	-
Sugar Beets	160,778	157,179	116,721	266,247
Sunflowers	1,284	2,485	-	2,966
Wheat, Durum	930	-	-	3,939
Wheat, Spring	119,619	125,546	107,273	150,717
Wheat, Winter	287	-	-	-
Soybeans, Organic	402	-	-	-
Soybeans, Natto	310	-	1,556	-
Soybeans, Food	7,810	5,570	4,807	26,172
Corn, Organic	444	-	-	-
Miscellaneous crop income	15	-	-	38
Beef Cow-Calf, Beef Calves	453	-	-	-
Beef Replacement Heifers	29	-	143	-
Beef Backgrounding	408	174	-	-
Beef Finishing	20,095	-	85	31,399
Hogs, Farrow To Finish, Raised Hog	3,464	-	-	17,023
Beef Finish Cull Cows	533	-	-	-
Cull breeding livestock	115	-	-	-
Misc. livestock income	39	178	-	-
Crop government payments	7,568	5,404	2,606	13,223
CRP payments	1,294	749	1,378	1,699
Other government payments	8,220	11,407	3,375	11,824
Custom work income	10,084	10,872	5,261	18,407
Patronage dividends, cash	17,299	20,405	10,178	25,841
Crop insurance income	66,308	105,436	33,238	81,815
Property insurance income	3,958	2,947	2,141	2,627
Sale of resale items	1,988	7,802	489	258
Other farm income	37,215	31,377	27,152	87,627
Gross Cash Farm Income	1,014,875	1,231,190	641,079	1,469,930

Farm Income Statement (continued)
Minnesota and North Dakota Business Management Education
Red River Valley, 2014
(Farms Sorted By Net Farm Income)

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	231	46	46	47
Cash Farm Expense				
Seed	115,505	137,889	82,512	156,252
Fertilizer	112,281	155,616	69,808	156,619
Crop chemicals	54,622	70,672	36,700	78,539
Crop insurance	37,300	50,044	24,369	51,420
Drying expense	8,180	10,372	2,967	11,938
Storage	1,165	1,743	114	2,188
Irrigation energy	411	-	-	2,021
Crop custom hire	6,657	5,288	4,346	8,442
Hauling and trucking	1,300	256	1,433	2,367
Crop marketing	809	1,158	611	1,120
Crop miscellaneous	3,838	3,763	4,400	6,132
Consultants	3,051	4,469	2,942	3,153
Feeder livestock purchase	21,538	-	-	24,184
Purchased feed	4,524	474	-	10,446
Breeding fees	26	-	-	125
Veterinary	367	138	48	326
Supplies	127	50	-	333
Livestock marketing	139	-	-	643
Interest	36,292	46,305	25,551	50,567
CCC buyback	2,335	-	4,475	2,045
Fuel & oil	52,350	72,397	32,520	69,447
Repairs	65,901	95,912	37,364	86,242
Custom hire	5,709	4,776	7,449	6,843
Hired labor	40,760	64,127	16,687	66,643
Land rent	165,720	231,713	90,711	217,683
Stock/quota lease	5,995	7,681	6,121	7,049
Machinery leases	9,608	17,829	6,402	9,203
Building leases	1,949	2,204	2,379	2,937
Real estate taxes	9,940	11,639	7,318	15,575
Farm insurance	14,466	20,479	8,858	18,238
Utilities	10,869	15,604	6,927	14,299
Dues & professional fees	7,565	9,388	5,344	8,709
Purchase of resale items	4,448	3,725	-	8,314
Miscellaneous	11,749	8,353	5,811	20,983
Total cash expense	817,498	1,054,061	494,162	1,121,027
Net cash farm income	197,377	177,129	146,917	348,904
Inventory Changes				
Prepays and supplies	-14,244	-58,486	5,486	21,635
Accounts receivable	-19,984	-36,020	-9,876	3,859
Hedging accounts	4,984	6,102	-66	10,645
Other current assets	1,567	-895	-181	3,362
Crops and feed	-87,811	-165,481	-76,764	-101,598
Market livestock	9,739	181	41	11,326
Breeding livestock	380	-	179	154
Other assets	3,645	2,640	737	11,702
Accounts payable	-513	-16,360	-5,491	13,178
Accrued interest	-2,180	-9,440	1,092	-150
Total inventory change	-104,417	-277,760	-84,842	-25,886
Net operating profit	92,960	-100,631	62,076	323,018
Depreciation				
Machinery and equipment	-73,201	-104,743	-44,289	-87,462
Titled vehicles	-5,354	-5,574	-3,470	-7,832
Buildings and improvements	-6,125	-5,460	-4,097	-12,567
Total depreciation	-84,680	-115,776	-51,856	-107,862
Net farm income from operations	8,280	-216,407	10,220	215,156
Gain or loss on capital sales	4,443	100	-	17,260
Net farm income	12,723	-216,307	10,220	232,417

Inventory Changes
Minnesota and North Dakota Business Management Education
Red River Valley, 2014
(Farms Sorted By Net Farm Income)

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	231	46	46	47
Net cash farm income	197,377	177,129	146,917	348,904
Crops and Feed				
Ending inventory	484,926	558,767	295,875	760,330
Beginning inventory	572,737	724,248	372,638	861,928
Inventory change	-87,811	-165,481	-76,764	-101,598
Market Livestock				
Ending inventory	20,963	673	163	34,014
Beginning inventory	11,223	493	122	22,688
Inventory change	9,739	181	41	11,326
Accts Receivable				
Ending inventory	92,315	118,258	48,390	158,456
Beginning inventory	112,299	154,277	58,266	154,597
Inventory change	-19,984	-36,020	-9,876	3,859
Prepaid Expenses and Supplies				
Ending inventory	112,127	105,085	89,759	194,314
Beginning inventory	126,371	163,571	84,272	172,678
Inventory change	-14,244	-58,486	5,486	21,635
Hedging Activities				
Ending inventory	10,580	12,901	1,878	12,963
Withdrawals	6,063	2,475	85	9,339
Beginning inventory	9,087	8,389	2,030	9,247
Deposits	2,572	885	-	2,410
Gain or loss	4,984	6,102	-66	10,645
Other Current Assets				
Ending inventory	4,663	4,702	49	11,083
Beginning inventory	3,096	5,597	230	7,721
Inventory change	1,567	-895	-181	3,362
Breeding Livestock				
Ending inventory	1,407	87	418	2,014
Capital sales	757	-	-	-
Beginning inventory	1,583	87	239	1,860
Capital purchases	201	-	-	-
Depreciation, capital adjust	380	-	179	154
Other Capital Assets				
Ending inventory	286,034	338,222	186,011	462,689
Capital sales	4,615	1,957	2,972	11,072
Beginning inventory	267,509	313,814	177,403	418,821
Capital purchases	19,494	23,724	10,844	43,238
Depreciation, capital adjust	3,645	2,640	737	11,702
Accounts Payable				
Beginning inventory	28,935	34,934	12,001	43,168
Ending inventory	29,448	51,294	17,492	29,991
Inventory change	-513	-16,360	-5,491	13,178
Accrued Interest				
Beginning inventory	15,328	21,344	12,508	17,455
Ending inventory	17,509	30,785	11,416	17,604
Inventory change	-2,180	-9,440	1,092	-150
Total inventory change	-104,417	-277,760	-84,842	-25,886
Net operating profit	92,960	-100,631	62,076	323,018

Depreciation
Minnesota and North Dakota Business Management Education
Red River Valley, 2014
(Farms Sorted By Net Farm Income)

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	231	46	46	47
Net operating profit	92,960	-100,631	62,076	323,018
Machinery and Equipment				
Ending inventory	772,452	1,099,056	503,872	950,594
Capital sales	13,055	21,973	12,928	14,901
Beginning inventory	774,150	1,102,605	503,335	938,034
Capital purchases	84,558	123,166	57,754	114,923
Depreciation, capital adjust.	-73,201	-104,743	-44,289	-87,462
Titled Vehicles				
Ending inventory	48,654	63,750	30,772	58,257
Capital sales	226	424	113	340
Beginning inventory	48,254	64,128	31,543	55,961
Capital purchases	5,980	5,620	2,811	10,469
Depreciation, capital adjust.	-5,354	-5,574	-3,470	-7,832
Buildings and Improvements				
Ending inventory	218,355	241,512	147,367	370,754
Capital sales	908	-	301	-
Beginning inventory	209,942	235,656	136,636	360,151
Capital purchases	15,446	11,315	15,129	23,170
Depreciation, capital adjust.	-6,125	-5,460	-4,097	-12,567
Total depreciation, capital adj.	-84,680	-115,776	-51,856	-107,862
Net farm income from operations	8,280	-216,407	10,220	215,156
Gain or loss on capital sales	4,443	100	-	17,260
Net farm income	12,723	-216,307	10,220	232,417

Profitability Measures
Minnesota and North Dakota Business Management Education
Red River Valley, 2014
(Farms Sorted By Net Farm Income)

