

Minnesota and North Dakota
Farm Business Management Education

Red River Valley 2023 Report



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RED RIVER VALLEY AVERAGES
2023 ANNUAL REPORT

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2023 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 2023 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 and agcentric.org.

EXPLANATORY NOTES FOR THE FARM OPERATORS' REPORTS

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

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

Farm Income Statement

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

The first section of the income statement is a table which lists cash farm income. There are several sources of cash farm income. Cash sales of crops are listed first followed by cash sales of livestock.

Government payments are categorized. "Crop government payments" are Agricultural Risk Coverage (ARC) and Price Loss Coverage (PLC) payments. "LDP payments" are loan deficiency payments that may be received on production when local prices are below the county loan rate for the crop. "Livestock government payments" include dairy MPP payments and other livestock related payments. "CRP payments" are funds received for land enrolled in the Conservation Reserve Program. "Other government payments" refers to all other government payments such as disaster payments, EQIP, and CSP.

Lastly, cash income is categorized by sources such as custom work, cash patronage dividends, crop and property insurance indemnities, sale of resale items, and other.

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

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

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

Inventory Changes

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

Depreciation

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

Profitability Measures

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

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

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

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

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

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

"Value of operator's labor and management" is an opportunity cost for unpaid operator's labor and management that is used in the calculation of several financial performance measures. A value of \$30,000 per full time operator plus 5% of gross farm income 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."

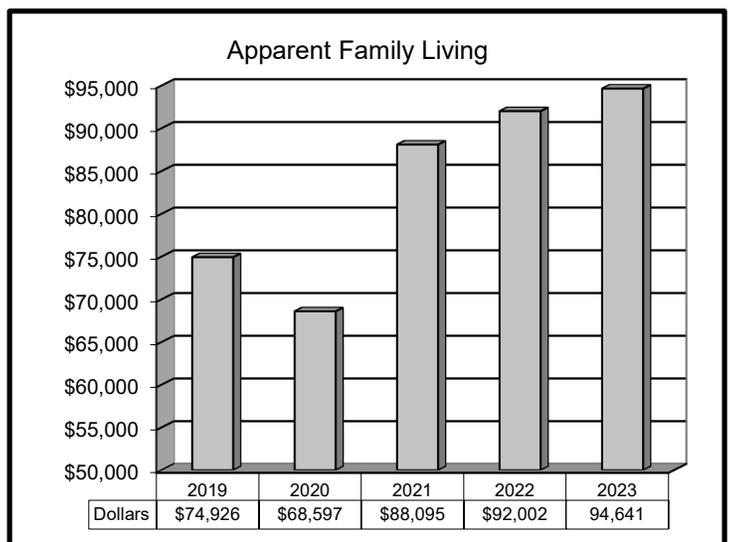
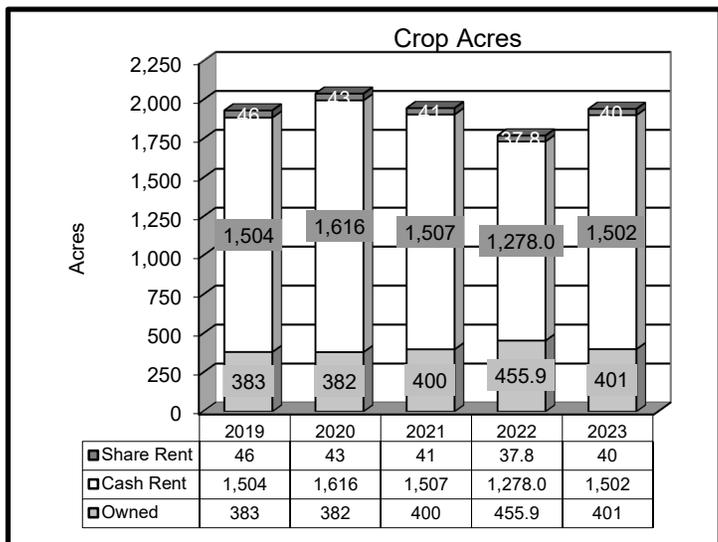
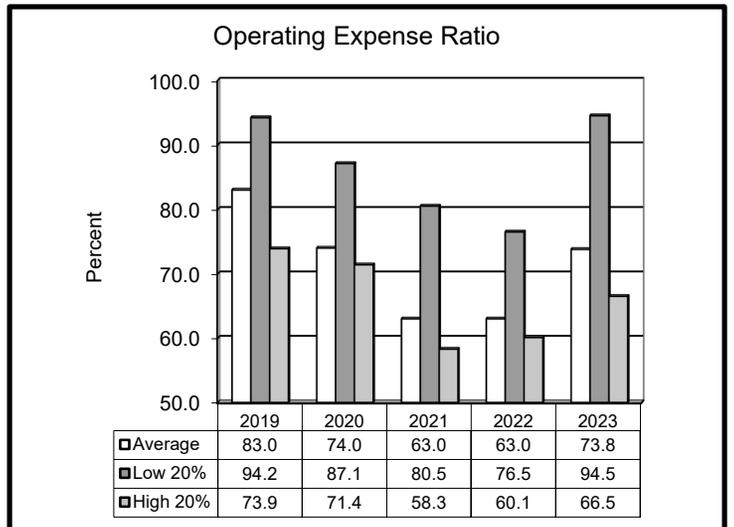
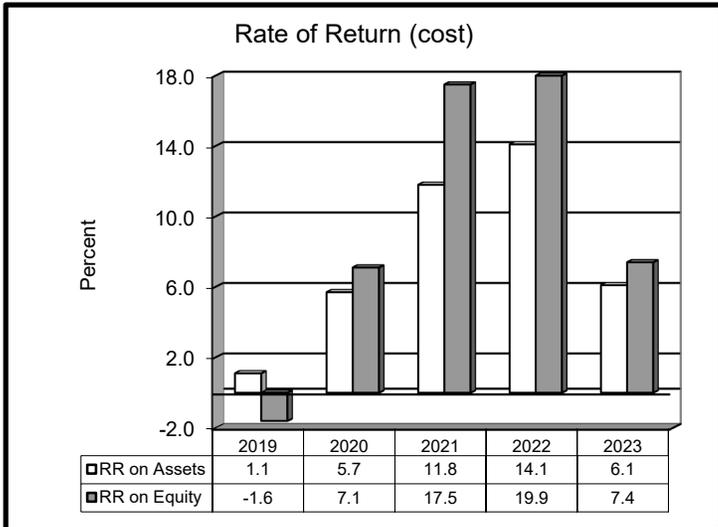
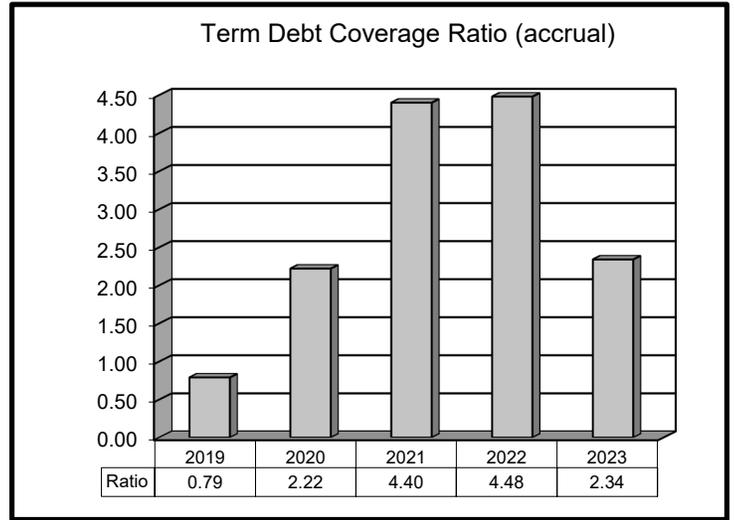
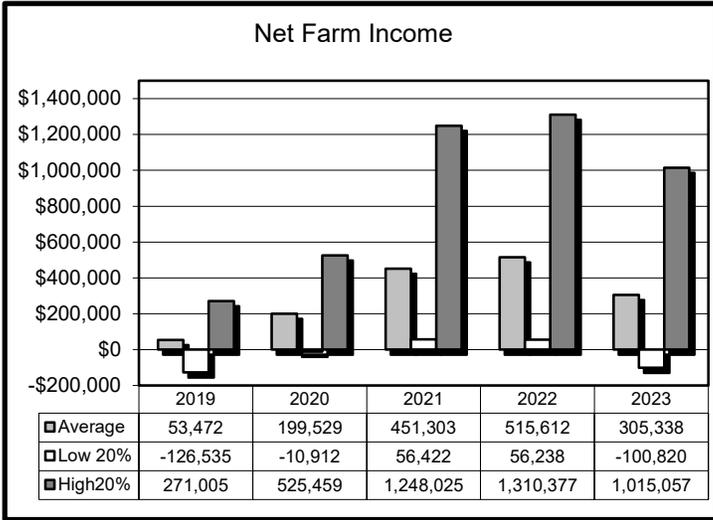
Operator and Labor Information

