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Farm Business Management Education

Red River Valley 2012 Report

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Minnesota Farm Business Management Education
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RED RIVER VALLEY AVERAGES
2012 ANNUAL REPORT

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North Dakota	Instructor
Fargo (NDSCS)	Ron Smithberg
Wahpeton (NDSCS)	Keith Torgerson
Minnesota	
NCTC-Detroit Lakes	Mark Berg
NCTC-Fergus Falls	Paul Oehlke
NCTC-Hallock	Jerod Hanson
NCTC-Mahnomen/Ulen	Randy Zimmerman
NCTC-Moorhead	Rick Morgan
	Josh Tjosaas
NCTC-Red Lake Falls	Greg Kalinoski
NCTC-Thief River Falls	Greg Dvergsten
	ADawn Melbye
	Ron Dvergsten

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2012 Red River Valley Report
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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 2012 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 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."

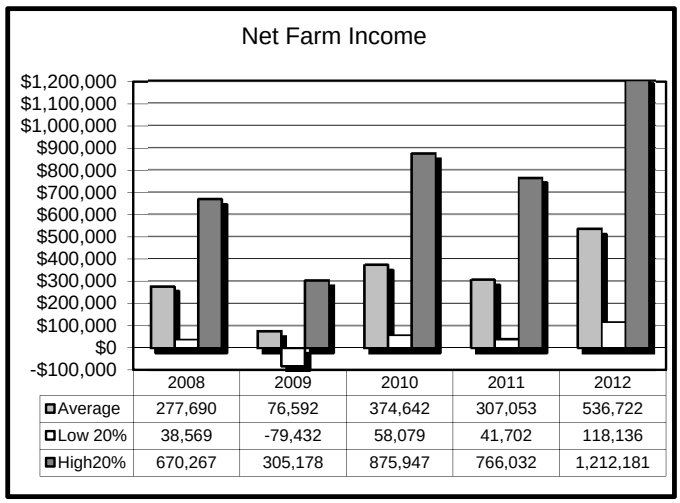
Operator and Labor Information

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

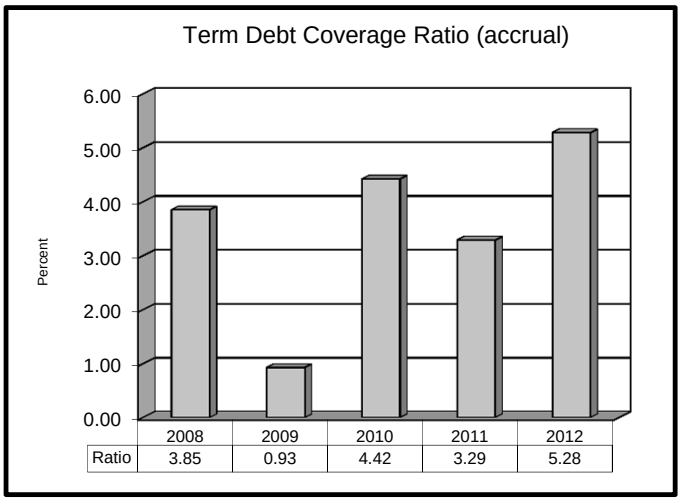
Nonfarm Summary

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

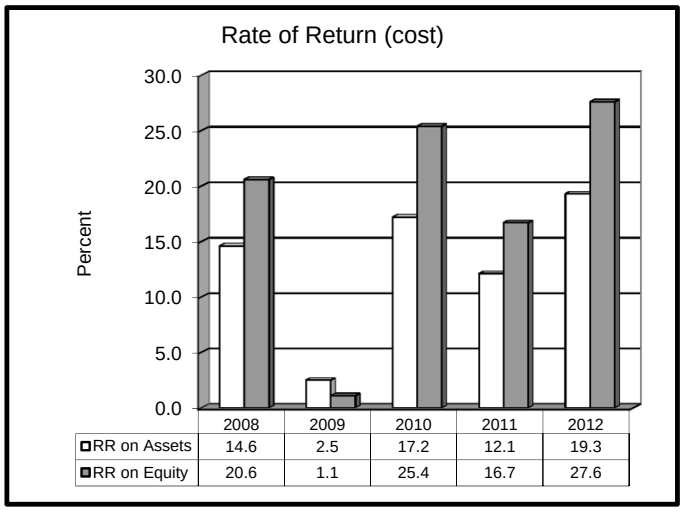
Five Year Trend of Financial Measures
Red River Valley Farm Business Management Education



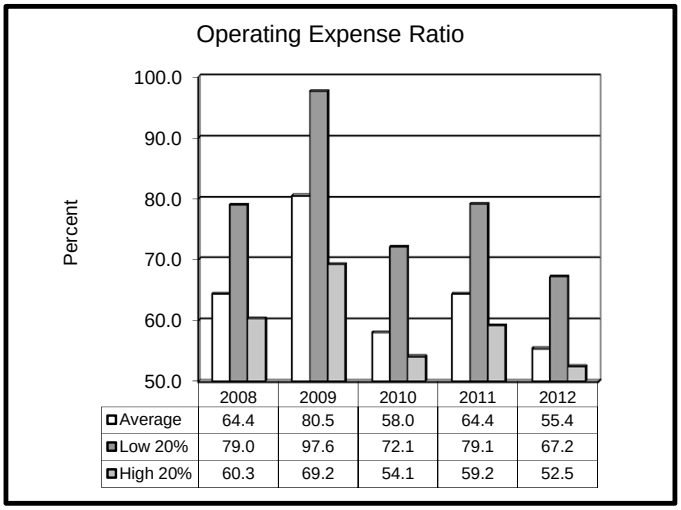
	2008	2009	2010	2011	2012
Average	277,690	76,592	374,642	307,053	536,722
Low 20%	38,569	-79,432	58,079	41,702	118,136
High20%	670,267	305,178	875,947	766,032	1,212,181



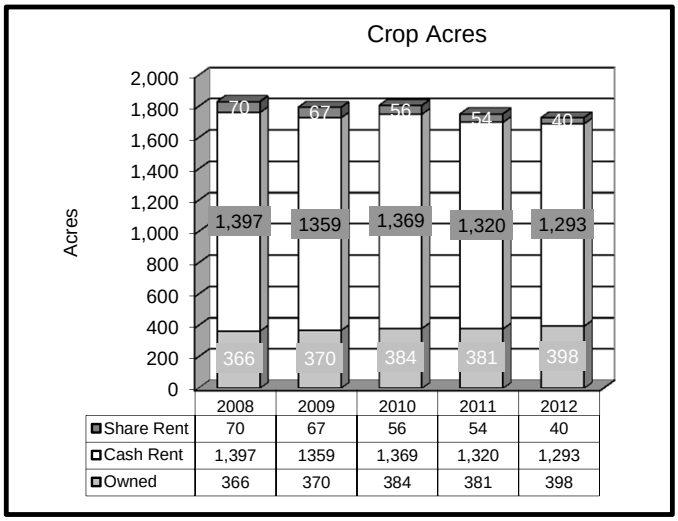
	2008	2009	2010	2011	2012
Ratio	3.85	0.93	4.42	3.29	5.28



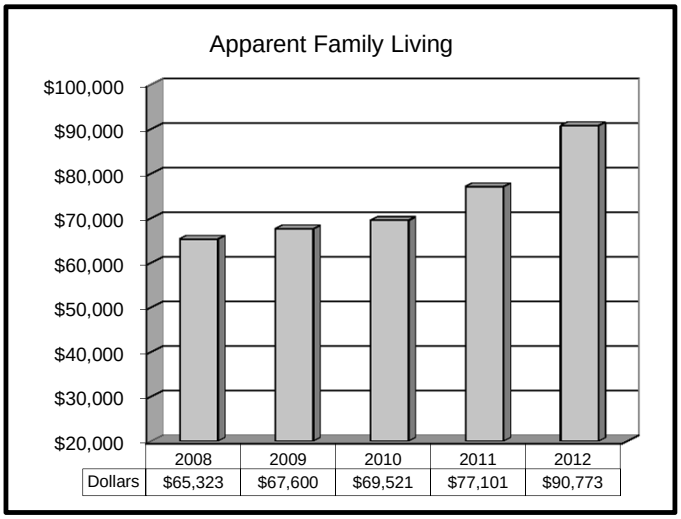
	2008	2009	2010	2011	2012
RR on Assets	14.6	2.5	17.2	12.1	19.3
RR on Equity	20.6	1.1	25.4	16.7	27.6



	2008	2009	2010	2011	2012
Average	64.4	80.5	58.0	64.4	55.4
Low 20%	79.0	97.6	72.1	79.1	67.2
High 20%	60.3	69.2	54.1	59.2	52.5



	2008	2009	2010	2011	2012
Share Rent	70	67	56	54	40
Cash Rent	1,397	1359	1,369	1,320	1,293
Owned	366	370	384	381	398



	2008	2009	2010	2011	2012
Dollars	$65,323	$67,600	$69,521	$77,101	$90,773

Farm Income Statement
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2012
(Farms Sorted By Net Farm Income)

	Avg. Of All Farms	*Low 20%*	*40 - 60%*	*High 20%*
Number of farms	227	45	46	46
Cash Farm Income				
Barley	1,339	608	1,197	1,333
Beans, Black Turtle	4,499	-	8,893	13,309
Beans, Dark Red Kidney	1,780	4,696	-	4,190
Beans, Navy	4,006	-	14,342	-
Beans, Pinto	7,052	3,185	18,956	10,264
Corn	289,703	89,567	245,377	532,041
Hay, Alfalfa	1,378	312	4,272	170
Hay, Mixed	143	-	-	-
Potatoes	10,998	-	-	-
Potatoes, Seed	1,547	-	7,634	-
Rye	576	-	-	-
Soybeans	337,739	122,022	303,169	590,105
Straw	1,567	-	779	6,451
Sugar Beets	243,949	91,005	186,196	556,846
Sunflowers	1,519	-	2,409	2,861
Sunflowers, Confectionary	489	-	-	1,961
Wheat, Spring	135,873	44,344	124,465	255,967
Wheat, Winter	572	-	-	-
Soybeans, Organic	878	1,669	-	-
Soybeans, Food	2,568	2,059	4,468	416
Corn, Organic	361	928	-	-
Other Crops	2,533	-	-	12,540
Miscellaneous crop income	77	-	9	-
Beef Cow-Calf, Beef Calves	187	378	-	-
Beef Backgrounding	423	594	520	-
Hogs, Farrow To Finish, Raised Ho	6,609	19,370	-	13,667
Beef Finish Cull Cows	1,758	-	-	8,560
Cull breeding livestock	445	-	286	1,912
Misc. livestock income	48	19	-	-
Direct, CCP & ACRE pymts	22,152	7,270	20,035	40,018
CRP payments	1,128	283	2,204	986
Other government payments	5,883	966	5,297	11,420
Custom work income	7,588	1,504	5,978	18,138
Patronage dividends, cash	14,029	4,692	11,804	31,509
Crop insurance income	13,891	9,627	10,559	25,245
Property insurance income	4,245	1,514	2,604	6,434
Sale of resale items	2,601	844	441	2,480
Other farm income	31,694	10,074	25,697	83,765
Gross Cash Farm Income	1,163,839	417,529	1,007,592	2,232,587

Farm Income Statement (Continued)
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2012
(Farms Sorted By Net Farm Income)