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	231	46	46	47
Profitability (assets valued at cost)				
Net farm income from operations	8,280	-216,407	10,220	215,156
Rate of return on assets	-0.8 %	-6.9 %	-0.7 %	4.1 %
Rate of return on equity	-3.4 %	-15.1 %	-3.3 %	4.6 %
Operating profit margin	-2.4 %	-23.6 %	-2.2 %	12.6 %
Asset turnover rate	31.4 %	29.4 %	30.3 %	32.9 %
Farm interest expense	38,473	55,745	24,459	50,717
Value of operator lbr and mgmt.	68,324	82,712	47,157	93,954
Return on farm assets	-21,571	-243,374	-12,479	171,919
Average farm assets	2,852,804	3,511,276	1,834,526	4,156,780
Return on farm equity	-60,044	-299,119	-36,938	121,203
Average farm equity	1,743,978	1,978,571	1,107,011	2,612,631
Value of farm production	895,824	1,032,945	555,322	1,366,505

Liquidity & Repayment Capacity Measures
Minnesota and North Dakota Business Management Education
Red River Valley, 2014
(Farms Sorted By Net Farm Income)

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	231	46	46	47
Liquidity				
Current ratio	1.63	1.24	1.48	2.00
Working capital	309,610	174,755	150,744	623,223
Working capital to gross inc	33.4 %	16.8 %	27.1 %	44.2 %
Current assets	800,929	894,940	465,413	1,244,538
Current liabilities	491,319	720,185	314,669	621,315
Gross revenues (accrual)	926,334	1,037,143	555,322	1,409,448
Repayment capacity				
Net farm income from operations	8,280	-216,407	10,220	215,156
Depreciation	84,680	115,776	51,856	107,862
Personal income	25,735	21,300	33,775	17,688
Family living/owner withdrawals	-83,903	-90,057	-68,804	-107,135
Cash discrepancy	-41	-231	23	181
Payments on personal debt	-4,161	-5,618	-3,380	-5,705
Income taxes paid	-38,394	-32,701	-23,228	-61,312
Interest on term debt	24,913	33,820	17,333	32,296
Capital debt repayment capacity	17,150	-173,886	17,771	198,851
Scheduled term debt payments	-121,757	-167,897	-74,726	-167,512
Capital debt repayment margin	-104,607	-341,783	-56,955	31,338
Cash replacement allowance	-38,354	-44,208	-26,683	-52,045
Replacement margin	-142,961	-385,991	-83,638	-20,706
Term debt coverage ratio	0.14	-1.04	0.24	1.19
Replacement coverage ratio	0.11	-0.82	0.18	0.91

Balance Sheet at Cost Values
Minnesota and North Dakota Business Management Education
Red River Valley, 2014
(Farms Sorted By Net Farm Income)

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	231	46	46	47
Assets				
Current Farm Assets				
Cash and checking balance	52,775	35,866	17,738	55,968
Prepaid expenses & supplies	112,127	105,085	89,759	194,314
Growing crops	1,264	574	49	-
Accounts receivable	92,315	118,258	48,390	158,456
Hedging accounts	10,580	12,901	1,878	12,963
Crops held for sale or feed	484,564	546,407	293,972	769,723
Crops under government loan	22,942	71,049	13,463	8,017
Market livestock held for sale	20,963	673	163	34,014
Other current assets	3,399	4,128	-	11,083
Total current farm assets	800,929	894,940	465,413	1,244,538
Intermediate Farm Assets				
Breeding livestock	1,407	87	418	2,014
Machinery and equipment	772,452	1,099,056	503,872	950,594
Titled vehicles	48,654	63,750	30,772	58,257
Other intermediate assets	197,136	238,336	122,961	316,588
Total intermediate farm assets	1,019,650	1,401,229	658,024	1,327,453
Long Term Farm Assets				
Farm land	710,745	793,476	485,097	1,088,490
Buildings and improvements	218,355	241,512	147,367	370,754
Other long-term assets	88,898	99,886	63,050	146,100
Total long-term farm assets	1,017,998	1,134,874	695,514	1,605,344
Total Farm Assets	2,838,577	3,431,043	1,818,951	4,177,336
Total Nonfarm Assets	291,127	259,711	237,274	441,984
Total Assets	3,129,704	3,690,755	2,056,225	4,619,319
Liabilities				
Current Farm Liabilities				
Accrued interest	17,521	30,830	11,420	17,604
Accounts payable	29,448	51,294	17,492	29,991
Current notes	340,496	476,012	224,646	438,311
Government crop loans	13,394	41,432	7,087	4,743
Principal due on term debt	90,460	120,617	54,024	130,666
Total current farm liabilities	491,319	720,185	314,669	621,315
Total intermediate farm liabs	195,843	343,752	117,923	196,677
Total long term farm liabilities	452,475	544,680	306,348	710,327
Total farm liabilities	1,139,636	1,608,618	738,940	1,528,320
Total nonfarm liabilities	68,835	76,584	62,825	114,209
Total liabilities	1,208,471	1,685,202	801,765	1,642,529
Net worth (farm and nonfarm)	1,921,233	2,005,553	1,254,460	2,976,791
Net worth change	-72,160	-288,142	-49,375	97,067
Percent net worth change	-4 %	-13 %	-4 %	3 %
Ratio Analysis				
Current farm liabilities / assets	61 %	80 %	68 %	50 %
Intermediate farm liab. / assets	19 %	25 %	18 %	15 %
Long term farm liab. / assets	44 %	48 %	44 %	44 %
Total debt to asset ratio	39 %	46 %	39 %	36 %

Balance Sheet at Market Values
Minnesota and North Dakota Business Management Education
Red River Valley, 2014
(Farms Sorted By Net Farm Income)

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	231	46	46	47
Assets				
Current Farm Assets				
Cash and checking balance	52,775	35,866	17,738	55,968
Prepaid expenses & supplies	112,127	105,085	89,759	194,314
Growing crops	1,264	574	49	-
Accounts receivable	92,315	118,258	48,390	158,456
Hedging accounts	10,580	12,901	1,878	12,963
Crops held for sale or feed	484,564	546,407	293,972	769,723
Crops under government loan	22,942	71,049	13,463	8,017
Market livestock held for sale	20,963	673	163	34,014
Other current assets	3,399	4,128	-	11,083
Total current farm assets	800,929	894,940	465,413	1,244,538
Intermediate Farm Assets				
Breeding livestock	1,735	209	842	2,669
Machinery and equipment	948,808	1,314,041	614,157	1,196,551
Titled vehicles	57,446	68,092	33,037	80,094
Other intermediate assets	263,402	383,599	166,018	389,035
Total intermediate farm assets	1,271,391	1,765,941	814,055	1,668,349
Long Term Farm Assets				
Farm land	1,358,369	1,639,971	980,945	2,042,743
Buildings and improvements	245,269	269,275	170,216	415,102
Other long-term assets	100,937	111,153	78,250	152,562
Total long-term farm assets	1,704,575	2,020,399	1,229,410	2,610,407
Total Farm Assets	3,776,895	4,681,280	2,508,878	5,523,294
Total Nonfarm Assets	341,646	284,830	278,866	520,126
Total Assets	4,118,540	4,966,110	2,787,744	6,043,420
Liabilities				
Current Farm Liabilities				
Accrued interest	17,521	30,830	11,420	17,604
Accounts payable	29,448	51,294	17,492	29,991
Current notes	340,496	476,012	224,646	438,311
Government crop loans	13,394	41,432	7,087	4,743
Principal due on term debt	90,460	120,617	54,024	130,666
Total current farm liabilities	491,319	720,185	314,669	621,315
Total intermediate farm liabs	195,843	343,752	117,923	196,677
Total long term farm liabilities	452,475	544,680	306,348	710,327
Total farm liabilities	1,139,636	1,608,618	738,940	1,528,320
Total nonfarm liabilities	68,835	76,584	62,825	114,209
Total liabs excluding deferreds	1,208,471	1,685,202	801,765	1,642,529
Total deferred liabilities	318,913	381,242	190,400	546,712
Total liabilities	1,527,384	2,066,444	992,165	2,189,241
Retained earnings	1,921,233	2,005,553	1,254,460	2,976,791
Market valuation equity	669,924	894,114	541,119	877,389
Net worth (farm and nonfarm)	2,591,157	2,899,667	1,795,579	3,854,179
Net worth excluding deferreds	2,910,069	3,280,909	1,985,979	4,400,891
Net worth change	7,706	-136,398	10,053	144,575
Percent net worth change	0 %	-4 %	1 %	4 %
Ratio Analysis				
Current farm liabilities / assets	61 %	80 %	68 %	50 %
Intermediate farm liab. / assets	15 %	19 %	14 %	12 %
Long term farm liab. / assets	27 %	27 %	25 %	27 %
Total debt to asset ratio	37 %	42 %	36 %	36 %
Debt to assets excl deferreds	29 %	34 %	29 %	27 %

Statement Of Cash Flows
Minnesota and North Dakota Business Management Education
Red River Valley, 2014
(Farms Sorted By Net Farm Income)