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 Farm Business Management Education
Red River Valley, 2023
(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	203	40	40	41
Cash Farm Income				
Barley	5,874	3,043	8,440	6,566
Beans, Black Turtle	17,191	61,129	-	8,418
Beans, Navy	9,786	-	9,742	38,949
Beans, Pink	2,390	-	-	11,019
Beans, Pinto	4,159	-	-	13,038
Beans, Small Red	523	-	-	2,592
Canola	5,017	-	-	22,846
Corn	424,416	654,545	274,160	692,621
Corn Silage	7,323	18,437	8,230	1,463
Grass Seed, Fescue	2,170	11,014	-	-
Hay, Alfalfa	9,378	8,992	11,604	-
Hay, Small Grain	103	-	-	-
Oats	2,083	238	2,037	7,332
Peas, Field	2,113	-	-	9,708
Potatoes	33,635	-	-	166,534
Radishes	3,840	954	-	-
Rye	1,396	2,243	-	3,775
Soybeans	370,977	338,695	266,561	647,681
Sugar Beets	393,647	56,212	203,608	1,057,737
Sunflowers	12,312	21,320	11,382	8,047
Wheat, Durum	979	-	-	-
Wheat, Spring	193,399	97,938	115,886	461,772
Hay	1,980	5,571	283	1,895
Miscellaneous crop income	10,255	4,150	7,001	2,222
Beef Cow-Calf, Beef Calves	103	-	60	453
Beef Backgrounding	1,250	2,884	2,636	805
Beef Finishing	2,710	132	704	12,434
Cull breeding livestock	98	-	428	70
Misc. livestock income	155	88	-	279
Crop government payments	744	551	86	231
CRP payments	1,179	1,135	1,427	890
Conservation govt payment	3,325	2,806	5,416	3,559
Other government payments	18,546	15,562	11,717	31,670
Custom work income	15,586	15,444	7,242	31,105
Patronage dividends, cash	24,220	20,797	12,932	46,760
Crop insurance income	27,554	20,853	18,740	48,903
Property insurance income	33	-	-	163
Sale of resale items	1,415	-	3,157	3,233
Farm rental income	21,079	27,689	15,383	38,078
Other farm income	46,200	48,668	35,724	76,019
Gross Cash Farm Income	1,679,143	1,441,089	1,034,585	3,458,869