	Avg. Of All Farms	*Low 20%*	*40 - 60%*	*High 20%*
Number of farms	227	45	46	46
Cash Farm Expense				
Seed	132,150	47,440	116,234	249,013
Fertilizer	153,004	49,636	126,239	286,375
Crop chemicals	67,921	20,070	57,362	146,507
Crop insurance	44,346	15,308	37,286	84,914
Drying expense	1,565	127	1,397	3,690
Storage	283	-	574	341
Irrigation energy	414	-	522	-
Crop custom hire	6,784	5,953	6,269	4,731
Hauling and trucking	1,608	464	1,286	537
Crop marketing	1,233	65	1,473	2,226
Crop miscellaneous	2,312	983	2,800	5,033
Consultants	2,967	1,428	2,678	5,864
Feeder livestock purchase	2,210	-	-	10,474
Purchased feed	3,560	9,620	353	7,596
Breeding fees	75	175	-	158
Veterinary	254	300	27	851
Supplies	295	690	126	369
Livestock marketing	213	919	31	118
Interest	32,705	12,444	29,618	58,215
CCC buyback	3,745	4,129	14,441	-
Fuel & oil	54,555	18,303	44,703	110,123
Repairs	70,756	28,147	66,916	133,881
Custom hire	7,484	4,361	5,153	15,368
Hired labor	38,094	10,461	29,817	89,474
Land rent	137,992	44,263	114,985	283,906
Stock/quota lease	25,174	12,236	22,046	52,155
Machinery leases	11,124	6,312	11,035	20,573
Building leases	1,651	1,219	1,611	1,772
Real estate taxes	7,332	2,499	6,338	13,733
Farm insurance	12,942	4,562	10,531	25,149
Utilities	8,416	4,493	7,556	13,951
Dues & professional fees	6,462	3,520	5,415	11,570
Purchase of resale items	2,586	1,713	-	8,734
Miscellaneous	8,518	6,184	9,961	12,198
Total cash expense	850,730	318,023	734,783	1,659,596
Net cash farm income	313,108	99,506	272,809	572,990
Inventory Changes				
Prepaids and supplies	23,331	3,871	11,558	56,153
Accounts receivable	19,645	9,913	-3,325	78,182
Hedging accounts	-1,241	-87	966	-4,203
Other current assets	340	1,294	-83	59
Crops and feed	240,563	21,874	206,009	609,720
Market livestock	1,296	-976	182	6,670
Breeding livestock	-109	-491	-54	-209
Other assets	9,516	2,134	9,393	21,202
Accounts payable	-331	-2,009	1,965	-1,265
Accrued interest	-1,882	-713	-7,447	-1,262
Total inventory change	291,127	34,807	219,164	765,047
Net operating profit	604,235	134,313	491,973	1,338,038
Depreciation				
Machinery and equipment	-62,819	-14,861	-55,811	-129,491
Titled vehicles	-4,600	-3,705	-4,527	-5,978
Buildings and improvements	-5,424	-1,677	-5,854	-10,331
Total depreciation	-72,842	-20,242	-66,192	-145,800
Net farm income from operations	531,393	114,071	425,782	1,192,237
Gain or loss on capital sales	5,329	4,065	322	19,944
Net farm income	536,722	118,136	426,103	1,212,181

Inventory Changes
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2012
(Farms Sorted By Net Farm Income)

	Avg. Of All Farms	*Low 20%*	*40 - 60%*	*High 20%*
Number of farms	227	45	46	46
Net cash farm income	313,108	99,506	272,809	572,990
Crops and Feed				
Ending inventory	759,158	189,768	592,980	1,669,253
Beginning inventory	518,595	167,894	386,972	1,059,533
Inventory change	240,563	21,874	206,009	609,720
Market Livestock				
Ending inventory	4,409	7,255	848	12,052
Beginning inventory	3,113	8,232	666	5,382
Inventory change	1,296	-976	182	6,670
Accts Receivable				
Ending inventory	83,935	27,116	22,953	224,266
Beginning inventory	64,289	17,202	26,278	146,083
Inventory change	19,645	9,913	-3,325	78,182
Prepaid Expenses and Supplies				
Ending inventory	147,147	36,328	118,202	308,133
Beginning inventory	123,816	32,457	106,643	251,980
Inventory change	23,331	3,871	11,558	56,153
Hedging Activities				
Ending inventory	4,914	212	5,767	14,730
Withdrawals	1,644	-	1,079	4,544
Beginning inventory	4,475	172	3,977	12,795
Deposits	3,325	127	1,902	10,682
Gain or loss	-1,241	-87	966	-4,203
Other Current Assets				
Ending inventory	1,214	1,380	161	1,841
Beginning inventory	875	87	245	1,781
Inventory change	340	1,294	-83	59
Breeding Livestock				
Ending inventory	1,308	2,873	1,261	992
Capital sales	64	-	-	264
Beginning inventory	1,423	3,164	1,261	1,465
Capital purchases	58	200	54	-
Depreciation, capital adjust	-109	-491	-54	-209
Other Capital Assets				
Ending inventory	245,226	85,153	200,689	535,559
Capital sales	2,761	3,822	217	6,778
Beginning inventory	226,791	75,937	183,770	496,320
Capital purchases	11,680	10,904	7,743	24,814
Depreciation, capital adjust	9,516	2,134	9,393	21,202
Accounts Payable				
Beginning inventory	25,752	9,093	22,459	43,371
Ending inventory	26,084	11,102	20,494	44,636
Inventory change	-331	-2,009	1,965	-1,265
Accrued Interest				
Beginning inventory	12,982	4,971	11,984	21,055
Ending inventory	14,865	5,684	19,434	22,318
Inventory change	-1,882	-713	-7,447	-1,262
Total inventory change	291,127	34,807	219,164	765,047
Net operating profit	604,235	134,313	491,973	1,338,038

Depreciation
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2012
(Farms Sorted By Net Farm Income)

	Avg. Of All Farms	*Low 20%*	*40 - 60%*	*High 20%*
Number of farms	227	45	46	46
Net operating profit	604,235	134,313	491,973	1,338,038
Machinery and Equipment				
Ending inventory	666,597	174,401	569,696	1,338,583
Capital sales	18,283	1,471	25,855	44,443
Beginning inventory	560,949	138,566	484,468	1,146,186
Capital purchases	186,750	52,167	166,895	366,331
Depreciation, capital adjust.	-62,819	-14,861	-55,811	-129,491
Titled Vehicles				
Ending inventory	45,046	31,607	44,629	64,540
Capital sales	587	522	1,595	-
Beginning inventory	33,557	25,519	38,852	45,133
Capital purchases	16,676	10,315	11,899	25,385
Depreciation, capital adjust.	-4,600	-3,705	-4,527	-5,978
Buildings and Improvements				
Ending inventory	173,895	44,230	159,826	354,731
Capital sales	-	-	-	-
Beginning inventory	135,244	36,177	113,788	286,862
Capital purchases	44,075	9,730	51,892	78,200
Depreciation, capital adjust.	-5,424	-1,677	-5,854	-10,331
Total depreciation, capital adj.	-72,842	-20,242	-66,192	-145,800
Net farm income from operations	531,393	114,071	425,782	1,192,237
Gain or loss on capital sales	5,329	4,065	322	19,944
Net farm income	536,722	118,136	426,103	1,212,181

Profitability Measures
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2012
(Farms Sorted By Net Farm Income)

	Avg. Of All Farms	*Low 20%*	*40 - 60%*	*High 20%*
Number of farms	227	45	46	46
Profitability (assets valued at cost)				
Net farm income from operations	531,393	114,071	425,782	1,192,237
Rate of return on assets	19.3 %	11.1 %	18.2 %	21.7 %
Rate of return on equity	27.6 %	17.1 %	27.6 %	30.1 %
Operating profit margin	33.6 %	20.0 %	31.5 %	37.5 %
Asset turnover rate	57.4 %	55.6 %	57.8 %	57.8 %
Farm interest expense	34,587	13,157	37,065	59,478
Value of operator lbr and mgmt.	87,608	39,378	78,707	157,767
Return on farm assets	478,372	87,850	384,140	1,093,948
Average farm assets	2,482,919	789,511	2,109,653	5,049,763
Return on farm equity	443,785	74,693	347,075	1,034,470
Average farm equity	1,606,785	436,369	1,258,261	3,435,778
Value of farm production	1,425,133	438,617	1,220,327	2,917,204

Liquidity & Repayment Capacity Measures
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2012
(Farms Sorted By Net Farm Income)

	Avg. Of All Farms	*Low 20%*	*40 - 60%*	*High 20%*
Number of farms	227	45	46	46
Liquidity				
Current ratio	2.61	1.81	2.25	3.19
Working capital	542,351	115,284	446,365	1,352,346
Working capital to gross inc	44.1 %	27.2 %	37.1 %	52.9 %
Current assets	878,901	258,482	802,980	1,968,972
Current liabilities	336,550	143,198	356,615	616,626
Gross revenues (accrual)	1,228,844	424,458	1,202,194	2,555,413
Repayment capacity				
Net farm income from operations	531,393	114,071	425,782	1,192,237
Depreciation	72,842	20,242	66,192	145,800
Personal income	20,105	30,229	19,951	19,738
Family living/owner withdrawals	-91,103	-62,853	-81,381	-165,206
Payments on personal debt	-7,247	-6,165	-7,375	-12,582
Income taxes paid	-29,517	-10,265	-27,432	-60,563
Interest on term debt	25,949	10,030	27,327	48,073
Capital debt repayment capacity	522,422	95,290	423,063	1,167,498
Scheduled term debt payments	-98,923	-32,739	-97,946	-199,224
Capital debt repayment margin	423,499	62,550	325,117	968,274
Cash replacement allowance	-25,029	-6,662	-18,998	-48,130
Replacement margin	398,470	55,888	306,118	920,144
Term debt coverage ratio	5.28	2.91	4.32	5.86
Replacement coverage ratio	4.21	2.42	3.62	4.72

Balance Sheet at Cost Values
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2012
(Farms Sorted By Net Farm Income)

	Avg. Of All Farms	*Low 20%*	*40 - 60%*	*High 20%*
Number of farms	193	43	43	30
Assets				
Current Farm Assets				
Cash and checking balance	36,205	19,766	20,510	96,359
Prepaid expenses & supplies	127,990	33,143	112,634	295,347
Growing crops	309	1,387	-	-
Accounts receivable	76,861	25,812	23,463	229,449
Hedging accounts	2,139	222	4,282	3,599
Crops held for sale or feed	596,067	163,577	570,236	1,294,775
Crops under government loan	34,300	7,490	70,776	33,708
Market livestock held for sale	4,278	7,085	907	14,072
Other current assets	751	-	173	1,662
Total current farm assets	878,901	258,482	802,980	1,968,972
Intermediate Farm Assets				
Breeding livestock	855	1,648	1,349	-
Machinery and equipment	543,759	164,777	551,799	1,101,873
Titled vehicles	38,265	27,375	47,742	47,561
Other intermediate assets	132,514	35,680	173,354	286,438
Total intermediate farm assets	715,393	229,480	774,244	1,435,873
Long Term Farm Assets				
Farm land	545,647	228,702	571,521	1,125,803
Buildings and improvements	138,629	45,195	146,791	266,368
Other long-term assets	53,291	15,944	28,657	140,044
Total long-term farm assets	737,567	289,840	746,968	1,532,215
Total Farm Assets	2,331,862	777,803	2,324,192	4,937,060
Total Nonfarm Assets	269,425	139,164	306,512	584,774
Total Assets	2,601,287	916,967	2,630,704	5,521,834
Liabilities				
Current Farm Liabilities				
Accrued interest	13,407	5,578	19,430	17,463
Accounts payable	22,871	9,614	19,918	39,114
Current notes	218,705	100,081	223,887	409,315
Government crop loans	10,423	2,304	21,019	11,718
Principal due on term debt	71,145	25,622	72,361	139,017
Total current farm liabilities	336,550	143,198	356,615	616,626
Total intermediate farm liabs	165,451	64,016	193,729	312,236
Total long term farm liabilities	336,327	169,927	383,798	587,439
Total farm liabilities	838,328	377,140	934,142	1,516,301
Total nonfarm liabilities	85,623	60,381	90,376	195,248
Total liabilities	923,951	437,521	1,024,518	1,711,550
Net worth (farm and nonfarm)	1,677,336	479,446	1,606,185	3,810,285
Net worth change	392,774	71,728	361,405	914,494
Percent net worth change	31 %	18 %	29 %	32 %
Ratio Analysis				
Current farm liabilities / assets	38 %	55 %	44 %	31 %
Intermediate farm liab. / assets	23 %	28 %	25 %	22 %
Long term farm liab. / assets	46 %	59 %	51 %	38 %
Total debt to asset ratio	36 %	48 %	39 %	31 %