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	231	46	46	47
Beginning cash (farm & nonfarm)	67,565	82,500	23,206	66,890
Cash Provided By Operating Activities				
Gross cash farm income	1,014,875	1,231,190	641,079	1,469,930
Total cash farm expense	-817,498	-1,054,061	-494,162	-1,121,027
Net cash from hedging transactions	3,491	1,590	85	6,929
Cash provided by operating	200,868	178,719	147,003	355,832
Cash Provided By Investing Activities				
Sale of breeding livestock	757	-	-	-
Sale of machinery & equipment	13,171	22,073	12,928	14,901
Sale of titled vehicles	230	424	113	340
Sale of farm land	12,368	-	-	60,788
Sale of farm buildings	908	-	301	-
Sale of other farm assets	5,318	1,957	2,972	10,540
Sale of nonfarm assets	6,305	6,425	4,521	12,126
Purchase of breeding livestock	-201	-	-	-
Purchase of machinery & equip.	-84,558	-123,166	-57,754	-114,923
Purchase of titled vehicles	-5,980	-5,620	-2,811	-10,469
Purchase of farm land	-49,176	-43,046	-19,367	-66,169
Purchase of farm buildings	-15,446	-11,315	-15,129	-23,170
Purchase of other farm assets	-19,494	-23,724	-10,844	-43,238
Purchase of nonfarm assets	-23,349	-23,608	-12,068	-35,075
Cash provided by investing	-159,148	-199,601	-97,137	-194,348
Cash Provided By Financing Activities				
Money borrowed	595,493	847,607	349,844	932,107
Principal payments	-552,774	-790,225	-334,457	-946,201
Personal income	25,735	21,300	33,775	17,688
Family living/owner withdrawals	-83,903	-90,057	-68,804	-107,135
Income and social security tax	-36,262	-30,757	-19,858	-60,121
Capital contributions	527	366	-	2,230
Capital distributions	-763	-	-	-1,948
Dividends paid	-	-	-	-
Cash gifts and inheritances	6,844	22,945	958	1,064
Gifts given	-403	-347	-624	-350
Other cash flows	-	-	-	-
Cash provided by financing	-45,507	-19,168	-39,167	-162,665
Net change in cash balance	-3,787	-40,050	10,698	-1,180
Ending cash (farm & nonfarm)	63,737	42,219	33,927	65,891
Discrepancy	41	231	-23	-181

Financial Standards Measures
Minnesota and North Dakota Business Management Education
Red River Valley, 2014
(Farms Sorted By Net Farm Income)

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	231	46	46	47
Liquidity				
Current ratio	1.63	1.24	1.48	2.00
Working capital	309,610	174,755	150,744	623,223
Working capital to gross inc	33.4 %	16.8 %	27.1 %	44.2 %
Solvency (market)				
Farm debt to asset ratio	38 %	42 %	37 %	37 %
Farm equity to asset ratio	62 %	58 %	63 %	63 %
Farm debt to equity ratio	0.62	0.72	0.58	0.60
Profitability (cost)				
Rate of return on farm assets	-0.8 %	-6.9 %	-0.7 %	4.1 %
Rate of return on farm equity	-3.4 %	-15.1 %	-3.3 %	4.6 %
Operating profit margin	-2.4 %	-23.6 %	-2.2 %	12.6 %
Net farm income	12,723	-216,307	10,220	232,417
EBITDA	131,433	-44,886	86,534	373,735
Repayment Capacity				
Capital debt repayment capacity	17,150	-173,886	17,771	198,851
Capital debt repayment margin	-104,607	-341,783	-56,955	31,338
Replacement margin	-142,961	-385,991	-83,638	-20,706
Term debt coverage ratio	0.14	-1.04	0.24	1.19
Replacement coverage ratio	0.11	-0.82	0.18	0.91
Efficiency				
Asset turnover rate (cost)	31.4 %	29.4 %	30.3 %	32.9 %
Operating expense ratio	85.8 %	104.3 %	84.4 %	73.5 %
Depreciation expense ratio	9.1 %	11.2 %	9.3 %	7.7 %
Interest expense ratio	4.2 %	5.4 %	4.4 %	3.6 %
Net farm income ratio	1.4 %	-20.9 %	1.8 %	16.5 %

Crop Production and Marketing Summary
Minnesota and North Dakota Business Management Education
Red River Valley, 2014
(Farms Sorted By Net Farm Income)

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	231	46	46	47
Acreage Summary				
Total acres owned	431	403	384	632
Total crop acres	1,745	2,281	1,194	2,209
Crop acres owned	427	478	391	575
Crop acres cash rented	1,264	1,758	760	1,525
Crop acres share rented	55	45	42	108
Total pasture acres	2	1	-	-
Percent crop acres owned	24 %	21 %	33 %	26 %
Mach invest/crop acre cost	467	503	448	453
Mach invest/crop acre market	568	593	540	571
Average Price Received (Cash Sales Only)				
Soybeans per bushel	11.17	10.80	10.97	11.77
Corn per bushel	3.84	3.61	4.00	4.25
Wheat, Spring per bushel	6.34	6.30	6.31	6.44
Beans, Pinto per cwt	32.00	-	-	-
Soybeans, Food per bushel	14.64	-	-	-
Beans, Black Turtle per cwt	34.79	-	-	-
Hay, Alfalfa per ton	132.43	-	-	-
Average Yield Per Acre				
Soybeans (bushel)	37.67	36.24	37.14	39.85
Corn (bushel)	131.21	121.80	137.48	138.54
Wheat, Spring (bushel)	66.14	67.85	61.75	67.41
Sugar Beets (ton)	22.89	21.77	22.93	24.36
Soybeans, Food (bushel)	33.44	29.27	34.53	35.22
Hay, Alfalfa (ton)	2.99	-	-	3.07
Beans, Pinto (cwt)	15.92	-	-	-
Sunflowers (cwt)	16.39	-	-	-
Wheat, Winter (bushel)	38.25	-	-	-

Operator and Labor Information
Minnesota and North Dakota Business Management Education
Red River Valley, 2014
(Farms Sorted By Net Farm Income)

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	231	46	46	47
Operator Information				
Average number of operators	1.1	1.2	1.0	1.2
Average age of operators	47.6	48.7	45.3	48.8
Average number of years farming	24.2	25.5	20.5	26.1
Results Per Operator				
Working capital	279,615	141,031	153,243	522,782
Total assets (market)	3,719,536	4,007,738	2,833,950	5,069,440
Total liabilities	1,379,411	1,667,656	1,008,610	1,836,415
Net worth (market)	2,340,125	2,340,082	1,825,340	3,233,026
Net worth excl deferred liabs	2,628,141	2,647,751	2,018,896	3,691,628
Gross farm income	836,591	836,993	564,526	1,182,297
Total farm expense	829,113	1,011,637	554,137	1,001,816
Net farm income from operations	7,478	-174,644	10,389	180,481
Net nonfarm income	23,242	17,190	34,334	14,837
Family living & tax withdrawals	110,486	99,254	93,534	141,147
Total acres owned	388.9	325.3	390.0	530.0
Total crop acres	1,575.9	1,840.7	1,213.3	1,852.9
Crop acres owned	385.5	385.9	397.5	482.6
Crop acres cash rented	1,141.2	1,418.7	772.7	1,279.4
Crop acres share rented	49.3	36.0	43.1	90.9
Total pasture acres	1.8	0.4	-	-
Labor Analysis				
Number of farms	231	46	46	47
Total unpaid labor hours	1,821	1,959	1,382	2,219
Total hired labor hours	1,771	2,701	756	2,708
Total labor hours per farm	3,592	4,659	2,138	4,927
Unpaid hours per operator	1,645	1,581	1,405	1,862

Nonfarm Summary
Minnesota and North Dakota Business Management Education
Red River Valley, 2014
(Farms Sorted By Net Farm Income)

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	231	46	46	47
Nonfarm Income				
Personal wages & salary	18,086	13,944	26,296	11,384
Net nonfarm business income	1,415	1,391	293	673
Personal rental income	876	197	-	396
Personal interest income	105	69	143	196
Personal cash dividends	38	89	2	77
Tax refunds	527	541	619	85
Other nonfarm income	4,688	5,070	6,422	4,877
Total nonfarm income	25,735	21,300	33,775	17,688
Gifts and inheritances	6,844	22,945	958	1,064

Financial Summary
Minnesota and North Dakota Business Management Education
Red River Valley, 2014
(Farms Sorted By Gross Farm Income)