Farm Income Statement (continued)
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2023
(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	203	40	40	41
Cash Farm Expense				
Seed and plants	172,020	150,397	105,944	349,666
Fertilizer	213,354	229,831	151,158	399,745
Crop chemicals	120,772	96,875	67,744	249,466
Crop insurance	48,914	56,629	30,575	81,226
Drying expense	5,177	4,768	3,474	11,327
Storage	1,711	2,084	720	557
Irrigation energy	982	332	87	4,028
Packaging and supplies	246	-	688	126
Transaction fees	52	264	-	-
Crop miscellaneous	4,167	1,874	1,519	8,140
Consultants	4,796	4,321	4,480	7,252
Feeder livestock purchase	2,452	690	343	11,135
Purchased feed	856	114	1,403	2,507
Veterinary	68	127	123	55
Supplies	186	142	414	293
Livestock leases	84	-	-	418
Interest	59,706	70,722	40,645	109,635
Fuel & oil	64,709	61,624	39,178	133,940
Repairs	132,486	134,527	79,727	246,840
Custom hire	21,027	8,612	15,612	37,047
Hired labor	72,768	65,951	29,324	154,023
Land rent	241,145	234,161	164,857	494,373
Stock/quota lease	26,032	2,408	12,624	80,836
Machinery leases	17,798	14,703	9,336	27,492
Building leases	2,181	1,262	1,805	3,265
Real estate taxes	13,159	14,328	8,874	24,553
Farm insurance	23,481	23,362	17,323	41,483
Utilities	11,438	12,388	6,879	20,076
Hauling and trucking	6,238	173	3,367	17,905
Marketing	1,780	2,458	1,619	2,053
Dues & professional fees	10,268	8,332	5,655	18,993
Purchase of resale items	4,840	386	3,755	1,807
Miscellaneous	13,269	9,311	6,938	15,589
Total cash expense	1,298,164	1,213,156	816,190	2,555,849
Net cash farm income	380,979	227,933	218,395	903,020
Inventory Changes				
Prepays and supplies	-35,070	-49,260	-3,689	-40,756
Accounts receivable	17,683	30,209	20,407	19,429
Hedging accounts	117	-28,274	3,910	25,516
Other current assets	2,774	10,812	2,915	522
Crops and feed	7,111	-142,585	-12,196	189,295
Market livestock	594	-1,834	674	4,106
Breeding livestock	105	69	76	380
Other assets	18,387	-32,643	17,883	68,219
Accounts payable	-1,001	-15,063	-15,548	-17,046
Accrued interest	-6,019	-10,637	-5,497	1,255
Total inventory change	4,680	-239,207	8,936	250,921
Net operating profit	385,659	-11,274	227,331	1,153,940
Depreciation				
Machinery and equipment	-73,235	-77,321	-47,737	-137,181
Titled vehicles	-8,326	-9,333	-9,044	-12,555
Buildings and improvements	-7,701	-4,215	-4,986	-18,879
Total depreciation	-89,262	-90,869	-61,767	-168,614
Net farm income from operations	296,397	-102,143	165,564	985,326
Gain or loss on capital sales	8,941	1,323	2,604	29,731
Net farm income	305,338	-100,820	168,168	1,015,057

Inventory Changes
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2023
(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	203	40	40	41
Net cash farm income	380,979	227,933	218,395	903,020
Crops and Feed				
Ending inventory	942,841	713,764	559,432	2,064,471
Beginning inventory	935,730	856,350	571,628	1,875,176
Inventory change	7,111	-142,585	-12,196	189,295
Market Livestock				
Ending inventory	4,273	1,060	1,949	17,475
Beginning inventory	3,679	2,894	1,274	13,369
Inventory change	594	-1,834	674	4,106
Accts Receivable				
Ending inventory	98,361	84,565	58,862	197,177
Beginning inventory	80,678	54,356	38,455	177,748
Inventory change	17,683	30,209	20,407	19,429
Prepaid Expenses and Supplies				
Ending inventory	180,037	138,745	96,125	403,418
Beginning inventory	215,107	188,005	99,814	444,174
Inventory change	-35,070	-49,260	-3,689	-40,756
Hedging Activities				
Ending inventory	11,805	5,865	4,123	38,912
Withdrawals	10,135	3,510	5,441	32,101
Beginning inventory	14,604	21,588	2,991	34,992
Deposits	7,218	16,061	2,663	10,505
Gain or loss	117	-28,274	3,910	25,516
Other Current Assets				
Ending inventory	15,387	65,571	5,482	4,318
Beginning inventory	12,613	54,759	2,568	3,796
Inventory change	2,774	10,812	2,915	522
Breeding Livestock				
Ending inventory	1,211	1,613	819	2,941
Capital sales	538	2,729	-	-
Beginning inventory	1,585	4,166	555	2,561
Capital purchases	58	108	188	-
Depreciation, capital adjust	105	69	76	380
Other Capital Assets				
Ending inventory	418,543	186,597	232,456	1,009,534
Capital sales	4,670	11,755	-	8,049
Beginning inventory	379,139	217,422	197,977	876,635
Capital purchases	25,688	13,574	16,596	72,728
Depreciation, capital adjust	18,387	-32,643	17,883	68,219
Accounts Payable				
Beginning inventory	57,303	35,924	30,562	72,862
Ending inventory	58,305	50,987	46,110	89,908
Inventory change	-1,001	-15,063	-15,548	-17,046
Accrued Interest				
Beginning inventory	25,918	36,658	15,134	47,567
Ending inventory	31,937	47,295	20,631	46,312
Inventory change	-6,019	-10,637	-5,497	1,255
Total inventory change	4,680	-239,207	8,936	250,921
Net operating profit	385,659	-11,274	227,331	1,153,940