Balance Sheet at Market Values
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2012
(Farms Sorted By Net Farm Income)

	Avg. Of All Farms	Low 20%	40 - 60%	High 20%
Number of farms	193	43	43	30
Assets				
Current Farm Assets				
Cash and checking balance	36,205	19,766	20,510	96,359
Prepaid expenses & supplies	127,990	33,143	112,634	295,347
Growing crops	309	1,387	-	-
Accounts receivable	76,861	25,812	23,463	229,449
Hedging accounts	2,139	222	4,282	3,599
Crops held for sale or feed	596,067	163,577	570,236	1,294,775
Crops under government loan	34,300	7,490	70,776	33,708
Market livestock held for sale	4,278	7,085	907	14,072
Other current assets	751	-	173	1,662
Total current farm assets	878,901	258,482	802,980	1,968,972
Intermediate Farm Assets				
Breeding livestock	1,249	2,430	1,953	-
Machinery and equipment	681,416	210,183	689,020	1,420,244
Titled vehicles	45,397	29,628	56,670	66,462
Other intermediate assets	204,293	52,896	300,911	403,217
Total intermediate farm assets	932,355	295,137	1,048,553	1,889,923
Long Term Farm Assets				
Farm land	1,120,910	528,634	1,152,400	2,432,946
Buildings and improvements	157,337	50,824	170,567	319,857
Other long-term assets	59,769	15,995	33,922	174,530
Total long-term farm assets	1,338,016	595,452	1,356,889	2,927,333
Total Farm Assets	3,149,272	1,149,071	3,208,422	6,786,229
Total Nonfarm Assets	311,757	158,785	353,269	688,055
Total Assets	3,461,030	1,307,856	3,561,691	7,474,284
Liabilities				
Current Farm Liabilities				
Accrued interest	13,407	5,578	19,430	17,463
Accounts payable	22,871	9,614	19,918	39,114
Current notes	218,705	100,081	223,887	409,315
Government crop loans	10,423	2,304	21,019	11,718
Principal due on term debt	71,145	25,622	72,361	139,017
Total current farm liabilities	336,550	143,198	356,615	616,626
Total intermediate farm liabs	165,451	64,016	193,729	312,236
Total long term farm liabilities	336,327	169,927	383,798	587,439
Total farm liabilities	838,328	377,140	934,142	1,516,301
Total nonfarm liabilities	85,623	60,381	90,376	195,248
Total liabs excluding deferreds	923,951	437,521	1,024,518	1,711,550
Total deferred liabilities	389,471	128,604	401,483	906,242
Total liabilities	1,313,422	566,125	1,426,001	2,617,791
Retained earnings	1,677,336	479,446	1,606,185	3,810,285
Market valuation equity	470,271	262,286	529,505	1,046,208
Net worth (farm and nonfarm)	2,147,607	741,731	2,135,690	4,856,493
Net worth excluding deferreds	2,537,078	870,335	2,537,173	5,762,735
Net worth change	536,913	156,681	519,930	1,310,086
Percent net worth change	33 %	27 %	32 %	37 %
Ratio Analysis				
Current farm liabilities / assets	38 %	55 %	44 %	31 %
Intermediate farm liab. / assets	18 %	22 %	18 %	17 %
Long term farm liab. / assets	25 %	29 %	28 %	20 %
Total debt to asset ratio	38 %	43 %	40 %	35 %
Debt to assets excl deferreds	27 %	33 %	29 %	23 %

Statement Of Cash Flows
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2012
(Farms Sorted By Net Farm Income)

	Avg. Of All Farms	*Low 20%*	*40 - 60%*	*High 20%*
Number of farms	227	45	46	46
Beginning cash (farm & nonfarm)	64,457	12,750	49,509	155,004
Cash Provided By Operating Activities				
Gross cash farm income	1,163,839	417,529	1,007,592	2,232,587
Total cash farm expense	-850,730	-318,023	-734,783	-1,659,596
Net cash from hedging transactions	-1,680	-127	-824	-6,138
Cash provided by operating	311,428	99,379	271,986	566,853
Cash Provided By Investing Activities				
Sale of breeding livestock	64	-	-	264
Sale of machinery & equipment	18,895	1,808	26,186	44,745
Sale of titled vehicles	587	522	1,595	-
Sale of farm land	2,387	-	-	11,384
Sale of farm buildings	-	-	-	-
Sale of other farm assets	7,479	7,550	209	26,420
Sale of nonfarm assets	5,236	3,390	1,052	14,754
Purchase of breeding livestock	-58	-200	-54	-
Purchase of machinery & equip.	-186,750	-52,167	-166,895	-366,331
Purchase of titled vehicles	-16,676	-10,315	-11,899	-25,385
Purchase of farm land	-88,247	-17,532	-98,808	-202,340
Purchase of farm buildings	-44,075	-9,730	-51,892	-78,200
Purchase of other farm assets	-11,680	-10,904	-7,743	-24,814
Purchase of nonfarm assets	-33,920	-11,844	-32,064	-85,007
Cash provided by investing	-346,757	-99,421	-340,314	-684,512
Cash Provided By Financing Activities				
Money borrowed	585,324	217,881	648,345	1,123,800
Principal payments	-455,825	-168,007	-505,871	-825,772
Personal income	20,105	30,229	19,951	19,738
Family living/owner withdrawals	-90,773	-62,853	-81,381	-163,576
Income and social security tax	-29,517	-10,265	-27,432	-60,563
Capital contributions	-	-	-	-
Capital distributions	-868	-	-2,174	-
Dividends paid	-330	-	-	-1,630
Cash gifts and inheritances	9,179	1,111	6,685	23,595
Gifts given	-355	-	-734	-866
Other cash flows	-	-	-	-
Cash provided by financing	36,939	8,096	57,389	114,725
Net change in cash balance	1,609	8,054	-10,940	-2,934
Ending cash (farm & nonfarm)	66,067	20,804	38,569	152,070

Financial Standards Measures
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2012
(Farms Sorted By Net Farm Income)

	Avg. Of All Farms	*Low 20%*	*40 - 60%*	*High 20%*
Number of farms	227	45	46	46
Liquidity				
Current ratio	2.61	1.81	2.25	3.19
Working capital	542,351	115,284	446,365	1,352,346
Working capital to gross inc	44.1 %	27.2 %	37.1 %	52.9 %
Solvency (market)				
Farm debt to asset ratio	38 %	43 %	41 %	34 %
Farm equity to asset ratio	62 %	57 %	59 %	66 %
Farm debt to equity ratio	0.62	0.77	0.70	0.52
Profitability (cost)				
Rate of return on farm assets	19.3 %	11.1 %	18.2 %	21.7 %
Rate of return on farm equity	27.6 %	17.1 %	27.6 %	30.1 %
Operating profit margin	33.6 %	20.0 %	31.5 %	37.5 %
Net farm income	536,722	118,136	426,103	1,212,181
EBIDTA	638,823	147,471	529,038	1,397,515
Repayment Capacity				
Capital debt repayment capacity	522,422	95,290	423,063	1,167,498
Capital debt repayment margin	423,499	62,550	325,117	968,274
Replacement margin	398,470	55,888	306,118	920,144
Term debt coverage ratio	5.28	2.91	4.32	5.86
Replacement coverage ratio	4.21	2.42	3.62	4.72
Efficiency				
Asset turnover rate (cost)	57.4 %	55.6 %	57.8 %	57.8 %
Operating expense ratio	55.4 %	67.2 %	56.7 %	52.5 %
Depreciation expense ratio	5.1 %	4.5 %	5.4 %	5.0 %
Interest expense ratio	2.4 %	2.9 %	3.0 %	2.0 %
Net farm income ratio	37.4 %	26.3 %	34.9 %	41.2 %

Crop Production and Marketing Summary
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2012
(Farms Sorted By Net Farm Income)

	Avg. Of All Farms	*Low 20%*	*40 - 60%*	*High 20%*
Number of farms	227	45	46	46
Acreage Summary				
Total acres owned	416	149	419	674
Total crop acres	1,731	603	1,560	3,204
Crop acres owned	398	138	350	697
Crop acres cash rented	1,293	437	1,133	2,461
Crop acres share rented	40	28	77	46
Total pasture acres	1	-	-	-
Percent crop acres owned	23 %	23 %	22 %	22 %
Mach invest/crop acre market	127	123	135	114
Average Price Received (Cash Sales Only)				
Soybeans per bushel	12.98	12.66	13.26	13.26
Wheat, Spring per bushel	8.22	8.46	7.75	8.60
Corn per bushel	5.86	6.00	6.02	5.67
Hay, Alfalfa per ton	158.67	-	-	-
Sunflowers per cwt	26.51	-	-	-
Average Yield Per Acre				
Soybeans (bushel)	39.50	34.25	38.19	42.85
Corn (bushel)	145.76	125.85	143.25	153.10
Wheat, Spring (bushel)	63.08	62.31	62.09	65.03
Sugar Beets (ton)	26.54	26.27	27.31	26.49
Soybeans, Food (bushel)	37.57	-	33.65	-
Beans, Pinto (cwt)	18.07	-	17.99	-
Beans, Navy (cwt)	22.25	-	21.90	-
Hay, Alfalfa (ton)	2.93	-	-	-

Operator and Labor Information
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2012
(Farms Sorted By Net Farm Income)

	Avg. Of All Farms	*Low 20%*	*40 - 60%*	*High 20%*
Number of farms	227	45	46	46
Operator Information				
Average number of operators	1.1	0.9	1.0	1.5
Average age of operators	45.5	40.4	48.0	49.6
Average number of years farming	29.4	14.6	24.0	27.6
Results Per Operator				
Working capital	604,924	152,917	445,520	1,096,572
Total assets (market)	3,444,338	1,519,662	3,497,619	5,289,600
Total liabilities	1,306,359	633,304	1,397,581	1,943,606
Net worth (market)	2,137,979	886,358	2,100,038	3,345,995
Net worth excl deferred liabs	2,530,144	1,029,229	2,490,712	3,997,865
Gross farm income	1,276,787	501,679	1,194,707	1,991,535
Total farm expense	803,484	374,494	777,985	1,185,022
Net farm income from operations	473,304	127,185	416,723	806,514
Net nonfarm income	17,907	33,704	19,527	13,352
Family living & tax withdrawals	107,435	81,524	106,498	152,726
Total acres owned	370.9	166.4	410.1	456.2
Total crop acres	1,542.1	672.5	1,526.6	2,167.7
Crop acres owned	354.5	153.5	342.8	471.8
Crop acres cash rented	1,151.8	487.5	1,108.5	1,665.1
Crop acres share rented	35.7	31.5	75.3	30.8
Total pasture acres	1.2	-	-	-
Labor Analysis				
Number of farms	227	45	46	46
Total unpaid labor hours	1,753	1,188	1,767	2,360
Total hired labor hours	1,762	489	1,521	3,489
Total labor hours per farm	3,515	1,677	3,288	5,849
Unpaid hours per operator	1,561	1,325	1,730	1,597