	<u>Avg. Of All Farms</u>	<u>100,001 - 250,000</u>	<u>250,001 - 500,000</u>	<u>500,001 - 1,000,000</u>	<u>Over 1,000,000</u>
Number of farms	231	20	39	78	89
Income Statement					
Gross cash farm income	1,014,875	177,126	375,552	726,468	1,790,440
Total cash farm expense	817,498	154,296	320,490	578,457	1,436,529
Net cash farm income	197,377	22,831	55,062	148,010	353,911
Inventory change	-104,417	12,771	-18,083	-89,521	-190,073
Depreciation	-84,680	-12,332	-39,157	-64,033	-143,429
Net farm income from operations	8,280	23,270	-2,178	-5,544	20,409
Gain or loss on capital sales	4,443	46	14,050	22	5,346
Average net farm income	12,723	23,316	11,872	-5,522	25,755
Median net farm income	11,596	12,029	4,411	4,266	23,906
Profitability (cost)					
Rate of return on assets	-0.8 %	2.3 %	-1.6 %	-1.4 %	-0.5 %
Rate of return on equity	-3.4 %	1.0 %	-5.3 %	-4.8 %	-2.8 %
Operating profit margin	-2.4 %	6.3 %	-5.4 %	-4.9 %	-1.5 %
Asset turnover rate	31.4 %	36.6 %	29.9 %	29.4 %	32.2 %
Liquidity & Repayment (end of year)					
Current assets	800,929	150,540	329,503	536,828	1,424,389
Current liabilities	491,319	122,583	195,199	368,644	835,627
Current ratio	1.63	1.23	1.69	1.46	1.70
Working capital	309,610	27,957	134,304	168,184	588,762
Working capital to gross inc	33.4 %	14.3 %	36.4 %	25.8 %	36.3 %
Term debt coverage ratio	0.14	0.43	0.20	-0.02	0.18
Replacement coverage ratio	0.11	0.36	0.16	-0.01	0.14
Term debt to EBITDA	4.75	3.50	5.22	5.34	4.59
Solvency (end of year at cost)					
Number of farms	231	20	39	78	89
Total assets	3,129,704	673,920	1,404,288	2,446,684	5,186,876
Total liabilities	1,208,471	334,797	525,146	951,734	1,988,430
Net worth	1,921,233	339,123	879,141	1,494,950	3,198,446
Net worth change	-72,160	1,269	-22,716	-79,345	-109,839
Farm debt to asset ratio	40 %	50 %	40 %	41 %	40 %
Total debt to asset ratio	39 %	50 %	37 %	39 %	38 %
Change in earned net worth %	-4 %	0 %	-3 %	-5 %	-3 %
Solvency (end of year at market)					
Number of farms	231	20	39	78	89
Total assets	4,118,540	839,678	1,964,095	3,177,521	6,826,702
Total liabilities	1,527,384	365,754	680,395	1,127,900	2,585,721
Net worth	2,591,157	473,925	1,283,700	2,049,622	4,240,981
Total net worth change	7,706	3,400	-13,205	24,103	2,783
Farm debt to asset ratio	38 %	44 %	36 %	36 %	39 %
Total debt to asset ratio	37 %	44 %	35 %	35 %	38 %
Change in total net worth %	0 %	1 %	-1 %	1 %	0 %
Nonfarm Information					
Net nonfarm income	25,735	39,631	37,901	24,306	18,205
Crop Acres					
Total crop acres	1,745	413	876	1,388	2,828
Total crop acres owned	427	83	222	416	626
Total crop acres cash rented	1,264	303	592	920	2,139
Total crop acres share rented	55	27	62	51	63
Machinery value per crop acre	467	315	410	480	473

Financial Summary
Minnesota and North Dakota Business Management Education
Red River Valley, 2014
(Farms Sorted By Age of Operator)

	<u>Avg. Of All Farms</u>	<u>Less Than 31</u>	<u>31 - 40</u>	<u>41 - 50</u>	<u>51 - 60</u>	<u>Over 60</u>
Number of farms	231	20	44	52	81	34
Income Statement						
Gross cash farm income	1,014,875	383,420	808,377	1,068,554	1,222,512	1,076,787
Total cash farm expense	817,498	341,218	678,011	902,471	955,475	819,505
Net cash farm income	197,377	42,202	130,366	166,083	267,038	257,282
Inventory change	-104,417	27,302	-88,881	-64,827	-147,449	-160,039
Depreciation	-84,680	-26,624	-55,201	-83,003	-111,783	-94,974
Net farm income from operations	8,280	42,881	-13,716	18,253	7,806	2,270
Gain or loss on capital sales	4,443	-	19,103	2	2,302	-24
Average net farm income	12,723	42,881	5,388	18,255	10,108	2,246
Median net farm income	11,596	29,151	16,442	14,766	2,389	2,518
Profitability (cost)						
Rate of return on assets	-0.8 %	3.3 %	-1.5 %	-0.2 %	-0.7 %	-1.4 %
Rate of return on equity	-3.4 %	2.7 %	-5.9 %	-2.8 %	-3.3 %	-3.5 %
Operating profit margin	-2.4 %	6.5 %	-4.6 %	-0.7 %	-2.5 %	-5.0 %
Asset turnover rate	31.4 %	51.5 %	33.1 %	33.4 %	29.6 %	29.0 %
Liquidity & Repayment (end of year)						
Current assets	800,929	277,427	607,116	840,902	958,406	923,385
Current liabilities	491,319	220,399	453,353	529,655	553,707	492,554
Current ratio	1.63	1.26	1.34	1.59	1.73	1.87
Working capital	309,610	57,028	153,763	311,247	404,699	430,831
Working capital to gross inc	33.4 %	13.6 %	21.3 %	30.5 %	36.7 %	46.5 %
Term debt coverage ratio	0.14	0.84	-0.12	0.28	0.12	0.08
Replacement coverage ratio	0.11	0.78	-0.10	0.21	0.09	0.06
Term debt to EBITDA	4.75	2.90	7.46	4.62	4.70	3.80
Solvency (end of year at cost)						
Number of farms	231	20	44	52	81	34
Total assets	3,129,704	966,599	2,377,248	3,049,350	4,017,015	3,384,892
Total liabilities	1,208,471	565,915	1,169,523	1,277,056	1,441,984	975,645
Net worth	1,921,233	400,683	1,207,724	1,772,294	2,575,032	2,409,248
Net worth change	-72,160	9,449	-63,848	-64,112	-91,829	-96,372
Farm debt to asset ratio	40 %	59 %	49 %	43 %	38 %	31 %
Total debt to asset ratio	39 %	59 %	49 %	42 %	36 %	29 %
Change in earned net worth %	-4 %	2 %	-5 %	-3 %	-3 %	-4 %
Solvency (end of year at market)						
Number of farms	231	20	44	52	81	34
Total assets	4,118,540	1,054,372	2,875,931	3,875,096	5,543,993	4,505,471
Total liabilities	1,527,384	604,238	1,379,945	1,598,742	1,877,555	1,317,847
Net worth	2,591,157	450,134	1,495,986	2,276,355	3,666,438	3,187,624
Total net worth change	7,706	17,952	-7,999	-34,921	60,818	-39,337
Farm debt to asset ratio	38 %	58 %	48 %	42 %	35 %	31 %
Total debt to asset ratio	37 %	57 %	48 %	41 %	34 %	29 %
Change in total net worth %	0 %	4 %	-1 %	-2 %	2 %	-1 %
Nonfarm Information						
Net nonfarm income	25,735	26,971	26,040	15,367	34,521	19,539
Crop Acres						
Total crop acres	1,745	804	1,291	1,894	2,109	1,792
Total crop acres owned	427	70	243	392	613	484
Total crop acres cash rented	1,264	680	994	1,441	1,453	1,232
Total crop acres share rented	55	54	54	61	42	75
Machinery value per crop acre	467	350	400	445	492	522

EXPLANATORY NOTES FOR CROPS TABLES

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

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

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

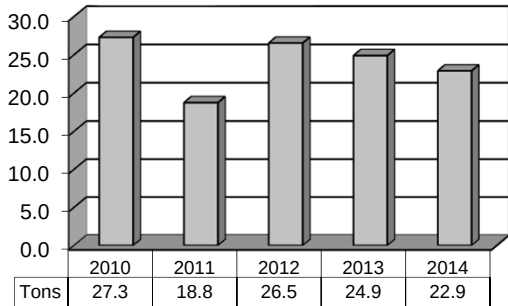
"Total direct expense per unit" and "Total dir & ovhd exp per unit" are calculated by dividing "Total direct expense per acre" and "Total dir & ovhd expenses per acre," respectively, by "Yield per acre." "With labor & management" is the breakeven yield after direct, overhead and a labor and management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

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

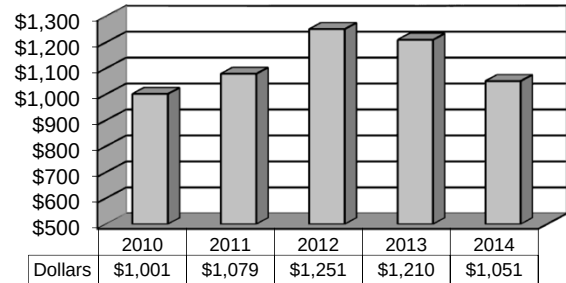
Rounding of individual items for the report may have caused minor discrepancies with the calculated totals.

Five Year Crop History of Yields and Cost of Production Red River Valley Farm Business Management Education

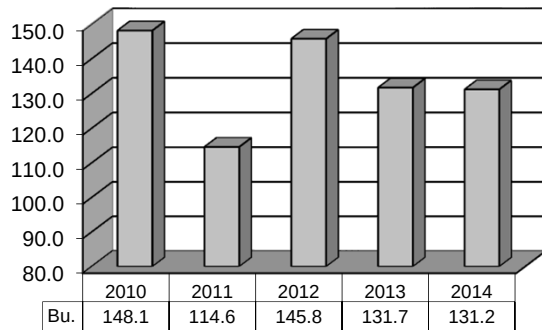
Sugar Beet Yields



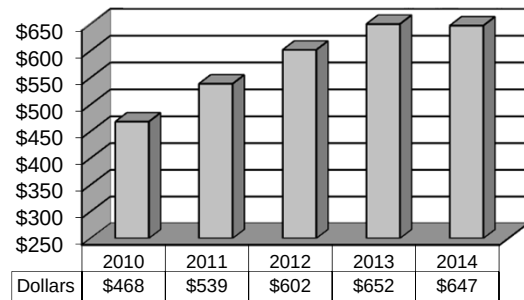
**Sugar Beet Total Listed Cost
(cash rented land)**