Depreciation
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2023
(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	203	40	40	41
Net operating profit	385,659	-11,274	227,331	1,153,940
Machinery and Equipment				
Ending inventory	918,053	925,499	567,083	1,938,974
Capital sales	59,801	73,292	25,791	155,526
Beginning inventory	809,203	856,818	528,101	1,661,744
Capital purchases	241,886	219,294	112,510	569,936
Depreciation, capital adjust.	-73,235	-77,321	-47,737	-137,181
Titled Vehicles				
Ending inventory	83,172	92,320	66,813	132,781
Capital sales	3,587	5,472	2,397	4,690
Beginning inventory	69,834	85,891	55,909	103,643
Capital purchases	25,251	21,235	22,345	46,382
Depreciation, capital adjust.	-8,326	-9,333	-9,044	-12,555
Buildings and Improvements				
Ending inventory	384,685	484,672	183,802	806,452
Capital sales	1,244	1,025	-	5,160
Beginning inventory	331,239	416,640	167,663	699,490
Capital purchases	62,392	73,272	21,125	131,001
Depreciation, capital adjust.	-7,701	-4,215	-4,986	-18,879
Total depreciation, capital adj.	-89,262	-90,869	-61,767	-168,614
Net farm income from operations	296,397	-102,143	165,564	985,326
Gain or loss on capital sales	8,941	1,323	2,604	29,731
Net farm income	305,338	-100,820	168,168	1,015,057

Profitability Measures
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2023
(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	203	40	40	41
Profitability (assets valued at cost)				
Net farm income from operations	296,397	-102,143	165,564	985,326
Rate of return on assets	6.1 %	-2.7 %	5.6 %	10.7 %
Rate of return on equity	7.4 %	-9.0 %	6.2 %	14.5 %
Operating profit margin	15.0 %	-8.8 %	12.7 %	24.3 %
Asset turnover rate	40.8 %	31.2 %	43.7 %	44.1 %
Farm interest expense	65,724	81,360	46,142	108,380
Value of operator lbr and mgmt.	104,592	91,063	76,590	182,827
Return on farm assets	257,530	-111,846	135,117	910,879
Average farm assets	4,212,323	4,091,274	2,430,239	8,499,569
Return on farm equity	191,805	-193,206	88,975	802,499
Average farm equity	2,590,139	2,158,467	1,442,490	5,543,581
Value of farm production	1,717,721	1,275,328	1,062,754	3,750,738

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	203	40	40	41
Profitability (assets valued at market)				
Net farm income from operations	359,935	68,144	239,099	945,219
Rate of return on assets	5.7 %	1.0 %	5.9 %	8.2 %
Rate of return on equity	7.6 %	-0.7 %	7.8 %	12.1 %
Operating profit margin	18.7 %	4.6 %	19.6 %	23.2 %
Asset turnover rate	30.6 %	22.5 %	30.2 %	35.3 %
Farm interest expense	65,724	81,360	46,142	108,380
Value of operator lbr and mgmt.	104,592	91,063	76,590	182,827
Return on farm assets	321,068	58,441	208,651	870,772
Average farm assets	5,620,761	5,672,639	3,522,594	10,610,798
Return on farm equity	255,343	-22,919	162,509	762,392
Average farm equity	3,350,681	3,257,039	2,088,951	6,310,737
Value of farm production	1,717,721	1,275,328	1,062,754	3,750,738

Liquidity & Repayment Capacity Measures
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2023
(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	203	40	40	41
Liquidity				
Current ratio	2.23	1.42	2.20	2.79
Working capital	748,685	319,772	426,171	1,876,190
Change in working capital	-72,868	-337,819	-40,576	116,915
Working capital to gross revenue	43.4 %	25.1 %	39.9 %	49.8 %
Working capital to oper expense	58.7 %	26.5 %	53.6 %	74.9 %
Current assets	1,356,514	1,085,361	782,028	2,927,141
Current liabilities	607,829	765,589	355,856	1,050,952
Gross revenues (accrual)	1,725,869	1,276,518	1,068,255	3,766,188
Total operating expenses	1,274,485	1,206,432	794,782	2,503,868
Repayment capacity				
Net farm income from operations	296,397	-102,143	165,564	985,326
Depreciation	89,262	90,869	61,767	168,614
Personal income	41,886	70,353	40,993	28,348
Family living/owner withdrawals	-95,162	-96,475	-84,455	-112,631
Cash discrepancy	-267	-881	32	-65
Income taxes	-34,351	-21,520	-26,889	-56,490
Interest expense	69,076	85,259	48,707	113,217
Debt repayment capacity	366,842	25,461	205,719	1,126,321
Debt payments	170,088	193,208	109,966	319,643
Repayment margin	196,754	-167,747	95,753	806,678
Cash replacement allowance	-63,585	-72,548	-46,822	-105,880
Replacement margin	133,169	-240,295	48,931	700,797
Debt coverage ratio	2.16	0.13	1.87	3.52
Term debt coverage ratio	2.34	0.03	2.04	3.80
Replacement coverage ratio	1.57	0.10	1.31	2.65