Nonfarm Summary
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2012
(Farms Sorted By Net Farm Income)

	Avg. Of All Farms	*Low 20%*	*40 - 60%*	*High 20%*
Number of farms	227	45	46	46
Nonfarm Income				
Personal wages & salary	16,906	26,305	16,700	16,031
Net nonfarm business income	264	1,002	-479	667
Personal rental income	117	111	-	109
Personal interest income	224	9	27	581
Personal cash dividends	2	-	-	-
Tax refunds	442	972	317	308
Other nonfarm income	2,149	1,830	3,387	2,043
Total nonfarm income	20,105	30,229	19,951	19,738
Gifts and inheritances	9,179	1,111	6,685	23,595

Financial Summary
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2012
(Farms Sorted By Gross Farm Income)

	Avg. Of All Farms	*100,001 - 250,000*	*250,001 - 500,000*	*500,001 - 1,000,000*	*Over 1,000,000*
Number of farms	227	18	20	75	108
Income Statement					
Gross cash farm income	1,163,839	185,497	354,903	737,395	1,833,931
Total cash farm expense	850,730	139,558	250,120	516,275	1,356,898
Net cash farm income	313,108	45,939	104,783	221,120	477,033
Inventory change	291,127	75,009	98,960	211,444	431,780
Depreciation	-72,842	-9,790	-13,389	-49,275	-114,531
Net farm income from operations	531,393	111,157	190,354	383,289	794,282
Gain or loss on capital sales	5,329	10,141	20	418	9,217
Average net farm income	536,722	121,298	190,374	383,707	803,499
Median net farm income	425,176	98,912	184,151	363,636	690,700
Profitability (cost)					
Rate of return on assets	19.3 %	18.2 %	25.1 %	20.6 %	18.7 %
Rate of return on equity	27.6 %	28.3 %	41.1 %	30.3 %	26.4 %
Operating profit margin	33.6 %	37.9 %	36.2 %	36.6 %	32.5 %
Asset turnover rate	57.4 %	48.2 %	69.4 %	56.2 %	57.6 %
Liquidity & Repayment (end of year)					
Current assets	878,901	183,150	302,034	694,690	1,387,800
Current liabilities	336,550	62,971	103,548	264,047	537,572
Current ratio	2.61	2.91	2.92	2.63	2.58
Working capital	542,351	120,179	198,486	430,643	850,228
Working capital to gross inc	44.1 %	47.3 %	44.8 %	46.3 %	43.1 %
Term debt coverage ratio	5.28	4.30	6.91	5.54	5.18
Replacement coverage ratio	4.21	3.67	5.54	4.13	4.21
Solvency (end of year at market)					
Number of sole proprietors	193	18	18	71	80
Total farm assets	3,149,272	922,568	917,010	2,616,939	4,845,801
Total farm liabilities	1,203,138	328,400	383,766	1,008,921	1,838,858
Total assets	3,461,030	1,078,872	1,065,011	2,866,416	5,300,622
Total liabilities	1,313,422	375,446	434,683	1,075,711	2,017,638
Net worth	2,147,607	703,426	630,328	1,790,705	3,282,984
Net worth change	536,913	158,857	175,199	432,050	833,427
Farm debt to asset ratio	38 %	36 %	42 %	39 %	38 %
Total debt to asset ratio	38 %	35 %	41 %	38 %	38 %
Nonfarm Information					
Net nonfarm income	20,105	36,564	28,715	15,063	18,517
Crop Acres					
Total acres owned	416	160	97	386	562
Total crop acres	1,731	359	628	1,223	2,605
Total crop acres owned	398	143	98	371	535
Total crop acres cash rented	1,293	189	495	788	2,041
Total crop acres share rented	40	27	35	64	29

Financial Summary
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2012
(Farms Sorted By Age Of Operator)

	Avg. Of All Farms	*Less Than 31*	*31 - 40*	*41 - 50*	*51 - 60*	*Over 60*
Number of farms	227	27	45	52	80	23
Income Statement						
Gross cash farm income	1,163,839	503,440	943,547	1,350,874	1,398,904	1,129,613
Total cash farm expense	850,730	373,580	681,816	1,007,205	1,017,056	809,055
Net cash farm income	313,108	129,860	261,732	343,669	381,847	320,558
Inventory change	291,127	139,540	213,669	298,952	393,027	248,499
Depreciation	-72,842	-20,039	-49,430	-80,496	-96,981	-79,370
Net farm income from operations	531,393	249,360	425,970	562,125	677,893	489,687
Gain or loss on capital sales	5,329	1,019	-56	4,784	4,890	23,683
Average net farm income	536,722	250,379	425,915	566,909	682,784	513,370
Median net farm income	425,176	259,274	342,713	473,093	596,606	361,026
Profitability (cost)						
Rate of return on assets	19.3 %	27.3 %	23.3 %	19.6 %	18.2 %	15.6 %
Rate of return on equity	27.6 %	58.6 %	34.4 %	30.8 %	24.7 %	20.2 %
Operating profit margin	33.6 %	35.9 %	33.6 %	32.7 %	34.4 %	31.1 %
Asset turnover rate	57.4 %	76.0 %	69.4 %	60.0 %	52.9 %	50.2 %
Liquidity & Repayment (end of year)						
Current assets	878,901	384,494	655,989	899,463	1,245,642	708,097
Current liabilities	336,550	171,116	233,737	430,813	443,602	197,226
Current ratio	2.61	2.25	2.81	2.09	2.81	3.59
Working capital	542,351	213,378	422,252	468,650	802,041	510,871
Working capital to gross inc	44.1 %	33.7 %	39.9 %	35.5 %	50.2 %	55.6 %
Term debt coverage ratio	5.28	5.50	6.52	4.70	5.34	4.87
Replacement coverage ratio	4.21	5.25	5.01	4.06	4.13	3.52
Solvency (end of year at market)						
Number of sole proprietors	193	26	41	42	66	18
Total farm assets	3,149,272	1,170,495	2,003,944	3,120,405	4,690,494	3,032,520
Total farm liabilities	1,203,138	630,443	851,770	1,340,183	1,662,169	827,820
Total assets	3,461,030	1,250,323	2,190,834	3,490,884	5,112,442	3,422,658
Total liabilities	1,313,422	695,849	946,560	1,512,029	1,773,502	890,733
Net worth	2,147,607	554,474	1,244,274	1,978,855	3,338,940	2,531,925
Net worth change	536,913	240,539	378,176	508,902	764,917	555,919
Farm debt to asset ratio	38 %	54 %	43 %	43 %	35 %	27 %
Total debt to asset ratio	38 %	56 %	43 %	43 %	35 %	26 %
Nonfarm Information						
Net nonfarm income	20,105	20,083	34,135	13,800	18,934	11,004
Crop Acres						
Total acres owned	416	125	186	426	621	476
Total crop acres	1,731	744	1,347	2,022	2,057	1,852
Total crop acres owned	398	108	185	430	583	439
Total crop acres cash rented	1,293	610	1,120	1,541	1,451	1,325
Total crop acres share rented	40	27	41	52	23	88

Financial Summary
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2012
(Farms Sorted By County)

	Avg. Of All Farms	Clay	Kittson	Marshall	Norman	Polk	Wilkin	Cass	Richland
Number of farms	227	39	5	7	32	30	43	18	38
Income Statement									
Gross cash farm income	1,163,839	1,262,494	1,198,000	707,304	1,297,546	1,548,929	1,106,347	761,794	986,951
Total cash farm expense	850,730	925,054	938,088	504,584	994,420	1,086,101	732,151	643,741	743,601
Net cash farm income	313,108	337,441	259,911	202,720	303,126	462,828	374,197	118,054	243,350
Inventory change	291,127	276,956	235,856	171,400	266,344	150,262	266,720	343,288	421,431
Depreciation	-72,842	-72,539	-80,346	-66,643	-78,468	-100,993	-59,699	-61,957	-62,440
Net farm income from operations	531,393	541,858	415,421	307,477	491,001	512,097	581,217	399,385	602,341
Gain or loss on capital sales	5,329	11,848	2,310	-	22,290	-	174	-	393
Average net farm income	536,722	553,705	417,731	307,477	513,291	512,097	581,392	399,385	602,734
Median net farm income	425,176	449,970	393,418	316,107	392,508	427,792	492,886	295,839	536,451
Profitability (cost)									
Rate of return on assets	19.3 %	20.6 %	15.5 %	16.4 %	15.7 %	12.2 %	24.5 %	21.9 %	23.6 %
Rate of return on equity	27.6 %	29.2 %	19.3 %	24.0 %	25.6 %	16.1 %	35.2 %	28.9 %	33.5 %
Operating profit margin	33.6 %	32.1 %	25.1 %	30.4 %	30.6 %	25.3 %	39.2 %	34.2 %	39.8 %
Asset turnover rate	57.4 %	63.9 %	61.7 %	54.0 %	51.4 %	48.2 %	62.6 %	64.2 %	59.2 %
Liquidity & Repayment (end of year)									
Current assets	878,901	846,469	-	745,420	943,810	860,597	810,868	815,127	931,691
Current liabilities	336,550	418,179	-	261,200	501,476	303,900	254,140	215,282	279,533
Current ratio	2.61	2.02	5.03	2.85	1.88	2.83	3.19	3.79	3.33
Working capital	542,351	428,290	-	484,220	442,334	556,697	556,728	599,845	652,158
Working capital to gross inc	44.1 %	31.0 %	43.4 %	57.1 %	36.5 %	45.7 %	43.5 %	56.7 %	56.3 %
Term debt coverage ratio	5.28	5.70	5.74	5.47	4.13	3.56	6.46	6.63	5.96
Replacement coverage ratio	4.21	3.91	3.60	3.52	3.59	3.15	5.13	5.30	4.79
Solvency (end of year at market)									
Number of sole proprietors	193	34	2	6	30	19	42	16	32
Total farm assets	3,149,272	3,797,032	-	2,563,562	3,862,937	2,580,552	2,780,551	2,711,457	3,109,357
Total farm liabilities	1,203,138	1,499,538	-	1,087,728	1,580,427	1,066,744	1,040,686	817,142	1,061,640
Total assets	3,461,030	4,289,836	-	2,802,701	4,205,743	2,796,193	3,035,747	3,014,004	3,368,623
Total liabilities	1,313,422	1,779,547	-	1,149,410	1,751,553	1,139,525	1,099,548	877,814	1,085,967
Net worth	2,147,607	2,510,289	-	1,653,291	2,454,191	1,656,668	1,936,199	2,136,190	2,282,656
Net worth change	536,913	529,004	-	339,747	500,974	361,314	486,883	661,053	771,915
Farm debt to asset ratio	38 %	39 %	- %	42 %	41 %	41 %	37 %	30 %	34 %
Total debt to asset ratio	38 %	41 %	- %	41 %	42 %	41 %	36 %	29 %	32 %
Nonfarm Information									
Net nonfarm income	20,105	22,898	17,061	15,643	20,796	8,598	20,562	35,463	19,786
Crop Acres									
Total acres owned	416	343	1,100	430	604	453	369	285	361
Total crop acres	1,731	1,759	1,537	1,429	2,201	2,134	1,305	1,557	1,523
Total crop acres owned	398	281	1,092	540	569	409	354	230	372
Total crop acres cash rented	1,293	1,447	445	889	1,590	1,683	898	1,326	1,086
Total crop acres share rented	40	32	-	-	42	42	53	1	65

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.