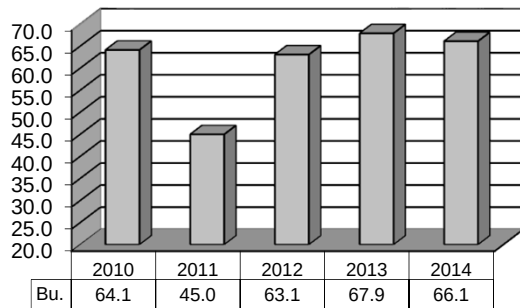
Corn Yields



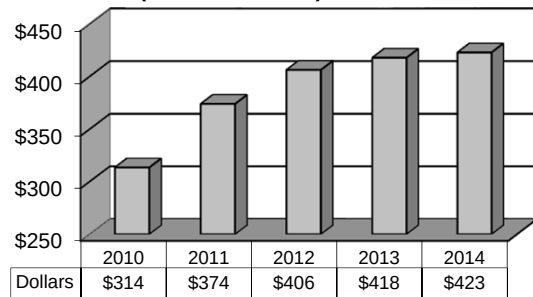
**Corn Total Listed Cost
(cash rented land)**



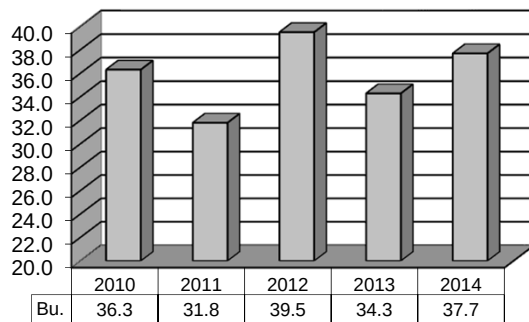
Spring Wheat Yields



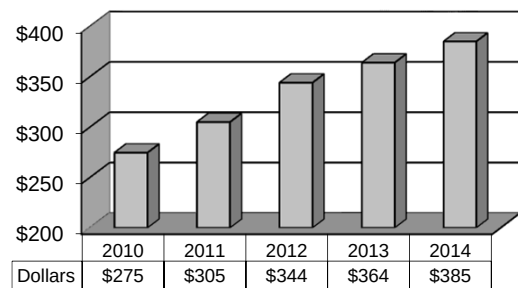
**Spring Wheat Total Listed Cost
(cash rented land)**



Soybeans Yields



**Soybeans Total Listed Cost
(cash rented land)**



Crop Enterprise Analysis
Minnesota and North Dakota Business Management Education
Red River Valley, 2014
(Farms Sorted By Return to Overhead)

Beans, Pinto on Cash Rent

	<u>Avg. Of All Farms</u>
Number of farms	6
Yield per acre (cwt.)	15.65
Operators share of yield %	100.00
Value per cwt.	25.06
Total product return per acre	392.24
Crop insurance per acre	55.60
Other crop income per acre	1.66
Gross return per acre	449.50
Direct Expenses	
Seed	57.22
Fertilizer	43.10
Crop chemicals	80.31
Crop insurance	28.49
Fuel & oil	33.86
Repairs	52.34
Custom hire	7.48
Hired labor	3.62
Land rent	109.08
Operating interest	4.11
Miscellaneous	1.58
Total direct expenses per acre	421.18
Return over direct exp per acre	28.32
Overhead Expenses	
Hired labor	20.57
Machinery leases	1.60
Building leases	2.15
Farm insurance	9.42
Utilities	5.72
Dues & professional fees	4.55
Interest	2.40
Mach & bldg depreciation	52.74
Miscellaneous	1.06
Total overhead expenses per acre	100.21
Total dir & ovhd expenses per acre	521.40
Net return per acre	-71.90
Government payments	-
Net return with govt pmts	-71.90
Labor & management charge	44.53
Net return over lbr & mgt	-116.42
Cost of Production	
Total direct expense per cwt.	26.91
Total dir & ovhd exp per cwt.	33.31
Less govt & other income	29.66
With labor & management	32.50
Net value per unit	25.06
Machinery cost per acre	145.06
Est. labor hours per acre	2.40

Crop Enterprise Analysis
Minnesota and North Dakota Business Management Education
Red River Valley, 2014
(Farms Sorted By Return to Overhead)

Corn on Owned Land

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	77	15	16	16
Yield per acre (bu.)	129.55	108.87	136.12	143.57
Operators share of yield %	100.00	100.00	100.00	100.00
Value per bu.	3.61	3.43	3.56	3.99
Total product return per acre	467.17	373.39	484.87	573.28
Hedging gains/losses per acre	4.69	3.13	2.41	17.21
Crop insurance per acre	72.14	97.04	45.76	82.76
Other crop income per acre	2.48	-	4.01	1.20
Gross return per acre	546.49	473.56	537.05	674.44
Direct Expenses				
Seed	101.99	108.71	94.12	95.89
Fertilizer	138.99	152.96	129.60	120.60
Crop chemicals	24.20	26.27	24.22	21.02
Crop insurance	26.89	31.79	19.40	28.55
Drying expense	20.23	23.64	15.62	18.04
Fuel & oil	35.13	31.70	40.88	35.96
Repairs	39.33	44.38	39.10	42.26
Custom hire	5.56	7.08	3.71	8.32
Hired labor	1.55	1.30	0.42	0.99
Machinery leases	0.69	-	1.04	0.30
Operating interest	10.04	18.59	7.80	4.42
Miscellaneous	2.32	1.95	2.57	2.46
Total direct expenses per acre	406.92	448.39	378.48	378.81
Return over direct exp per acre	139.57	25.18	158.57	295.63
Overhead Expenses				
Custom hire	1.42	-	0.66	3.99
Hired labor	22.45	29.70	18.66	24.52
Machinery leases	3.72	1.46	5.91	2.30
Building leases	0.96	0.81	1.07	1.78
RE & pers. property taxes	21.25	21.19	19.54	26.00
Farm insurance	8.98	11.81	8.32	6.49
Utilities	6.90	8.47	7.23	5.66
Dues & professional fees	4.70	4.39	4.88	5.72
Interest	44.27	52.23	50.30	37.22
Mach & bldg depreciation	60.49	58.72	67.38	63.16
Miscellaneous	4.73	7.56	4.22	1.77
Total overhead expenses per acre	179.87	196.34	188.18	178.60
Total dir & ovhd expenses per acre	586.79	644.72	566.67	557.41
Net return per acre	-40.30	-171.16	-29.62	117.03
Government payments	8.02	0.50	10.24	11.53
Net return with govt pmts	-32.28	-170.67	-19.37	128.56
Labor & management charge	44.87	40.18	45.03	46.84
Net return over lbr & mgt	-77.16	-210.85	-64.40	81.72
Cost of Production				
Total direct expense per bu.	3.14	4.12	2.78	2.64
Total dir & ovhd exp per bu.	4.53	5.92	4.16	3.88
Less govt & other income	3.86	5.00	3.70	3.10
With labor & management	4.20	5.37	4.04	3.42
Net value per unit	3.64	3.46	3.58	4.11
Machinery cost per acre	147.89	151.99	159.01	144.05
Est. labor hours per acre	2.19	2.27	1.87	2.43

Crop Enterprise Analysis
Minnesota and North Dakota Business Management Education
Red River Valley, 2014
(Farms Sorted By Return to Overhead)

Corn on Cash Rent

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	115	23	23	23
Yield per acre (bu.)	131.56	133.10	137.96	132.26
Operators share of yield %	100.00	100.00	100.00	100.00
Value per bu.	3.66	3.37	3.66	3.78
Total product return per acre	481.20	448.30	505.17	499.80
Hedging gains/losses per acre	7.83	1.07	4.75	17.39
Crop insurance per acre	76.59	42.63	64.47	94.54
Other crop income per acre	4.17	-	4.49	8.58
Gross return per acre	569.79	492.00	578.89	620.31
Direct Expenses				
Seed	101.23	111.64	103.27	93.50
Fertilizer	138.88	150.58	129.08	124.31
Crop chemicals	23.26	27.90	20.84	18.86
Crop insurance	25.98	38.85	23.04	22.77
Drying expense	19.73	24.70	17.55	16.72
Fuel & oil	33.25	34.49	37.56	32.34
Repairs	39.14	50.88	39.52	32.60
Custom hire	4.45	9.35	5.10	2.02
Hired labor	1.94	0.95	1.13	0.99
Land rent	128.78	127.57	144.96	128.33
Machinery leases	2.10	0.60	1.40	1.08
Operating interest	8.61	13.80	4.69	8.74
Miscellaneous	4.48	2.37	6.62	4.20
Total direct expenses per acre	531.83	593.69	534.74	486.47
Return over direct exp per acre	37.96	-101.69	44.14	133.83
Overhead Expenses				
Custom hire	1.60	0.30	1.55	1.10
Hired labor	20.74	40.26	26.43	14.63
Machinery leases	5.15	3.15	8.64	6.33
Building leases	1.07	1.01	1.45	0.55
Farm insurance	8.05	12.42	7.02	7.70
Utilities	6.08	9.00	5.97	4.80
Dues & professional fees	4.52	5.89	7.46	3.20
Interest	5.67	8.69	4.47	3.83
Mach & bldg depreciation	57.07	66.63	70.18	44.28
Miscellaneous	5.20	6.91	3.72	5.03
Total overhead expenses per acre	115.15	154.28	136.90	91.44
Total dir & ovhd expenses per acre	646.98	747.96	671.64	577.91
Net return per acre	-77.19	-255.96	-92.76	42.39
Government payments	7.35	0.13	12.29	12.03
Net return with govt pmts	-69.84	-255.83	-80.47	54.42
Labor & management charge	48.76	49.89	46.49	48.12
Net return over lbr & mgt	-118.59	-305.72	-126.96	6.30
Cost of Production				
Total direct expense per bu.	4.04	4.46	3.88	3.68
Total dir & ovhd exp per bu.	4.92	5.62	4.87	4.37
Less govt & other income	4.19	5.29	4.25	3.37
With labor & management	4.56	5.66	4.58	3.73
Net value per unit	3.72	3.38	3.70	3.91
Machinery cost per acre	144.46	172.28	163.54	120.15
Est. labor hours per acre	2.19	2.14	2.11	2.17