Balance Sheet at Cost Values
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2023
(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	203	40	40	41
Assets				
Current Farm Assets				
Cash and checking balance	103,811	75,790	56,054	201,371
Prepaid expenses & supplies	180,037	138,745	96,125	403,418
Growing crops	577	1,207	675	482
Accounts receivable	98,361	84,565	58,862	197,177
Hedging accounts	11,805	5,865	4,123	38,912
Crops held for sale or feed	942,841	713,764	559,432	2,064,471
Crops under government loan	-	-	-	-
Market livestock held for sale	4,273	1,060	1,949	17,475
Other current assets	14,810	64,364	4,808	3,836
Total current farm assets	1,356,514	1,085,361	782,028	2,927,141
Intermediate Farm Assets				
Breeding livestock	1,211	1,613	819	2,941
Machinery and equipment	918,053	925,499	567,083	1,938,974
Titled vehicles	83,172	92,320	66,813	132,781
Other intermediate assets	317,798	100,589	157,669	835,800
Total intermediate farm assets	1,320,234	1,120,020	792,383	2,910,497
Long Term Farm Assets				
Farm land	1,218,333	1,318,088	685,626	2,157,081
Buildings and improvements	384,685	484,672	183,802	806,452
Other long-term assets	100,746	86,009	74,787	173,733
Total long-term farm assets	1,703,764	1,888,769	944,215	3,137,266
Total Farm Assets	4,380,512	4,094,150	2,518,626	8,974,904
Total Nonfarm Assets	459,130	486,846	301,540	891,727
Total Assets	4,839,642	4,580,996	2,820,166	9,866,631
Liabilities				
Current Farm Liabilities				
Accrued interest	31,937	47,295	20,631	46,312
Accounts payable	58,305	50,987	46,110	89,908
Current notes	407,306	548,476	218,328	694,225
Government crop loans	-	-	-	-
Principal due on term debt	110,281	118,831	70,788	220,507
Total current farm liabilities	607,829	765,589	355,856	1,050,952
Total intermediate farm liabs	250,138	259,460	182,031	505,215
Total long term farm liabilities	840,396	994,286	500,241	1,488,822
Total farm liabilities	1,698,363	2,019,335	1,038,128	3,044,988
Total nonfarm liabilities	124,029	125,076	93,715	239,600
Total liabilities	1,822,392	2,144,411	1,131,843	3,284,588
Net worth (farm and nonfarm)	3,017,249	2,436,585	1,688,322	6,582,043
Net worth change	232,157	-137,393	106,404	879,548
Percent net worth change	8 %	-5 %	7 %	15 %
Ratio Analysis				
Current farm liabilities / assets	45 %	71 %	46 %	36 %
Intermediate farm liab. / assets	19 %	23 %	23 %	17 %
Long term farm liab. / assets	49 %	53 %	53 %	47 %
Total debt to asset ratio	38 %	47 %	40 %	33 %

Balance Sheet at Market Values
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2023
(Farms Sorted By Net Farm Income)

	<u>Ava. Of</u> <u>All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	203	40	40	41
Assets				
Current Farm Assets				
Cash and checking balance	103,811	75,790	56,054	201,371
Prepaid expenses & supplies	180,037	138,745	96,125	403,418
Growing crops	577	1,207	675	482
Accounts receivable	98,361	84,565	58,862	197,177
Hedging accounts	11,805	5,865	4,123	38,912
Crops held for sale or feed	942,841	713,764	559,432	2,064,471
Crops under government loan	-	-	-	-
Market livestock held for sale	4,273	1,060	1,949	17,475
Other current assets	14,810	64,364	4,808	3,836
Total current farm assets	1,356,514	1,085,361	782,028	2,927,141
Intermediate Farm Assets				
Breeding livestock	1,620	2,225	896	3,268
Machinery and equipment	1,193,916	1,285,381	773,965	2,340,865
Titled vehicles	106,430	124,518	91,206	155,406
Other intermediate assets	466,226	216,014	286,597	1,025,469
Total intermediate farm assets	1,768,191	1,628,138	1,152,664	3,525,008
Long Term Farm Assets				
Farm land	2,158,510	2,413,900	1,431,844	3,573,048
Buildings and improvements	436,348	537,085	216,790	883,681
Other long-term assets	117,145	97,812	63,932	233,733
Total long-term farm assets	2,712,003	3,048,797	1,712,567	4,690,462
Total Farm Assets	5,836,708	5,762,296	3,647,259	11,142,611
Total Nonfarm Assets	553,996	546,561	360,021	1,058,808
Total Assets	6,390,704	6,308,857	4,007,279	12,201,419
Liabilities				
Current Farm Liabilities				
Accrued interest	31,937	47,295	20,631	46,312
Accounts payable	58,305	50,987	46,110	89,908
Current notes	407,306	548,476	218,328	694,225
Government crop loans	-	-	-	-
Principal due on term debt	110,281	118,831	70,788	220,507
Total current farm liabilities	607,829	765,589	355,856	1,050,952
Total intermediate farm liabs	250,138	259,460	182,031	505,215
Total long term farm liabilities	840,396	994,286	500,241	1,488,822
Total farm liabilities	1,698,363	2,019,335	1,038,128	3,044,988
Total nonfarm liabilities	124,029	125,076	93,715	239,600
Total liabs excluding deferreds	1,822,392	2,144,411	1,131,843	3,284,588
Total deferred liabilities	681,297	489,658	451,997	1,460,155
Total liabilities	2,503,689	2,634,069	1,583,840	4,744,743
Retained earnings	3,017,249	2,436,585	1,688,322	6,582,043
Market valuation equity	869,765	1,238,202	735,116	874,633
Net worth (farm and nonfarm)	3,887,015	3,674,788	2,423,439	7,456,676
Net worth excluding deferreds	4,568,312	4,164,446	2,875,436	8,916,831
Net worth change	308,595	41,421	193,641	860,487
Percent net worth change	9 %	1 %	9 %	13 %
Ratio Analysis				
Current farm liabilities / assets	45 %	71 %	46 %	36 %
Intermediate farm liab. / assets	14 %	16 %	16 %	14 %
Long term farm liab. / assets	31 %	33 %	29 %	32 %
Total debt to asset ratio	39 %	42 %	40 %	39 %
Debt to assets excl deferreds	29 %	34 %	28 %	27 %