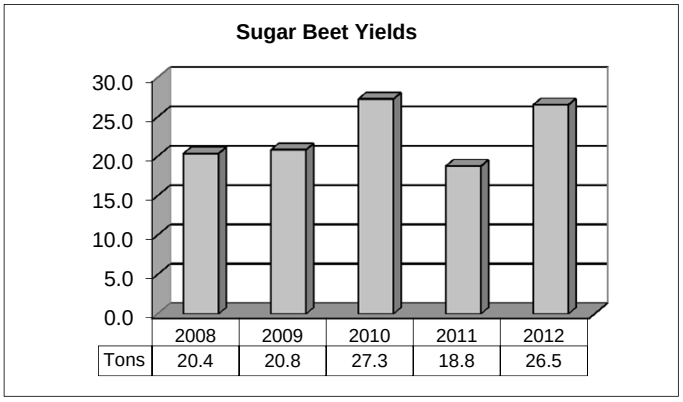
Several cost items, such as "utilities," "hired labor," and "interest paid," are listed under both "direct" and "overhead" costs because some of these costs are specific to that crop whereas others are general overhead costs of the farm. For example, "Machinery leases" as direct expense refers to machinery 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.

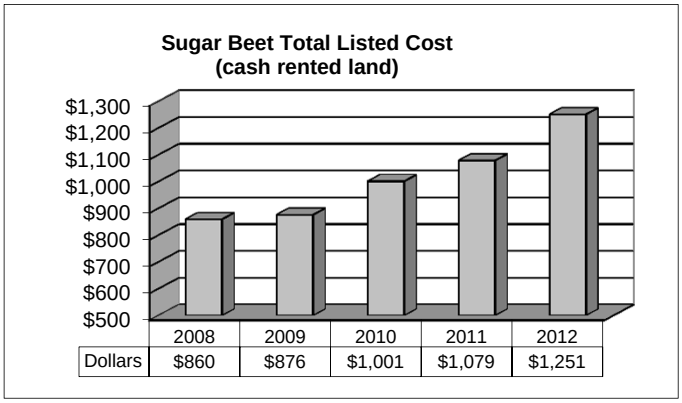
"Total direct expense per unit" and "Total dir & ovhd exp per unit" are calculated by dividing "Total direct expense per acre" and "Total dir & ovhd expenses per acre," respectively, by "Yield per acre." “With labor & management” is the breakeven yield after direct, overhead and a labor and management 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.

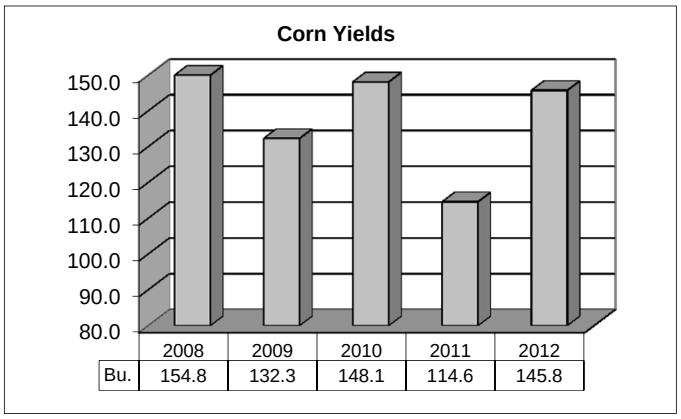
In the last section of the crop table, “machinery cost per acre” is the sum of fuel, repairs, all custom hire and machinery leases, machinery depreciation and interest on intermediate debt.

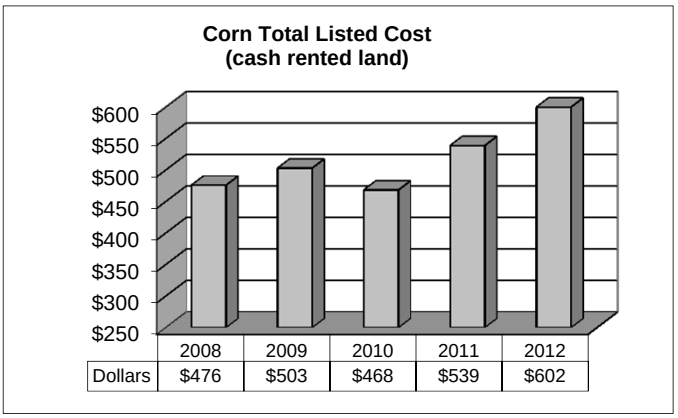
Rounding of individual items for the report may have caused minor discrepancies with the calculated totals.

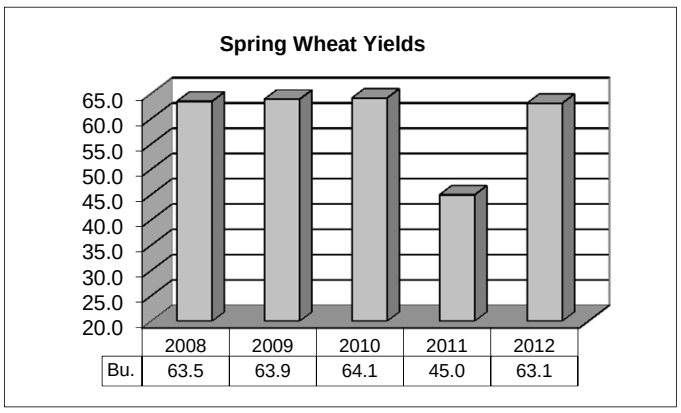
Five Year Crop History of
Yields and Cost of Production
Red River Valley Farm Business Management Education

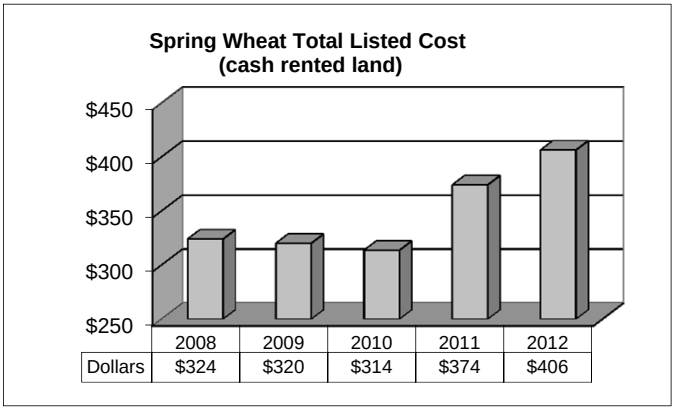


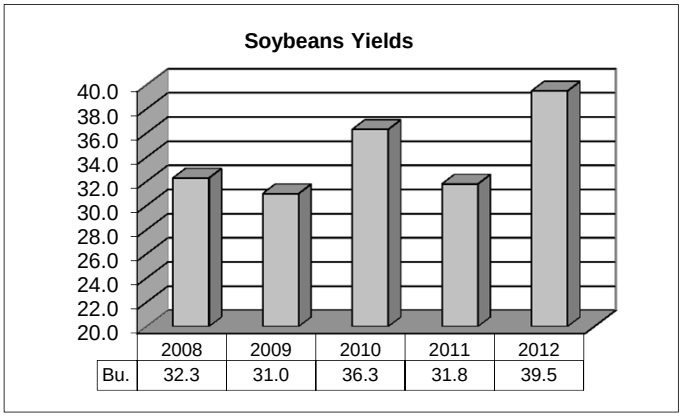


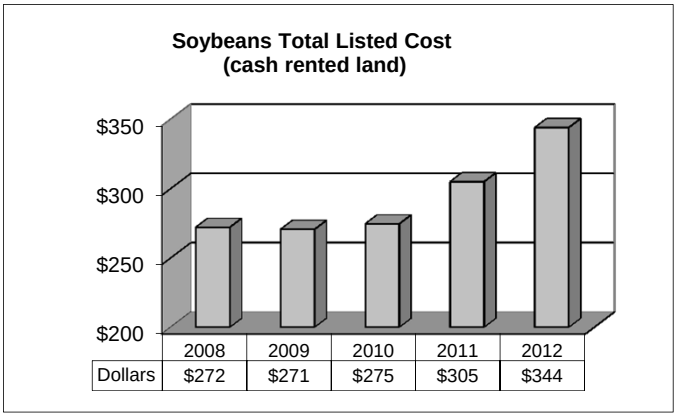












Crop Enterprise Analysis
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2012
(Farms Sorted By Net Return)

Beans, Navy on Cash Rent

	Avg. Of All Farms
Number of fields	7
Number of farms	5
Acres	136.31
Yield per acre (cwt.)	20.10
Operators share of yield %	100.00
Value per cwt.	35.00
Total product return per acre	703.36
Crop insurance per acre	7.08
Gross return per acre	710.45
Direct Expenses	
Seed	54.49
Fertilizer	41.83
Crop chemicals	43.32
Crop insurance	37.35
Fuel & oil	28.81
Repairs	45.44
Custom hire	6.80
Land rent	112.65
Operating interest	1.51
Miscellaneous	1.46
Total direct expenses per acre	373.67
Return over direct exp per acre	336.77
Overhead Expenses	
Hired labor	11.56
Machinery leases	2.97
Farm insurance	4.49
Utilities	2.24
Dues & professional fees	3.26
Interest	1.99
Mach & bldg depreciation	44.43
Miscellaneous	4.97
Total overhead expenses per acre	75.92
Total dir & ovhd expenses per acre	449.59
Net return per acre	260.86
Government payments	-
Net return with govt pmts	260.86
Labor & management charge	45.64
Net return over lbr & mgt	215.22
Cost of Production	
Total direct expense per cwt.	18.59
Total dir & ovhd exp per cwt.	22.37
Less govt & other income	22.02
With labor & management	24.29
	35.00
Net value per unit	124.56
Machinery cost per acre	
Est. labor hours per acre	2.03

Crop Enterprise Analysis
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2012
(Farms Sorted By Net Return)

Beans, Pinto on Cash Rent

	Avg. Of All Farms
Number of fields	10
Number of farms	6
Acres	263.83
Yield per acre (cwt.)	18.16
Operators share of yield %	100.00
Value per cwt.	34.89
Total product return per acre	633.43
Crop insurance per acre	0.85
Gross return per acre	634.28
Direct Expenses	
Seed	48.57
Fertilizer	38.68
Crop chemicals	93.65
Crop insurance	41.87
Fuel & oil	30.89
Repairs	41.30
Custom hire	14.67
Land rent	88.75
Operating interest	3.86
Miscellaneous	0.74
Total direct expenses per acre	402.97
Return over direct exp per acre	231.31
Overhead Expenses	
Custom hire	1.39
Hired labor	21.39
Machinery leases	3.98
Building leases	2.53
Farm insurance	7.58
Utilities	2.42
Dues & professional fees	2.73
Interest	2.85
Mach & bldg depreciation	65.35
Miscellaneous	20.71
Total overhead expenses per acre	130.94
Total dir & ovhd expenses per acre	533.92
Net return per acre	100.37
Government payments	-
Net return with govt pmts	100.37
Labor & management charge	56.24
Net return over lbr & mgt	44.13
Cost of Production	
Total direct expense per cwt.	22.20
Total dir & ovhd exp per cwt.	29.41
Less govt & other income	29.36
With labor & management	32.46
Net value per unit	34.89
Machinery cost per acre	156.50
Est. labor hours per acre	2.37

Crop Enterprise Analysis
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2012
(Farms Sorted By Net Return)