Crop Enterprise Analysis
Minnesota and North Dakota Business Management Education
Red River Valley, 2014
(Farms Sorted By Return to Overhead)

Soybeans on Owned Land

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	125	25	25	25
Yield per acre (bu.)	38.19	32.40	38.37	45.15
Operators share of yield %	100.00	100.00	100.00	100.00
Value per bu.	9.88	9.60	9.77	10.07
Total product return per acre	377.43	311.09	374.90	454.91
Hedging gains/losses per acre	2.51	2.25	-	1.72
Crop insurance per acre	13.67	13.99	12.89	10.06
Other crop income per acre	1.43	0.37	2.09	2.49
Gross return per acre	395.02	327.70	389.88	469.18
Direct Expenses				
Seed	68.56	70.39	70.66	66.30
Fertilizer	10.58	14.07	12.99	7.61
Crop chemicals	22.99	22.00	24.62	19.39
Crop insurance	21.89	19.90	21.81	23.29
Fuel & oil	20.36	23.49	19.59	20.72
Repairs	24.27	29.96	18.83	22.16
Custom hire	4.34	3.63	5.00	4.29
Hired labor	1.56	2.63	0.34	4.91
Machinery leases	1.18	0.07	1.89	2.13
Operating interest	4.12	6.41	4.66	3.16
Miscellaneous	3.15	5.55	5.01	2.91
Total direct expenses per acre	183.01	198.12	185.38	176.87
Return over direct exp per acre	212.02	129.58	204.50	292.31
Overhead Expenses				
Custom hire	0.69	0.45	0.09	0.58
Hired labor	11.88	15.69	8.17	10.35
Machinery leases	2.57	4.14	1.43	0.57
Building leases	0.52	0.64	0.25	0.10
RE & pers. property taxes	19.97	18.99	19.22	17.53
Farm insurance	7.00	7.76	6.45	6.66
Utilities	4.67	5.95	4.29	4.98
Dues & professional fees	3.97	2.96	3.95	5.09
Interest	37.79	41.70	43.42	14.83
Mach & bldg depreciation	35.36	42.89	34.76	32.56
Miscellaneous	3.94	6.47	4.20	3.12
Total overhead expenses per acre	128.36	147.64	126.24	96.39
Total dir & ovhd expenses per acre	311.37	345.76	311.62	273.25
Net return per acre	83.65	-18.06	78.26	195.93
Government payments	6.15	0.82	4.39	9.23
Net return with govt pmts	89.80	-17.24	82.65	205.16
Labor & management charge	27.41	29.35	26.63	29.97
Net return over lbr & mgt	62.39	-46.58	56.02	175.19
Cost of Production				
Total direct expense per bu.	4.79	6.11	4.83	3.92
Total dir & ovhd exp per bu.	8.15	10.67	8.12	6.05
Less govt & other income	7.53	10.13	7.62	5.53
With labor & management	8.25	11.04	8.31	6.20
Net value per unit	9.95	9.67	9.77	10.11
Machinery cost per acre	89.07	103.60	83.42	83.49
Est. labor hours per acre	1.38	1.68	1.18	1.29

Crop Enterprise Analysis
Minnesota and North Dakota Business Management Education
Red River Valley, 2014
(Farms Sorted By Return to Overhead)

Soybeans on Cash Rent

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	163	32	32	33
Yield per acre (bu.)	37.50	34.50	38.38	39.58
Operators share of yield %	100.00	100.00	100.00	100.00
Value per bu.	9.85	9.61	9.77	10.28
Total product return per acre	369.29	331.63	374.84	406.86
Hedging gains/losses per acre	3.71	0.67	9.28	8.19
Crop insurance per acre	17.38	13.57	7.51	40.31
Other crop income per acre	1.46	0.48	1.03	-
Gross return per acre	391.84	346.36	392.66	455.36
Direct Expenses				
Seed	68.73	70.99	65.16	67.90
Fertilizer	12.26	22.99	7.97	13.86
Crop chemicals	24.38	28.66	23.84	18.70
Crop insurance	22.31	22.47	25.89	21.23
Fuel & oil	19.90	20.69	20.91	17.51
Repairs	23.44	26.48	25.48	18.42
Custom hire	4.22	5.68	4.53	5.15
Hired labor	1.35	1.82	0.46	3.44
Land rent	129.68	141.01	121.80	122.96
Machinery leases	1.66	2.21	2.64	0.46
Operating interest	4.33	6.94	2.37	4.11
Miscellaneous	3.07	5.25	2.05	1.59
Total direct expenses per acre	315.33	355.20	303.11	295.33
Return over direct exp per acre	76.51	-8.84	89.55	160.04
Overhead Expenses				
Custom hire	0.57	0.00	1.11	1.23
Hired labor	11.81	11.04	12.25	7.79
Machinery leases	3.20	6.78	3.31	0.97
Building leases	0.70	0.57	0.72	0.82
Farm insurance	6.55	6.60	7.35	5.29
Utilities	4.19	5.28	5.02	3.00
Dues & professional fees	3.89	3.78	5.00	3.15
Interest	3.26	4.04	2.66	3.35
Mach & bldg depreciation	32.62	33.70	37.07	25.77
Miscellaneous	3.14	3.32	3.52	2.42
Total overhead expenses per acre	69.92	75.10	78.01	53.79
Total dir & ovhd expenses per acre	385.25	430.29	381.12	349.12
Net return per acre	6.59	-83.94	11.54	106.25
Government payments	5.79	5.42	10.62	3.11
Net return with govt pmts	12.38	-78.52	22.16	109.35
Labor & management charge	28.19	26.81	32.25	30.88
Net return over lbr & mgt	-15.81	-105.32	-10.09	78.47
Cost of Production				
Total direct expense per bu.	8.41	10.30	7.90	7.46
Total dir & ovhd exp per bu.	10.27	12.47	9.93	8.82
Less govt & other income	9.52	11.89	9.19	7.52
With labor & management	10.27	12.67	10.03	8.30
Net value per unit	9.95	9.63	10.01	10.49
Machinery cost per acre	86.80	97.11	94.53	71.91
Est. labor hours per acre	1.41	1.54	1.47	1.25

Crop Enterprise Analysis
Minnesota and North Dakota Business Management Education
Red River Valley, 2014
(Farms Sorted By Return to Overhead)

Soybeans, Food on Owned Land

	<u>Avg. Of All Farms</u>
Number of farms	9
Yield per acre (bu.)	33.23
Operators share of yield %	100.00
Value per bu.	13.25
Total product return per acre	440.25
Crop insurance per acre	27.24
Other crop income per acre	6.25
Gross return per acre	473.73
Direct Expenses	
Seed	39.18
Fertilizer	18.89
Crop chemicals	39.97
Crop insurance	16.76
Fuel & oil	19.72
Repairs	25.11
Custom hire	3.29
Hired labor	2.42
Machinery leases	2.13
Operating interest	7.20
Miscellaneous	5.49
Total direct expenses per acre	180.15
Return over direct exp per acre	293.58
Overhead Expenses	
Hired labor	8.83
Machinery leases	2.44
Building leases	0.63
RE & pers. property taxes	22.74
Farm insurance	6.23
Utilities	4.57
Dues & professional fees	5.59
Interest	67.15
Mach & bldg depreciation	35.15
Miscellaneous	2.91
Total overhead expenses per acre	156.24
Total dir & ovhd expenses per acre	336.40
Net return per acre	137.33
Government payments	5.38
Net return with govt pmts	142.71
Labor & management charge	26.24
Net return over lbr & mgt	116.47
Cost of Production	
Total direct expense per bu.	5.42
Total dir & ovhd exp per bu.	10.12
Less govt & other income	8.95
With labor & management	9.74
Net value per unit	13.25
Machinery cost per acre	88.99
Est. labor hours per acre	1.13

Crop Enterprise Analysis
Minnesota and North Dakota Business Management Education
Red River Valley, 2014
(Farms Sorted By Return to Overhead)

Soybeans, Food on Cash Rent

	<u>Avg. Of All Farms</u>
Number of farms	14
Yield per acre (bu.)	33.50
Operators share of yield %	100.00
Value per bu.	13.74
Total product return per acre	460.25
Hedging gains/losses per acre	10.53
Crop insurance per acre	17.03
Other crop income per acre	7.63
Gross return per acre	495.44
Direct Expenses	
Seed	34.50
Fertilizer	21.22
Crop chemicals	39.06
Crop insurance	13.75
Fuel & oil	18.92
Repairs	22.62
Custom hire	3.77
Hired labor	0.87
Land rent	134.64
Machinery leases	7.63
Operating interest	5.39
Miscellaneous	6.83
Total direct expenses per acre	309.20
Return over direct exp per acre	186.24
Overhead Expenses	
Hired labor	10.81
Machinery leases	1.02
Building leases	1.09
Farm insurance	5.87
Utilities	4.84
Dues & professional fees	3.77
Interest	3.77
Mach & bldg depreciation	30.90
Miscellaneous	5.98
Total overhead expenses per acre	68.04
Total dir & ovhd expenses per acre	377.25
Net return per acre	118.20
Government payments	4.92
Net return with govt pmts	123.12
Labor & management charge	23.99
Net return over lbr & mgt	99.12
Cost of Production	
Total direct expense per bu.	9.23
Total dir & ovhd exp per bu.	11.26
Less govt & other income	10.06
With labor & management	10.78
Net value per unit	14.05
Machinery cost per acre	85.09
Est. labor hours per acre	1.32