Statement Of Cash Flows
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2023
(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	203	40	40	41
Beginning cash (farm & nonfarm)	124,827	101,696	59,373	274,449
Cash Provided By Operating Activities				
Gross cash farm income	1,679,143	1,441,089	1,034,585	3,458,869
Total cash farm expense	-1,298,164	-1,213,156	-816,190	-2,555,849
Net cash from hedging transactions	2,917	-12,551	2,778	21,597
Cash provided by operating	383,895	215,382	221,173	924,616
Cash Provided By Investing Activities				
Sale of breeding livestock	538	2,729	-	-
Sale of machinery & equipment	61,222	68,559	28,104	156,564
Sale of titled vehicles	3,961	7,574	2,689	4,968
Sale of farm land	23,068	3,936	-	53,049
Sale of farm buildings	1,551	2,583	-	5,160
Sale of other farm assets	4,759	11,755	-	8,049
Sale of nonfarm assets	6,761	9,364	7,137	9,441
Purchase of breeding livestock	-58	-108	-188	-
Purchase of machinery & equip.	-241,886	-219,294	-112,510	-569,936
Purchase of titled vehicles	-25,251	-21,235	-22,345	-46,382
Purchase of farm land	-150,102	-69,605	-56,518	-303,366
Purchase of farm buildings	-62,392	-73,272	-21,125	-131,001
Purchase of other farm assets	-25,688	-13,574	-16,596	-72,728
Purchase of nonfarm assets	-55,376	-58,763	-34,181	-129,385
Cash provided by investing	-458,893	-349,350	-225,533	-1,015,567
Cash Provided By Financing Activities				
Money borrowed	770,131	758,289	342,228	1,578,133
Principal payments	-615,007	-589,173	-265,984	-1,393,059
Personal income	41,886	70,353	40,993	28,348
Family living/owner withdrawals	-94,965	-96,475	-84,455	-112,631
Income and social security tax	-35,191	-22,775	-22,487	-54,472
Capital contributions	6,778	-	-	2,359
Capital distributions	-426	-1,038	-	-1,098
Dividends paid	-197	-	-	-
Cash gifts and inheritances	5,130	8,989	15,460	222
Gifts given	-3,726	-376	-1,691	-7,836
Other cash flows	-	-	-	-
Cash provided by financing	74,413	127,793	24,064	39,966
Net change in cash balance	-584	-6,175	19,704	-50,984
Ending cash (farm & nonfarm)	123,976	94,641	79,109	223,400
Discrepancy	267	881	-32	65

Financial Standards Measures
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2023
(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	203	40	40	41
Liquidity				
Current ratio	2.23	1.42	2.20	2.79
Working capital to gross revenue	43.4 %	25.1 %	39.9 %	49.8 %
Working capital to oper expense	58.7 %	26.5 %	53.6 %	74.9 %
Solvency (market)				
Farm debt to asset ratio	40 %	43 %	41 %	40 %
Farm equity to asset ratio	60 %	57 %	59 %	60 %
Farm debt to equity ratio	0.68	0.77	0.69	0.67
Profitability (cost)				
Rate of return on farm assets	6.1 %	-2.7 %	5.6 %	10.7 %
Rate of return on farm equity	7.4 %	-9.0 %	6.2 %	14.5 %
Operating profit margin	15.0 %	-8.8 %	12.7 %	24.3 %
Asset turnover rate	40.8 %	31.2 %	43.7 %	44.1 %
Repayment Capacity				
Debt coverage ratio	2.16	0.13	1.87	3.52
Term debt coverage ratio	2.34	0.03	2.04	3.80
Replacement coverage ratio	1.57	0.10	1.31	2.65
Efficiency				
Operating expense ratio	73.8 %	94.5 %	74.4 %	66.5 %
Depreciation expense ratio	5.2 %	7.1 %	5.8 %	4.5 %
Interest expense ratio	3.8 %	6.4 %	4.3 %	2.9 %
Net farm income ratio	17.2 %	-8.0 %	15.5 %	26.2 %

Crop Production and Marketing Summary
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2023
(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	203	40	40	41
Acreage Summary				
Total acres owned	516	564	304	931
Total crop acres	1,943	1,854	1,290	3,620
Crop acres owned	401	420	255	702
Crop acres cash rented	1,502	1,401	1,036	2,884
Crop acres share rented	40	33	-	34
Total pasture acres	2	2	-	6
Percent crop acres owned	21 %	23 %	20 %	19 %
Mach invest/crop acre cost	474	514	419	530
Mach invest/crop acre market	620	714	584	640
Average Price Received (Cash Sales Only)				
Soybeans per bushel	13.37	13.46	12.93	13.55
Corn per bushel	5.72	5.36	5.73	5.92
Wheat, Spring per bushel	8.26	7.75	7.87	8.54
Soybeans Seed per bushel	14.70	-	-	-
Barley per bushel	7.36	-	-	-
Sunflowers per cwt	26.35	-	-	-
Hay, Alfalfa per ton	153.45	-	-	-
Beans, Black Turtle per cwt	39.90	-	-	-
Straw per ton	109.25	-	-	-
Oats per bushel	4.62	-	-	-
Beans, Pinto per cwt	36.81	-	-	-
Soybeans, Food per bushel	18.37	-	-	-
Average Yield Per Acre				
Soybeans (bushel)	41.79	42.38	38.49	42.97
Corn (bushel)	168.46	167.25	163.72	170.73
Wheat, Spring (bushel)	71.08	65.35	73.17	73.92
Sugar Beets (ton)	29.10	-	29.51	28.92
Hay, Alfalfa (ton)	3.29	2.97	-	-
Soybeans Seed (bushel)	38.83	-	-	43.17
Soybeans, Food (bushel)	32.23	35.95	-	-
Corn Silage (ton)	18.95	19.50	-	18.69
Barley (bushel)	92.55	-	-	-
Sunflowers (cwt)	28.73	-	-	-
Beans, Navy (cwt)	26.86	-	-	26.16
Beans, Black Turtle (cwt)	24.35	-	-	-
Potatoes (cwt)	373.71	-	-	373.71
Canola (cwt)	25.70	-	-	25.70
Oats (bushel)	125.50	-	-	-
Straw (ton)	1.01	-	-	-
Beans, Pinto (cwt)	17.73	-	-	-