Corn on Owned Land

	Avg. Of All Farms	Low 20%	40 - 60%	High 20%
Number of fields	103	17	21	30
Number of farms	87	17	18	18
Acres	187.31	188.74	211.80	173.15
Yield per acre (bu.)	148.44	107.53	153.17	176.35
Operators share of yield %	100.00	100.00	100.00	100.00
Value per bu.	6.47	6.25	6.31	6.66
Total product return per acre	961.05	672.14	965.81	1,175.31
Hedging gains/losses per acre	-0.17	-	-0.75	-
Crop insurance per acre	10.20	35.91	1.31	1.37
Gross return per acre	971.08	708.05	966.37	1,176.68
Direct Expenses				
Seed	92.24	92.51	94.11	91.05
Fertilizer	155.19	159.70	160.63	154.36
Crop chemicals	23.29	21.28	22.36	22.67
Crop insurance	28.51	27.11	28.40	30.03
Drying expense	1.94	2.24	2.78	1.57
Fuel & oil	34.99	46.64	36.89	27.80
Repairs	46.76	45.71	60.55	38.73
Custom hire	5.15	1.59	7.60	3.78
Hired labor	1.10	2.16	0.36	0.76
Operating interest	6.92	9.74	7.82	4.09
Miscellaneous	2.66	6.41	1.07	0.83
Total direct expenses per acre	398.75	415.08	422.56	375.67
Return over direct exp per acre	572.33	292.97	543.81	801.01
Overhead Expenses				
Custom hire	2.58	0.02	0.77	7.23
Hired labor	18.80	15.19	25.91	17.16
Machinery leases	2.96	4.28	3.31	3.10
RE & pers. property taxes	18.36	19.25	16.94	18.04
Farm insurance	7.70	6.55	9.61	7.05
Utilities	6.38	8.58	9.14	4.63
Dues & professional fees	3.79	4.21	3.60	2.90
Interest	46.27	56.17	45.17	32.17
Mach & bldg depreciation	49.07	50.70	51.12	44.98
Miscellaneous	5.73	11.26	2.70	3.89
Total overhead expenses per acre	161.65	176.21	168.26	141.15
Total dir & ovhd expenses per acre	560.40	591.29	590.82	516.82
Net return per acre	410.68	116.76	375.55	659.86
Government payments	12.79	12.77	13.12	11.73
Net return with govt pmts	423.47	129.53	388.67	671.59
Labor & management charge	62.14	54.75	61.16	64.09
Net return over lbr & mgt	361.34	74.78	327.51	607.49
Cost of Production				
Total direct expense per bu.	2.69	3.86	2.76	2.13
Total dir & ovhd exp per bu.	3.78	5.50	3.86	2.93
Less govt & other income	3.62	5.05	3.77	2.86
With labor & management	4.04	5.56	4.17	3.22
Net value per unit	6.47	6.25	6.30	6.66
Machinery cost per acre	144.14	149.94	162.59	128.65
Est. labor hours per acre	2.29	2.71	2.58	1.88

Crop Enterprise Analysis
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2012
(Farms Sorted By Net Return)

Corn on Cash Rent

	Avg. Of All Farms	***Low 20%***	***40 - 60%***	***High 20%***
Number of fields	187	30	40	34
Number of farms	140	28	28	28
Acres	406.47	578.20	548.20	287.91
Yield per acre (bu.)	144.93	118.23	146.54	182.19
Operators share of yield %	100.00	100.00	100.00	100.00
Value per bu.	6.40	6.03	6.53	6.50
Total product return per acre	927.62	712.60	956.98	1,184.44
Hedging gains/losses per acre	0.23	-0.20	-0.18	-
Crop insurance per acre	5.52	13.56	3.15	0.97
Other crop income per acre	0.02	0.09	-	-
Gross return per acre	933.38	726.04	959.95	1,185.41
Direct Expenses				
Seed	90.90	90.81	90.29	93.55
Fertilizer	158.12	169.19	151.54	157.13
Crop chemicals	24.43	20.23	27.06	23.01
Crop insurance	28.99	28.71	29.59	26.20
Drying expense	3.29	2.51	2.88	4.75
Fuel & oil	32.48	33.97	34.73	28.39
Repairs	40.86	44.31	44.90	39.19
Custom hire	4.93	7.92	4.88	1.05
Hired labor	1.97	6.63	0.21	1.25
Land rent	109.87	105.75	108.13	118.14
Operating interest	6.61	9.43	4.63	4.94
Miscellaneous	3.26	4.78	1.90	3.37
Total direct expenses per acre	505.72	524.22	500.75	500.97
Return over direct exp per acre	427.67	201.82	459.20	684.44
Overhead Expenses				
Custom hire	0.96	0.03	0.66	2.29
Hired labor	16.46	12.22	22.83	11.41
Machinery leases	7.32	4.40	11.97	4.49
Farm insurance	6.64	6.92	6.66	6.23
Utilities	4.53	4.51	4.78	5.74
Dues & professional fees	3.87	3.85	3.25	5.51
Interest	6.72	6.87	7.21	6.54
Mach & bldg depreciation	44.84	52.30	39.80	46.60
Miscellaneous	4.90	6.60	2.95	5.20
Total overhead expenses per acre	96.24	97.70	100.09	94.01
Total dir & ovhd expenses per acre	601.96	621.92	600.84	594.98
Net return per acre	331.42	104.12	359.10	590.43
Government payments	12.09	12.28	10.88	12.65
Net return with govt pmts	343.51	116.40	369.99	603.09
Labor & management charge	53.01	47.73	45.46	67.54
Net return over lbr & mgt	290.50	68.68	324.53	535.55
Cost of Production				
Total direct expense per bu.	3.49	4.43	3.42	2.75
Total dir & ovhd exp per bu.	4.15	5.26	4.10	3.27
Less govt & other income	4.03	5.04	4.01	3.19
With labor & management	4.40	5.45	4.32	3.56
Net value per unit	6.40	6.03	6.53	6.50
Machinery cost per acre	135.89	148.08	139.77	129.02
Est. labor hours per acre	2.07	2.46	1.82	1.85

Crop Enterprise Analysis
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2012
(Farms Sorted By Net Return)

Corn on Share Rent

	Avg. Of All Farms
Number of fields	15
Number of farms	12
Acres	147.71
Yield per acre (bu.)	139.97
Operators share of yield %	62.92
Value per bu.	6.31
Total product return per acre	556.15
Hedging gains/losses per acre	-1.04
Other crop income per acre	10.33
Gross return per acre	565.44
Direct Expenses	
Seed	70.35
Fertilizer	123.64
Crop chemicals	27.92
Crop insurance	16.28
Drying expense	3.76
Fuel & oil	33.30
Repairs	45.71
Custom hire	3.55
Operating interest	4.63
Miscellaneous	2.80
Total direct expenses per acre	331.94
Return over direct exp per acre	233.49
Overhead Expenses	
Custom hire	1.34
Hired labor	13.45
Machinery leases	10.67
Farm insurance	7.01
Utilities	4.69
Dues & professional fees	3.14
Interest	5.02
Mach & bldg depreciation	40.23
Miscellaneous	8.62
Total overhead expenses per acre	94.18
Total dir & ovhd expenses per acre	426.12
Net return per acre	139.31
Government payments	7.25
Net return with govt pmts	146.57
Labor & management charge	57.58
Net return over lbr & mgt	88.99
Cost of Production	
Total direct expense per bu.	3.77
Total dir & ovhd exp per bu.	4.84
Less govt & other income	4.65
With labor & management	5.30
Net value per unit	6.30
Machinery cost per acre	138.29
Est. labor hours per acre	2.15

Crop Enterprise Analysis
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2012
(Farms Sorted By Net Return)

Soybeans on Owned Land

	Avg. Of All Farms	*Low 20%*	*40 - 60%*	*High 20%*
Number of fields	141	25	28	31
Number of farms	115	23	23	23
Acres	239.10	217.89	169.38	203.86
Yield per acre (bu.)	39.51	31.78	39.61	46.98
Operators share of yield %	100.00	100.00	100.00	100.00
Value per bu.	14.09	13.63	13.65	14.47
Total product return per acre	556.72	433.00	540.74	679.79
Hedging gains/losses per acre	-0.11	-0.14	-	-0.47
Crop insurance per acre	2.81	7.09	0.38	-
Other crop income per acre	0.06	0.12	-	-
Gross return per acre	559.47	440.08	541.12	679.32
Direct Expenses				
Seed	62.77	63.30	60.47	59.19
Fertilizer	14.61	18.65	14.60	7.90
Crop chemicals	21.53	19.21	20.48	20.47
Crop insurance	22.97	22.04	25.28	27.51
Fuel & oil	19.98	22.85	18.79	18.61
Repairs	23.23	25.98	26.48	24.28
Custom hire	3.67	3.29	5.17	3.16
Hired labor	1.01	3.25	0.18	-
Operating interest	3.83	5.73	2.88	1.85
Miscellaneous	2.63	6.98	0.51	0.85
Total direct expenses per acre	176.23	191.27	174.84	163.81
Return over direct exp per acre	383.24	248.80	366.28	515.51
Overhead Expenses				
Custom hire	1.22	0.01	0.35	1.48
Hired labor	9.86	6.16	8.46	14.09
Machinery leases	3.66	1.55	3.19	1.80
RE & pers.property taxes	16.81	16.46	18.12	17.34
Farm insurance	5.95	5.88	4.44	6.01
Utilities	3.32	3.72	2.93	3.71
Dues & professional fees	3.20	3.92	3.97	3.00
Interest	42.17	55.25	44.01	18.86
Mach & bldg depreciation	28.39	28.52	20.95	29.79
Miscellaneous	4.69	10.98	3.59	3.21
Total overhead expenses per acre	119.27	132.45	110.02	99.29
Total dir & ovhd expenses per acre	295.50	323.72	284.86	263.10
Net return per acre	263.97	116.35	256.26	416.21
Government payments	12.32	13.39	12.41	12.59
Net return with govt pmts	276.28	129.74	268.67	428.81
Labor & management charge	34.35	34.03	35.24	36.78
Net return over lbr & mgt	241.93	95.71	233.43	392.02
Cost of Production				
Total direct expense per bu.	4.46	6.02	4.41	3.49
Total dir & ovhd exp per bu.	7.48	10.19	7.19	5.60
Less govt & other income	7.10	9.54	6.87	5.34
With labor & management	7.97	10.61	7.76	6.13
Net value per unit	14.09	13.62	13.65	14.46
Machinery cost per acre	82.88	85.40	76.83	80.72
Est. labor hours per acre	1.33	1.63	1.38	1.18

Crop Enterprise Analysis
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2012
(Farms Sorted By Net Return)