Crop Enterprise Analysis
Minnesota and North Dakota Business Management Education
Red River Valley, 2014
(Farms Sorted By Return to Overhead)

Sugar Beets on Owned Land Excluding Joint Venture

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	33	6	6	7
Yield per acre (ton)	23.28	21.99	21.38	26.86
Operators share of yield %	100.00	100.00	100.00	100.00
Value per ton	36.09	35.20	36.99	36.69
Total product return per acre	839.97	774.24	790.73	985.49
Crop insurance per acre	7.23	1.59	0.68	19.52
Other crop income per acre	9.37	7.12	28.94	7.93
Gross return per acre	856.57	782.95	820.35	1,012.94
Direct Expenses				
Seed	205.50	207.13	182.72	207.82
Fertilizer	101.81	116.75	100.31	90.57
Crop chemicals	68.37	75.17	47.31	78.57
Crop insurance	25.36	31.03	29.09	19.46
Fuel & oil	82.77	87.47	81.02	76.10
Repairs	112.40	153.29	107.43	83.48
Custom hire	14.41	9.18	9.76	29.48
Hired labor	34.95	40.73	39.42	38.07
Machinery leases	0.61	0.66	-	0.37
Hauling and trucking	6.64	23.32	-	-
Operating interest	12.10	5.69	5.97	11.75
Miscellaneous	6.68	8.64	4.00	10.65
Total direct expenses per acre	671.61	759.06	607.02	646.33
Return over direct exp per acre	184.96	23.89	213.33	366.61
Overhead Expenses				
Hired labor	42.86	67.32	44.27	25.87
Machinery leases	10.64	2.16	31.58	14.67
Building leases	1.95	2.76	0.00	1.93
RE & pers. property taxes	25.42	20.96	26.20	27.71
Farm insurance	22.21	30.12	15.68	29.95
Utilities	14.07	18.38	6.41	15.66
Dues & professional fees	8.19	10.09	5.44	5.96
Interest	37.27	36.26	27.40	41.71
Mach & bldg depreciation	143.64	147.33	178.86	126.95
Miscellaneous	7.98	5.67	7.11	4.94
Total overhead expenses per acre	314.22	341.04	342.95	295.35
Total dir & ovhd expenses per acre	985.83	1,100.10	949.98	941.68
Net return per acre	-129.26	-317.15	-129.63	71.26
Government payments	2.00	-	14.60	-
Net return with govt pmts	-127.25	-317.15	-115.02	71.26
Labor & management charge	116.51	94.39	133.47	147.29
Net return over lbr & mgt	-243.76	-411.54	-248.49	-76.03
Cost of Production				
Total direct expense per ton	28.85	34.51	28.40	24.06
Total dir & ovhd exp per ton	42.35	50.02	44.44	35.05
Less govt & other income	41.55	49.63	42.37	34.03
With labor & management	46.56	53.92	48.62	39.52
Net value per unit	36.09	35.20	36.99	36.69
Machinery cost per acre	363.49	397.64	411.11	334.13
Est. labor hours per acre	5.64	6.26	4.95	5.48

Crop Enterprise Analysis
Minnesota and North Dakota Business Management Education
Red River Valley, 2014
(Farms Sorted By Return to Overhead)

Sugar Beets on Owned Land Including Joint Venture

	<u>Avg. Of All Farms</u>
Number of farms	22
Yield per acre (ton)	22.11
Operators share of yield %	100.00
Value per ton	35.99
Total product return per acre	795.94
Crop insurance per acre	9.78
Other crop income per acre	8.40
Gross return per acre	814.12
Direct Expenses	
Seed	201.11
Fertilizer	109.02
Crop chemicals	58.34
Crop insurance	29.32
Fuel & oil	83.85
Repairs	79.57
Custom hire	8.39
Hired labor	18.53
Stock/quota lease	78.56
Machinery leases	3.73
Hauling and trucking	7.24
Operating interest	17.14
Miscellaneous	17.82
Total direct expenses per acre	712.64
Return over direct exp per acre	101.48
Overhead Expenses	
Custom hire	3.81
Hired labor	42.18
Machinery leases	4.49
Building leases	1.07
RE & pers. property taxes	25.05
Farm insurance	10.76
Utilities	11.03
Dues & professional fees	6.33
Interest	72.09
Mach & bldg depreciation	116.45
Miscellaneous	12.24
Total overhead expenses per acre	305.50
Total dir & ovhd expenses per acre	1,018.14
Net return per acre	-204.02
Government payments	3.46
Net return with govt pmts	-200.56
Labor & management charge	95.64
Net return over lbr & mgt	-296.20
Cost of Production	
Total direct expense per ton	32.23
Total dir & ovhd exp per ton	46.04
Less govt & other income	45.06
With labor & management	49.39
Net value per unit	35.99
Machinery cost per acre	301.59
Est. labor hours per acre	5.36

Crop Enterprise Analysis
Minnesota and North Dakota Business Management Education
Red River Valley, 2014
(Farms Sorted By Return to Overhead)

Sugar Beets on Cash Rent Excluding Joint Venture

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	51	10	10	11
Yield per acre (ton)	22.79	21.80	22.34	25.71
Operators share of yield %	100.00	100.00	100.00	100.00
Value per ton	35.89	32.81	37.96	37.81
Total product return per acre	817.78	715.17	848.01	971.93
Crop insurance per acre	7.42	4.38	6.60	23.35
Other crop income per acre	6.05	2.49	9.94	5.77
Gross return per acre	831.25	722.04	864.54	1,001.05
Direct Expenses				
Seed	204.70	209.05	202.15	192.62
Fertilizer	106.98	113.26	117.52	101.90
Crop chemicals	69.92	79.82	60.61	63.25
Crop insurance	23.70	25.62	27.02	19.47
Fuel & oil	83.27	86.28	86.35	74.22
Repairs	105.41	121.43	92.78	77.73
Custom hire	13.51	11.25	13.04	11.52
Hired labor	26.00	30.56	20.47	12.63
Land rent	144.77	146.66	143.48	133.91
Machinery leases	0.53	0.65	0.82	-
Hauling and trucking	4.94	7.45	2.95	-
Operating interest	11.08	7.93	17.64	15.11
Miscellaneous	3.57	5.86	1.61	4.94
Total direct expenses per acre	798.37	845.81	786.45	707.29
Return over direct exp per acre	32.89	-123.77	78.09	293.76
Overhead Expenses				
Custom hire	1.60	-	2.65	7.06
Hired labor	61.79	93.24	52.58	31.26
Machinery leases	7.36	4.46	16.23	2.14
Building leases	2.57	2.80	1.18	3.00
Farm insurance	21.43	28.12	23.57	9.81
Utilities	13.26	15.57	11.38	9.76
Dues & professional fees	7.85	8.11	7.67	2.82
Interest	10.38	15.52	9.77	9.42
Mach & bldg depreciation	121.55	132.17	128.91	93.41
Miscellaneous	11.90	9.38	13.77	22.37
Total overhead expenses per acre	259.69	309.38	267.71	191.05
Total dir & ovhd expenses per acre	1,058.05	1,155.20	1,054.16	898.34
Net return per acre	-226.80	-433.16	-189.61	102.71
Government payments	0.49	-	-	-
Net return with govt pmts	-226.31	-433.16	-189.61	102.71
Labor & management charge	101.92	96.60	106.66	96.01
Net return over lbr & mgt	-328.23	-529.76	-296.27	6.70
Cost of Production				
Total direct expense per ton	35.04	38.80	35.20	27.51
Total dir & ovhd exp per ton	46.43	53.00	47.19	34.94
Less govt & other income	45.82	52.68	46.45	33.81
With labor & management	50.29	57.11	51.22	37.54
Net value per unit	35.89	32.81	37.96	37.81
Machinery cost per acre	334.41	367.71	344.11	264.44
Est. labor hours per acre	5.70	6.91	5.18	5.18

Crop Enterprise Analysis
Minnesota and North Dakota Business Management Education
Red River Valley, 2014
(Farms Sorted By Return to Overhead)