Operator and Labor Information
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2023
(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	203	40	40	41
Operator Information				
Average number of operators	1.2	1.0	1.1	1.4
Average age of operators	46.7	49.5	42.5	47.8
Average number of years farming	23.0	26.1	17.2	26.0
Results Per Operator				
Working capital	644,324	307,104	401,102	1,303,793
Total assets (market)	5,499,885	6,058,926	3,771,557	8,478,952
Total liabilities	2,154,693	2,529,718	1,490,673	3,297,194
Net worth (market)	3,345,192	3,529,208	2,280,884	5,181,758
Net worth excl deferred liabs	3,931,522	3,999,468	2,706,293	6,196,442
Gross farm income	1,485,295	1,225,947	1,005,416	2,617,181
Total farm expense	1,230,213	1,324,044	849,591	1,932,463
Net farm income from operations	255,082	-98,096	155,825	684,718
Net nonfarm income	36,048	67,565	38,582	19,700
Family living & tax withdrawals	111,690	114,167	104,764	117,570
Total acres owned	443.9	541.5	286.3	647.0
Total crop acres	1,671.7	1,780.4	1,214.4	2,515.3
Crop acres owned	345.3	403.1	239.6	487.6
Crop acres cash rented	1,292.2	1,345.2	974.8	2,004.3
Crop acres share rented	34.2	32.1	-	23.3
Total pasture acres	1.4	1.8	-	4.2
Labor Analysis				
Number of farms	202	39	40	41
Total unpaid labor hours	1,994	1,779	1,933	2,690
Total hired labor hours	2,338	2,008	1,264	5,021
Total labor hours per farm	4,332	3,788	3,196	7,712
Unpaid hours per operator	1,715	1,707	1,819	1,869
Value of farm production / hour	397.81	341.49	332.52	486.37
Net farm income / unpaid hour	149.52	-57.91	85.67	366.26
Average hourly hired labor wage	32.58	34.74	26.91	32.07
Partnerships & LLCs				
Number of farms	22	3	1	10
Number of operators	2.1	-	-	2.4
Owner withdrawals per farm	-	-	-	-
Withdrawals per operator	-	-	-	-
Corporations				
Number of farms	16	4	4	5
Number of operators	1.4	-	-	1.8

Household and Personal Expenses
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2023
(Farms Sorted By Net Farm Income)

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>High 20%</u>
Number of farms	31	8	7
Average family size	2.7	2.6	2.9
Family Living Expenses			
Food and meals expense	14,500	12,198	15,507
Medical care	4,847	3,979	7,028
Health insurance	5,669	2,921	8,940
Cash donations	2,480	1,264	2,189
Household supplies	5,190	5,923	4,037
Clothing	3,467	3,388	4,213
Personal care	4,220	2,301	6,442
Child / Dependent care	495	1,025	-
Alimony and child support	3,290	-	14,571
Gifts	3,054	3,667	1,218
Education	2,244	1,604	3,113
Recreation	12,078	11,208	15,116
Utilities (household share)	3,396	3,343	4,050
Personal vehicle operating exp	4,150	4,771	4,288
Household real estate taxes	1,885	1,479	2,827
Dwelling rent	327	-	714
Household repairs	5,640	2,824	5,281
Personal interest	3,783	4,415	8,647
Disability / Long term care ins	344	-	526
Life insurance payments	5,517	1,278	5,470
Personal property insurance	1,092	879	2,110
Miscellaneous	6,973	10,762	3,688
Total cash family living expense	94,641	79,230	119,974
Family living from the farm	-	-	-
Total family living	94,641	79,230	119,974
Other Nonfarm Expenditures			
Income taxes	32,489	13,273	52,178
Furnishing & appliance purchases	372	-	1,073
Nonfarm vehicle purchases	6,704	7,288	-
Nonfarm real estate purchases	6,089	20,842	3,148
Other nonfarm capital purchases	51,365	-	172,123
Nonfarm savings & investments	12,300	691	30,729
Total other nonfarm expenditures	109,319	42,095	259,252
Total cash family living investment & nonfarm capital purch	203,960	121,325	379,226