Soybeans on Cash Rent

	Avg. Of All Farms	Low 20%	40 - 60%	High 20%
Number of fields	245	46	54	46
Number of farms	174	34	35	35
Acres	414.90	410.76	467.03	376.05
Yield per acre (bu.)	39.63	31.84	40.63	46.68
Operators share of yield %	100.00	100.00	100.00	100.00
Value per bu.	13.97	13.59	13.88	14.41
Total product return per acre	553.85	432.74	563.93	672.73
Hedging gains/losses per acre	-0.97	-	-2.74	-0.29
Crop insurance per acre	4.19	7.29	2.12	-
Other crop income per acre	0.16	0.13	-	0.79
Gross return per acre	557.23	440.16	563.31	673.23
Direct Expenses				
Seed	62.52	63.85	61.75	58.57
Fertilizer	14.19	16.74	12.95	13.46
Crop chemicals	20.87	22.99	17.93	22.01
Crop insurance	24.50	23.02	24.72	25.53
Fuel & oil	19.09	19.31	18.25	19.09
Repairs	24.80	23.49	25.97	23.20
Custom hire	3.66	5.63	1.82	3.01
Hired labor	0.49	0.84	0.31	0.40
Land rent	106.31	109.76	113.23	104.58
Machinery leases	1.31	0.91	2.08	0.52
Operating interest	3.74	4.96	3.01	2.11
Miscellaneous	1.86	2.67	1.45	1.19
Total direct expenses per acre	283.35	294.18	283.46	273.67
Return over direct exp per acre	273.88	145.98	279.85	399.57
Overhead Expenses				
Hired labor	9.94	8.48	11.46	10.08
Machinery leases	3.23	4.97	2.80	1.15
Farm insurance	6.05	5.43	6.84	5.02
Utilities	3.34	3.11	3.36	3.10
Dues & professional fees	3.31	2.46	3.78	3.56
Interest	3.69	2.83	3.94	2.94
Mach & bldg depreciation	26.66	24.53	28.98	27.89
Miscellaneous	4.53	4.37	3.23	4.56
Total overhead expenses per acre	60.74	56.20	64.39	58.30
Total dir & ovhd expenses per acre	344.10	350.38	347.86	331.97
Net return per acre	213.14	89.78	215.45	341.26
Government payments	13.08	13.79	12.59	12.40
Net return with govt pmts	226.22	103.57	228.04	353.66
Labor & management charge	32.91	32.24	33.12	36.38
Net return over lbr & mgt	193.30	71.33	194.93	317.28
Cost of Production				
Total direct expense per bu.	7.15	9.24	6.98	5.86
Total dir & ovhd exp per bu.	8.68	11.00	8.56	7.11
Less govt & other income	8.27	10.34	8.27	6.84
With labor & management	9.10	11.35	9.08	7.62
Net value per unit	13.95	13.59	13.81	14.41
Machinery cost per acre	80.71	79.64	80.37	77.74
Est. labor hours per acre	1.30	1.37	1.31	1.26

Crop Enterprise Analysis
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2012
(Farms Sorted By Net Return)

Soybeans on Share Rent

	Avg. Of All Farms
Number of fields	27
Number of farms	17
Acres	127.73
Yield per acre (bu.)	38.83
Operators share of yield %	62.01
Value per bu.	13.99
Total product return per acre	336.84
Crop insurance per acre	4.72
Other crop income per acre	3.50
Gross return per acre	345.06
Direct Expenses	
Seed	51.62
Fertilizer	8.71
Crop chemicals	19.88
Crop insurance	13.93
Fuel & oil	18.93
Repairs	29.36
Custom hire	1.33
Operating interest	2.51
Miscellaneous	0.59
Total direct expenses per acre	146.85
Return over direct exp per acre	198.21
Overhead Expenses	
Hired labor	4.49
Machinery leases	6.08
Farm insurance	6.00
Utilities	3.33
Dues & professional fees	3.11
Interest	3.82
Mach & bldg depreciation	19.96
Miscellaneous	5.24
Total overhead expenses per acre	52.03
Total dir & ovhd expenses per acre	198.87
Net return per acre	146.18
Government payments	6.94
Net return with govt pmts	153.13
Labor & management charge	35.85
Net return over lbr & mgt	117.28
Cost of Production	
Total direct expense per bu.	6.10
Total dir & ovhd exp per bu.	8.26
Less govt & other income	7.63
With labor & management	9.12
Net value per unit	13.99
Machinery cost per acre	78.85
Est. labor hours per acre	1.08

Crop Enterprise Analysis
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2012
(Farms Sorted By Net Return)

Soybeans, Food on Cash Rent

	Avg. Of All Farms
Number of fields	13
Number of farms	9
Acres	229.96
Yield per acre (bu.)	37.11
Operators share of yield %	100.00
Value per bu.	16.47
Total product return per acre	611.26
Crop insurance per acre	9.36
Gross return per acre	620.62
Direct Expenses	
Seed	25.66
Fertilizer	11.85
Crop chemicals	47.52
Crop insurance	19.84
Fuel & oil	16.96
Repairs	22.57
Custom hire	2.96
Hired labor	3.50
Land rent	107.24
Machinery leases	2.49
Operating interest	3.14
Miscellaneous	1.68
Total direct expenses per acre	265.42
Return over direct exp per acre	355.21
Overhead Expenses	
Hired labor	4.92
Machinery leases	2.11
Building leases	1.34
Farm insurance	4.67
Utilities	3.92
Dues & professional fees	4.76
Interest	6.43
Mach & bldg depreciation	21.34
Miscellaneous	5.27
Total overhead expenses per acre	54.77
Total dir & ovhd expenses per acre	320.18
Net return per acre	300.44
Government payments	13.21
Net return with govt pmts	313.65
Labor & management charge	32.15
Net return over lbr & mgt	281.50
Cost of Production	
Total direct expense per bu.	7.15
Total dir & ovhd exp per bu.	8.63
Less govt & other income	8.02
With labor & management	8.89
Net value per unit	16.47
Machinery cost per acre	73.85
Est. labor hours per acre	1.01

Crop Enterprise Analysis
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2012
(Farms Sorted By Net Return)

Sugar Beets on Owned Land Excluding Joint venture

	Avg. Of All Farms	Low 20%	40 - 60%	High 20%
Number of fields	39	7	10	7
Number of farms	35	7	7	7
Acres	130.25	117.57	152.98	97.59
Yield per acre (ton)	25.81	23.60	26.14	29.03
Operators share of yield %	100.00	100.00	100.00	100.00
Value per ton	64.52	57.97	64.96	64.49
Total product return per acre	1,665.45	1,368.33	1,698.06	1,872.17
Crop insurance per acre	8.01	2.18	25.42	-
Other crop income per acre	5.00	-	6.95	5.65
Gross return per acre	1,678.46	1,370.51	1,730.42	1,877.82
Direct Expenses				
Seed	171.09	178.48	170.85	169.33
Fertilizer	118.91	126.32	116.91	108.71
Crop chemicals	87.16	87.95	87.13	82.61
Crop insurance	35.38	32.02	43.51	27.62
Fuel & oil	95.34	112.83	100.85	77.32
Repairs	109.55	90.02	98.18	132.02
Custom hire	14.19	30.59	9.09	7.71
Hired labor	38.51	38.59	36.52	45.60
Operating interest	9.70	12.62	6.94	10.68
Miscellaneous	2.35	4.91	1.29	-
Total direct expenses per acre	682.19	714.32	671.27	661.61
Return over direct exp per acre	996.27	656.19	1,059.15	1,216.21
Overhead Expenses				
Custom hire	5.36	-	17.36	-
Hired labor	62.49	26.39	103.75	20.96
Machinery leases	9.98	0.72	15.54	3.19
RE & pers. property taxes	19.89	14.53	18.59	17.14
Farm insurance	14.31	12.46	17.76	8.36
Utilities	10.79	18.00	10.09	9.98
Dues & professional fees	4.69	5.21	4.37	2.65
Interest	48.65	59.71	46.00	45.76
Mach & bldg depreciation	122.96	139.29	120.32	94.50
Miscellaneous	13.04	18.27	9.27	5.91
Total overhead expenses per acre	312.17	294.59	363.04	208.45
Total dir & ovhd expenses per acre	994.36	1,008.91	1,034.31	870.06
Net return per acre	684.10	361.60	696.11	1,007.76
Government payments	14.41	14.00	16.91	13.80
Net return with govt pmts	698.51	375.60	713.03	1,021.56
Labor & management charge	134.83	109.07	153.82	143.39
Net return over lbr & mgt	563.68	266.52	559.21	878.17
Cost of Production				
Total direct expense per ton	26.43	30.26	25.68	22.79
Total dir & ovhd exp per ton	38.52	42.75	39.57	29.97
Less govt & other income	37.46	42.06	37.68	29.30
With labor & management	42.68	46.68	43.57	34.24
Net value per unit	64.52	57.97	64.96	64.49
Machinery cost per acre	357.57	371.53	370.70	312.49
Est. labor hours per acre	5.18	5.28	4.87	5.37

Crop Enterprise Analysis
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2012
(Farms Sorted By Net Return)

Sugar Beets on Owned Land Including Joint venture

	Avg. Of All Farms
Number of fields	23
Number of farms	23
Acres	109.72
Yield per acre (ton)	24.90
Operators share of yield %	100.00
Value per ton	62.99
Total product return per acre	1,568.37
Crop insurance per acre	2.78
Other crop income per acre	5.87
Gross return per acre	1,577.02
Direct Expenses	
Seed	189.27
Fertilizer	118.76
Crop chemicals	89.78
Crop insurance	32.73
Fuel & oil	90.79
Repairs	86.70
Custom hire	39.93
Hired labor	18.82
Stock/quota lease	333.73
Operating interest	20.01
Miscellaneous	1.29
Total direct expenses per acre	1,021.80
Return over direct exp per acre	555.22
Overhead Expenses	
Custom hire	2.28
Hired labor	47.04
Machinery leases	3.94
RE & pers. property taxes	18.13
Farm insurance	10.14
Utilities	8.18
Dues & professional fees	5.17
Interest	57.46
Mach & bldg depreciation	98.34
Miscellaneous	12.00
Total overhead expenses per acre	262.67
Total dir & ovhd expenses per acre	1,284.48
Net return per acre	292.54
Government payments	15.10
Net return with govt pmts	307.64
Labor & management charge	122.05
Net return over lbr & mgt	185.59
Cost of Production	
Total direct expense per ton	41.04
Total dir & ovhd exp per ton	51.59
Less govt & other income	50.64
With labor & management	55.54
Net value per unit	62.99
Machinery cost per acre	318.70
Est. labor hours per acre	4.66

Crop Enterprise Analysis
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2012
(Farms Sorted By Net Return)

Sugar Beets on Cash Rent Excluding Joint venture

	Avg. Of All Farms	*Low 20%*	*40 - 60%*	*High 20%*
Number of fields	81	12	15	22
Number of farms	57	11	12	12
Acres	136.84	257.03	190.36	110.07
Yield per acre (ton)	26.92	26.38	27.43	28.17
Operators share of yield %	100.00	100.00	100.00	100.00
Value per ton	63.63	59.94	60.65	69.30
Total product return per acre	1,712.79	1,581.45	1,663.51	1,951.89
Crop insurance per acre	0.30	0.03	1.13	-
Other crop income per acre	5.84	-	0.27	14.94
Gross return per acre	1,718.93	1,581.48	1,664.91	1,966.83
Direct Expenses				
Seed	177.17	197.54	159.31	177.61
Fertilizer	118.66	112.75	107.46	124.25
Crop chemicals	94.31	80.44	105.06	108.44
Crop insurance	31.52	27.56	30.73	37.01
Fuel & oil	89.42	97.11	80.65	89.33
Repairs	118.60	153.31	89.33	131.57
Custom hire	32.12	48.75	19.01	16.27
Hired labor	48.51	61.70	43.87	38.22
Land rent	124.44	111.19	124.95	128.50
Operating interest	13.20	11.52	14.01	10.01
Miscellaneous	5.92	10.83	2.77	6.28
Total direct expenses per acre	853.88	912.71	777.15	867.47
Return over direct exp per acre	865.05	668.77	887.76	1,099.36
Overhead Expenses				
Custom hire	3.25	-	0.94	0.19
Hired labor	58.67	91.06	58.97	37.55
Machinery leases	7.06	0.95	8.55	2.44
Farm insurance	18.23	29.67	19.67	8.52
Utilities	10.65	13.88	11.43	6.94
Dues & professional fees	6.64	7.60	10.03	3.07
Interest	13.67	13.14	15.07	10.53
Mach & bldg depreciation	121.05	137.97	126.33	113.16
Miscellaneous	14.34	16.75	13.83	8.08
Total overhead expenses per acre	253.55	311.02	264.82	190.49
Total dir & ovhd expenses per acre	1,107.42	1,223.73	1,041.97	1,057.96
Net return per acre	611.51	357.75	622.94	908.87
Government payments	13.54	14.24	12.30	11.58
Net return with govt pmts	625.05	371.99	635.24	920.46
Labor & management charge	147.35	141.10	148.86	153.74
Net return over lbr & mgt	477.70	230.88	486.38	766.72
Cost of Production				
Total direct expense per ton	31.72	34.59	28.33	30.80
Total dir & ovhd exp per ton	41.14	46.38	37.99	37.56
Less govt & other income	40.41	45.84	37.49	36.62
With labor & management	45.89	51.19	42.91	42.08
Net value per unit	63.63	59.94	60.65	69.30
Machinery cost per acre	369.35	425.42	326.14	349.79
Est. labor hours per acre	6.60	9.40	6.40	4.65