Sugar Beets on Cash Rent Including Joint Venture

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	40	8	8	8
Yield per acre (ton)	23.09	22.86	24.03	23.24
Operators share of yield %	100.00	100.00	100.00	100.00
Value per ton	35.45	32.45	36.66	35.09
Total product return per acre	818.46	741.76	880.93	815.49
Crop insurance per acre	33.62	4.00	4.79	88.82
Other crop income per acre	5.68	-	1.82	8.44
Gross return per acre	857.76	745.76	887.53	912.75
Direct Expenses				
Seed	206.46	217.78	220.50	185.56
Fertilizer	106.53	127.02	98.07	100.23
Crop chemicals	65.16	67.83	49.52	53.60
Crop insurance	24.41	22.26	25.81	21.65
Fuel & oil	73.83	76.39	73.46	67.57
Repairs	78.02	106.94	74.13	70.71
Custom hire	14.15	6.48	11.51	10.58
Hired labor	26.30	38.81	32.19	16.64
Land rent	128.23	160.02	108.76	116.52
Stock/quota lease	61.74	118.96	95.53	18.39
Machinery leases	1.35	1.11	-	0.98
Hauling and trucking	4.72	16.08	-	-
Operating interest	17.04	15.85	12.98	22.89
Miscellaneous	9.93	4.85	0.79	2.23
Total direct expenses per acre	817.87	980.39	803.27	687.54
Return over direct exp per acre	39.89	-234.63	84.27	225.21
Overhead Expenses				
Custom hire	3.21	1.23	0.35	7.04
Hired labor	46.28	65.67	50.92	33.95
Machinery leases	10.26	4.53	19.41	11.07
Building leases	5.53	9.51	0.02	1.92
Farm insurance	15.49	27.69	18.65	14.06
Utilities	10.54	14.03	8.91	9.12
Dues & professional fees	7.68	7.53	12.32	6.86
Interest	13.03	16.98	10.58	16.03
Mach & bldg depreciation	102.40	129.51	98.85	88.17
Miscellaneous	9.83	5.65	11.25	10.76
Total overhead expenses per acre	224.24	282.32	231.27	198.98
Total dir & ovhd expenses per acre	1,042.11	1,262.71	1,034.54	886.52
Net return per acre	-184.36	-516.95	-147.00	26.23
Government payments	1.35	-	2.19	-
Net return with govt pmts	-183.01	-516.95	-144.81	26.23
Labor & management charge	92.36	97.75	98.04	77.01
Net return over lbr & mgt	-275.37	-614.70	-242.86	-50.77
Cost of Production				
Total direct expense per ton	35.42	42.89	33.42	29.58
Total dir & ovhd exp per ton	45.13	55.24	43.05	38.14
Less govt & other income	43.37	55.07	42.68	33.96
With labor & management	47.37	59.34	46.76	37.27
Net value per unit	35.45	32.45	36.66	35.09
Machinery cost per acre	288.62	340.81	281.24	263.59
Est. labor hours per acre	4.94	6.10	4.29	4.14

Crop Enterprise Analysis
Minnesota and North Dakota Business Management Education
Red River Valley, 2014
(Farms Sorted By Return to Overhead)

Wheat, Spring on Owned Land

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	67	13	14	14
Yield per acre (bu.)	66.03	58.86	64.88	76.09
Operators share of yield %	100.00	100.00	100.00	100.00
Value per bu.	5.79	5.51	5.75	6.23
Total product return per acre	382.63	324.52	372.87	474.12
Hedging gains/losses per acre	0.28	-	1.22	-
Crop insurance per acre	6.93	10.43	2.25	7.18
Other crop income per acre	3.71	4.70	7.25	2.16
Gross return per acre	393.55	339.65	383.59	483.45
Direct Expenses				
Seed	23.50	20.91	26.09	24.61
Fertilizer	97.17	95.98	91.92	98.80
Crop chemicals	30.99	32.81	28.20	34.83
Crop insurance	16.61	18.61	16.63	15.59
Drying expense	0.94	1.01	0.02	1.78
Fuel & oil	22.34	26.03	21.48	23.96
Repairs	25.27	30.69	26.03	23.42
Custom hire	8.42	12.55	11.06	4.36
Hired labor	2.96	0.76	5.62	3.50
Machinery leases	1.44	0.64	2.42	1.96
Operating interest	3.86	5.58	4.20	2.97
Miscellaneous	5.48	8.07	11.42	2.30
Total direct expenses per acre	238.99	253.62	245.09	238.08
Return over direct exp per acre	154.56	86.03	138.50	245.37
Overhead Expenses				
Custom hire	0.18	0.57	-	0.00
Hired labor	10.36	14.84	9.99	8.55
Machinery leases	1.11	3.28	1.11	0.15
Building leases	1.08	0.41	1.64	0.71
RE & pers. property taxes	19.21	22.29	19.24	19.10
Farm insurance	7.35	7.30	5.80	8.91
Utilities	4.41	4.86	3.60	3.75
Dues & professional fees	3.73	4.31	2.96	3.70
Interest	31.93	53.56	32.23	18.58
Mach & bldg depreciation	35.14	42.32	32.79	35.55
Miscellaneous	3.71	4.10	3.34	4.36
Total overhead expenses per acre	118.22	157.83	112.70	103.36
Total dir & ovhd expenses per acre	357.21	411.45	357.79	341.44
Net return per acre	36.34	-71.80	25.80	142.02
Government payments	2.10	1.63	1.27	3.21
Net return with govt pmts	38.43	-70.17	27.07	145.22
Labor & management charge	25.99	29.49	22.83	22.76
Net return over lbr & mgt	12.44	-99.67	4.24	122.47
Cost of Production				
Total direct expense per bu.	3.62	4.31	3.78	3.13
Total dir & ovhd exp per bu.	5.41	6.99	5.51	4.49
Less govt & other income	5.21	6.71	5.33	4.32
With labor & management	5.61	7.21	5.68	4.62
Net value per unit	5.80	5.51	5.77	6.23
Machinery cost per acre	93.52	114.74	93.90	89.21
Est. labor hours per acre	1.51	1.64	1.53	1.53

Crop Enterprise Analysis
Minnesota and North Dakota Business Management Education
Red River Valley, 2014
(Farms Sorted By Return to Overhead)

Wheat, Spring on Cash Rent

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	101	20	20	21
Yield per acre (bu.)	66.36	59.87	61.56	74.84
Operators share of yield %	100.00	100.00	100.00	100.00
Value per bu.	5.75	5.54	5.59	5.97
Total product return per acre	381.25	331.67	344.12	446.59
Hedging gains/losses per acre	2.77	4.73	3.96	5.00
Crop insurance per acre	8.30	7.44	6.71	12.48
Other crop income per acre	2.50	5.73	-	3.22
Gross return per acre	394.81	349.57	354.79	467.29
Direct Expenses				
Seed	23.70	27.79	24.42	19.46
Fertilizer	99.48	103.86	92.58	101.89
Crop chemicals	29.98	28.66	26.83	33.05
Crop insurance	15.80	18.14	14.99	13.91
Drying expense	1.62	2.12	1.59	2.29
Fuel & oil	21.18	23.47	20.07	20.41
Repairs	23.69	29.64	23.08	20.19
Custom hire	8.52	10.89	10.31	4.93
Hired labor	3.04	4.29	3.99	1.79
Land rent	118.20	145.39	110.82	109.91
Machinery leases	1.53	0.10	1.21	3.08
Operating interest	3.84	4.54	1.75	3.78
Miscellaneous	4.71	7.03	3.50	2.76
Total direct expenses per acre	355.28	405.92	335.13	337.46
Return over direct exp per acre	39.53	-56.36	19.66	129.83
Overhead Expenses				
Custom hire	0.33	0.35	1.37	0.05
Hired labor	12.69	19.29	14.99	10.63
Machinery leases	2.09	3.17	0.36	2.04
Building leases	0.84	0.43	0.90	0.81
Farm insurance	6.78	7.95	5.65	6.76
Utilities	4.01	3.94	3.74	3.89
Dues & professional fees	3.48	6.59	3.03	2.76
Interest	3.14	2.65	1.85	3.75
Mach & bldg depreciation	30.98	36.87	25.98	29.41
Miscellaneous	3.54	2.96	3.68	2.24
Total overhead expenses per acre	67.87	84.20	61.55	62.33
Total dir & ovhd expenses per acre	423.16	490.12	396.67	399.79
Net return per acre	-28.35	-140.55	-41.88	67.50
Government payments	1.81	2.44	5.24	0.84
Net return with govt pmts	-26.54	-138.11	-36.64	68.34
Labor & management charge	25.84	26.35	26.16	25.57
Net return over lbr & mgt	-52.38	-164.46	-62.80	42.77
Cost of Production				
Total direct expense per bu.	5.35	6.78	5.44	4.51
Total dir & ovhd exp per bu.	6.38	8.19	6.44	5.34
Less govt & other income	6.15	7.85	6.19	5.05
With labor & management	6.53	8.29	6.61	5.40
Net value per unit	5.79	5.62	5.65	6.03
Machinery cost per acre	89.24	105.37	83.17	81.77
Est. labor hours per acre	1.40	1.55	1.29	1.24

MyFarm Financial Scorecard

Year: _____

Name: _____

Liquidity

This Year

5-Year Ave

Strong

Vulnerable

Current ratio

1.7

1.1

Working capital

25%

10%

Working cap to gross revenue

Solvency (market)

Note: These solvency ratios include deferred liabilities

Farm debt/asset ratio

30%

60%

Farm equity/asset ratio

70%

40%

Farm debt/equity ratio

0.43

1.50

Profitability (Cost)

Rate of return on farm assets

8%

4%

Rate of return on farm equity

10%

3%

Operating profit margin

25%

15%

Net farm income

EBITDA

Repayment Capacity (Accrual)

Capital debt repay capacity

Capital debt repay margin

Replacement margin

Term-debt coverage ratio

Replacement margin ratio

1.50

1.20

1.40

1.10

Financial Efficiency

Asset-turnover rate (market)

45%

30%

Operating-expense ratio

60%

80%

Depreciation-expense ratio

5%

15%

Interest-expense ratio

5%

10%

Net farm income ratio

20%

10%