Crop Enterprise Analysis
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2012
(Farms Sorted By Net Return)

Sugar Beets on Cash Rent Including Joint venture

	Avg. Of All Farms	*Low 20%*	*40 - 60%*	*High 20%*
Number of fields	71	12	20	14
Number of farms	57	11	12	12
Acres	204.20	277.49	208.66	193.75
Yield per acre (ton)	26.35	23.48	26.52	29.11
Operators share of yield %	100.00	100.00	100.00	100.00
Value per ton	63.51	60.77	64.51	66.11
Total product return per acre	1,673.48	1,426.70	1,710.77	1,924.62
Other crop income per acre	3.79	-	2.83	6.44
Gross return per acre	1,677.26	1,426.70	1,713.60	1,931.06
Direct Expenses				
Seed	173.38	174.76	183.38	174.80
Fertilizer	119.17	113.76	106.57	125.56
Crop chemicals	91.08	78.22	99.77	71.40
Crop insurance	32.68	30.58	37.67	31.06
Fuel & oil	82.48	87.10	83.73	70.75
Repairs	103.16	102.80	98.72	89.31
Custom hire	33.55	59.78	24.75	25.60
Hired labor	36.31	33.76	39.29	34.56
Land rent	124.49	122.86	146.75	107.54
Stock/quota lease	328.36	350.85	333.07	304.23
Operating interest	16.42	20.66	20.42	9.48
Miscellaneous	3.01	3.15	2.51	0.87
Total direct expenses per acre	1,144.09	1,178.28	1,176.62	1,045.14
Return over direct exp per acre	533.17	248.42	536.98	885.91
Overhead Expenses				
Custom hire	2.52	8.40	0.04	0.61
Hired labor	46.64	49.47	46.83	26.87
Machinery leases	11.82	5.60	19.52	6.30
Farm insurance	11.51	13.16	9.39	10.17
Utilities	8.45	10.28	8.01	6.29
Dues & professional fees	6.19	6.50	6.27	5.42
Interest	16.38	17.77	22.29	6.30
Mach & bldg depreciation	98.10	97.23	110.56	86.05
Miscellaneous	15.62	21.50	16.69	5.94
Total overhead expenses per acre	217.23	229.92	239.61	153.96
Total dir & ovhd expenses per acre	1,361.32	1,408.20	1,416.22	1,199.10
Net return per acre	315.95	18.50	297.38	731.96
Government payments	12.59	14.34	10.70	12.48
Net return with govt pmts	328.53	32.84	308.08	744.44
Labor & management charge	121.84	107.20	113.76	135.20
Net return over lbr & mgt	206.69	-74.36	194.32	609.24
Cost of Production				
Total direct expense per ton	43.42	50.19	44.37	35.90
Total dir & ovhd exp per ton	51.67	59.98	53.41	41.19
Less govt & other income	51.04	59.37	52.90	40.54
With labor & management	55.67	63.93	57.19	45.18
Net value per unit	63.51	60.77	64.51	66.11
Machinery cost per acre	330.52	337.11	349.48	274.99
Est. labor hours per acre	4.82	4.35	4.81	5.03

Crop Enterprise Analysis
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2012
(Farms Sorted By Net Return)

Wheat, Spring on Owned Land

	Avg. Of All Farms	Low 20%	40 - 60%	High 20%
Number of fields	72	16	13	16
Number of farms	63	12	12	13
Acres	189.20	200.80	206.54	102.70
Yield per acre (bu.)	61.52	50.23	61.36	71.81
Operators share of yield %	100.00	100.00	100.00	100.00
Value per bu.	8.40	8.35	8.35	8.80
Total product return per acre	516.69	419.57	512.62	632.03
Hedging gains/losses per acre	-0.08	-0.32	-	-
Crop insurance per acre	0.29	0.87	-	-
Other crop income per acre	2.62	1.36	2.61	1.39
Gross return per acre	519.52	421.47	515.23	633.42
Direct Expenses				
Seed	25.26	23.77	26.32	24.16
Fertilizer	105.52	106.20	103.42	92.06
Crop chemicals	31.32	27.71	25.54	26.86
Crop insurance	19.67	16.15	20.82	18.48
Fuel & oil	23.14	18.42	22.42	19.13
Repairs	23.71	22.38	21.06	24.51
Custom hire	6.37	7.89	7.08	6.63
Hired labor	2.29	5.02	-	-
Machinery leases	0.94	3.17	-	1.33
Operating interest	3.14	4.27	3.59	2.18
Miscellaneous	2.58	1.54	3.95	1.95
Total direct expenses per acre	243.95	236.53	234.21	217.29
Return over direct exp per acre	275.57	184.94	281.02	416.13
Overhead Expenses				
Hired labor	9.34	11.96	5.68	12.15
Machinery leases	2.11	1.53	0.09	1.38
RE & pers. property taxes	17.16	18.64	14.11	23.82
Farm insurance	6.56	5.98	6.45	5.94
Utilities	3.87	4.82	4.08	2.68
Dues & professional fees	2.76	3.04	2.06	2.77
Interest	28.17	43.34	19.32	18.51
Mach & bldg depreciation	30.51	27.02	36.27	27.11
Miscellaneous	6.19	10.96	5.44	3.69
Total overhead expenses per acre	106.66	127.29	93.50	98.02
Total dir & ovhd expenses per acre	350.62	363.82	327.71	315.31
Net return per acre	168.91	57.65	187.52	318.10
Government payments	14.29	13.36	13.90	13.38
Net return with govt pmts	183.20	71.01	201.42	331.49
Labor & management charge	36.02	30.91	37.15	35.44
Net return over lbr & mgt	147.18	40.10	164.27	296.05
Cost of Production				
Total direct expense per bu.	3.97	4.71	3.82	3.03
Total dir & ovhd exp per bu.	5.70	7.24	5.34	4.39
Less govt & other income	5.42	6.94	5.07	4.19
With labor & management	6.01	7.56	5.68	4.68
Net value per unit	8.40	8.35	8.35	8.80
Machinery cost per acre	87.22	81.50	87.69	80.76
Est. labor hours per acre	1.54	1.69	1.47	1.34

Crop Enterprise Analysis
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2012
(Farms Sorted By Net Return)

Wheat, Spring on Cash Rent

	Avg. Of All Farms	Low 20%	40 - 60%	High 20%
Number of fields	138	24	24	31
Number of farms	108	21	21	22
Acres	316.50	440.78	312.63	224.59
Yield per acre (bu.)	63.64	53.77	62.46	74.56
Operators share of yield %	100.00	100.00	100.00	100.00
Value per bu.	8.46	8.28	8.39	8.61
Total product return per acre	538.29	445.24	524.14	641.74
Hedging gains/losses per acre	-0.47	-1.03	-	-
Crop insurance per acre	2.11	4.37	0.25	5.96
Other crop income per acre	1.57	4.85	-	1.35
Gross return per acre	541.50	453.43	524.39	649.05
Direct Expenses				
Seed	24.82	25.72	23.88	23.38
Fertilizer	111.38	112.79	111.56	98.83
Crop chemicals	28.95	31.73	26.30	25.13
Crop insurance	20.05	20.11	22.04	16.74
Fuel & oil	19.61	19.34	18.09	17.93
Repairs	23.51	24.67	22.23	22.48
Custom hire	6.13	5.78	3.09	6.93
Land rent	101.45	103.78	105.29	93.75
Machinery leases	1.18	1.31	0.33	3.10
Operating interest	2.89	4.15	2.85	2.26
Miscellaneous	3.40	3.95	1.76	2.55
Total direct expenses per acre	343.37	353.32	337.43	313.09
Return over direct exp per acre	198.12	100.11	186.96	335.96
Overhead Expenses				
Hired labor	11.52	11.59	9.58	9.48
Machinery leases	2.84	5.29	1.32	1.27
Farm insurance	6.04	6.84	4.90	7.19
Utilities	2.84	2.85	2.68	2.88
Dues & professional fees	2.96	3.01	2.41	3.20
Interest	3.67	4.81	3.43	2.48
Mach & bldg depreciation	26.78	31.14	19.30	25.04
Miscellaneous	6.44	13.44	2.59	5.52
Total overhead expenses per acre	63.09	78.97	46.22	57.06
Total dir & ovhd expenses per acre	406.46	432.29	383.64	370.15
Net return per acre	135.04	21.14	140.74	278.90
Government payments	13.15	12.57	13.38	13.61
Net return with govt pmts	148.18	33.71	154.12	292.52
Labor & management charge	30.28	29.68	27.40	32.29
Net return over lbr & mgt	117.91	4.03	126.73	260.23
Cost of Production				
Total direct expense per bu.	5.40	6.57	5.40	4.20
Total dir & ovhd exp per bu.	6.39	8.04	6.14	4.96
Less govt & other income	6.13	7.65	5.92	4.68
With labor & management	6.61	8.21	6.36	5.12
Net value per unit	8.45	8.26	8.39	8.61
Machinery cost per acre	82.02	91.08	67.21	79.11
Est. labor hours per acre	1.29	1.24	1.13	1.33

Crop Enterprise Analysis
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2012
(Farms Sorted By Net Return)

Wheat, Spring on Share Rent

	Avg. Of All Farms
Number of fields	12
Number of farms	11
Acres	154.28
Yield per acre (bu.)	61.43
Operators share of yield %	61.00
Value per bu.	8.51
Total product return per acre	318.83
Gross return per acre	318.83
Direct Expenses	
Seed	20.92
Fertilizer	96.32
Crop chemicals	15.03
Crop insurance	13.29
Fuel & oil	17.99
Repairs	30.19
Operating interest	2.32
Miscellaneous	0.87
Total direct expenses per acre	196.92
Return over direct exp per acre	121.91
Overhead Expenses	
Hired labor	3.27
Machinery leases	4.31
Farm insurance	5.44
Utilities	3.19
Dues & professional fees	3.26
Interest	2.84
Mach & bldg depreciation	16.84
Miscellaneous	5.31
Total overhead expenses per acre	44.47
Total dir & ovhd expenses per acre	241.40
Net return per acre	77.44
Government payments	7.63
Net return with govt pmts	85.06
Labor & management charge	33.56
Net return over lbr & mgt	51.51
Cost of Production	
Total direct expense per bu.	5.26
Total dir & ovhd exp per bu.	6.44
Less govt & other income	6.24
With labor & management	7.13
Net value per unit	8.51
Machinery cost per acre	72.59
Est. labor hours per acre	1.07

MyFarm Financial Scorecard

Year: _____ Name: _____

	This Year	5-Year Ave	Strong	Vulnerable
Liquidity				
Current ratio			1.7	1.1
Working capital				
Working cap to gross revenue			25%	10%
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			1.50	1.20
Replacement margin ratio			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%

Developed by: University of Vermont Extension and Center for Farm Financial Mgt, University of Minnesota
Updated by: Greg Tullis, Farm Business Mgt Program, Northland College