Financial Summary
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2023
(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>1,000,001- 2,000,000</u>	<u>Over 2,000,000</u>
Number of farms	203	16	27	39	58	60
Income Statement						
Gross cash farm income	1,679,143	172,730	371,487	753,004	1,406,834	3,615,304
Total cash farm expense	1,298,164	120,272	293,714	581,511	1,115,045	2,769,593
Net cash farm income	380,979	52,458	77,773	171,493	291,789	845,711
Inventory change	4,680	7,370	7,867	11,707	-22,843	24,672
Depreciation	-89,262	-7,324	-14,157	-49,401	-75,315	-188,665
Net farm income from operations	296,397	52,504	71,482	133,799	193,631	681,718
Gain or loss on capital sales	8,941	381	1,454	2,942	24,565	3,800
Average net farm income	305,338	52,884	72,937	136,741	218,196	685,518
Median net farm income	162,171	36,828	69,983	143,541	207,346	586,602
Profitability (cost)						
Rate of return on assets	6.1 %	6.5 %	5.5 %	5.0 %	4.6 %	6.9 %
Rate of return on equity	7.4 %	8.5 %	6.9 %	5.7 %	4.8 %	8.6 %
Operating profit margin	15.0 %	23.8 %	13.0 %	13.2 %	11.6 %	16.5 %
Asset turnover rate	40.8 %	27.4 %	42.0 %	38.0 %	39.9 %	41.8 %
Profitability (market)						
Rate of return on assets	5.7 %	8.8 %	5.8 %	5.4 %	6.0 %	5.6 %
Rate of return on equity	7.6 %	12.6 %	8.3 %	6.9 %	8.0 %	7.5 %
Operating profit margin	18.7 %	37.4 %	20.0 %	18.4 %	19.8 %	18.0 %
Asset turnover rate	30.6 %	23.4 %	29.3 %	29.4 %	30.4 %	31.0 %
Liquidity & Repayment (end of year)						
Current assets	1,356,514	151,553	305,279	697,411	1,116,344	2,877,716
Current liabilities	607,829	50,219	155,400	259,415	514,833	1,304,582
Current ratio	2.23	3.02	1.96	2.69	2.17	2.21
Working capital	748,685	101,333	149,879	437,996	601,511	1,573,134
Change in working capital	-72,868	-1,148	-29,214	-28,012	-101,367	-114,353
Working capital to gross revenue	43.4 %	55.6 %	37.9 %	56.0 %	42.1 %	42.3 %
Working capital to oper expense	58.7 %	93.1 %	51.6 %	76.2 %	54.8 %	57.9 %
Debt coverage ratio	2.16	1.80	1.68	2.10	1.52	2.50
Term debt coverage ratio	2.34	2.04	1.83	2.23	1.61	2.73
Replacement coverage ratio	1.57	1.56	1.33	1.41	1.16	1.79
Term debt to EBITDA	2.21	3.03	2.90	2.06	2.82	1.98
Solvency (end of year at cost)						
Number of farms	203	16	27	39	58	60
Total assets	4,839,642	862,582	1,295,225	2,539,163	4,083,538	9,936,670
Total liabilities	1,822,392	413,551	644,600	776,541	1,671,571	3,623,072
Net worth	3,017,249	449,032	650,624	1,762,622	2,411,968	6,313,599
Net worth change	232,157	22,189	46,226	92,189	150,482	552,536
Farm debt to asset ratio	39 %	50 %	53 %	34 %	42 %	37 %
Total debt to asset ratio	38 %	48 %	50 %	31 %	41 %	36 %
Change in earned net worth %	8 %	5 %	8 %	6 %	7 %	10 %
Solvency (end of year at market)						
Number of farms	203	16	27	39	58	60
Total assets	6,390,704	1,019,136	1,774,521	3,214,762	5,340,991	13,271,633
Total liabilities	2,503,689	437,607	807,435	1,040,277	2,176,832	5,188,486
Net worth	3,887,015	581,529	967,085	2,174,484	3,164,159	8,083,147
Total net worth change	308,595	65,513	82,100	145,030	273,641	630,043
Farm debt to asset ratio	40 %	46 %	48 %	36 %	42 %	40 %
Total debt to asset ratio	39 %	43 %	46 %	32 %	41 %	39 %
Change in total net worth %	9 %	13 %	9 %	7 %	9 %	8 %
Nonfarm Information						
Net nonfarm income	41,886	54,702	54,309	38,106	30,360	46,433
Farms reporting living expenses	31	3	4	7	8	8
Total family living expense	94,641	-	-	73,465	77,213	164,573
Total living, invest, cap. purch	203,960	-	-	115,258	163,835	406,154
Crop Acres						
Total crop acres	1,943	268	565	973	1,713	3,954
Total crop acres owned	401	105	126	197	391	765
Total crop acres cash rented	1,502	163	351	734	1,311	3,132
Total crop acres share rented	40	-	88	43	11	57
Machinery value per crop acre	620	369	380	697	574	647

Financial Summary
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2023
(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	203	24	58	41	29	51
Income Statement						
Gross cash farm income	1,679,143	494,743	1,333,110	1,957,902	2,463,115	1,960,147
Total cash farm expense	1,298,164	380,218	1,048,135	1,539,641	1,929,718	1,461,238
Net cash farm income	380,979	114,525	284,975	418,261	533,396	498,909
Inventory change	4,680	40,334	91,961	51,366	-94,439	-92,528
Depreciation	-89,262	-11,309	-65,476	-102,099	-143,483	-111,844
Net farm income from operations	296,397	143,550	311,460	367,528	295,475	294,537
Gain or loss on capital sales	8,941	2,264	1,442	4,701	45,177	3,416
Average net farm income	305,338	145,814	312,902	372,228	340,652	297,953
Median net farm income	162,171	102,867	197,301	209,560	263,053	127,443
Profitability (cost)						
Rate of return on assets	6.1 %	14.1 %	9.7 %	6.4 %	4.3 %	4.6 %
Rate of return on equity	7.4 %	25.0 %	13.5 %	8.0 %	4.5 %	4.9 %
Operating profit margin	15.0 %	21.6 %	17.7 %	16.0 %	10.8 %	14.0 %
Asset turnover rate	40.8 %	65.4 %	54.6 %	40.1 %	40.2 %	32.8 %
Profitability (market)						
Rate of return on assets	5.7 %	14.4 %	8.8 %	7.6 %	3.8 %	3.9 %
Rate of return on equity	7.6 %	28.2 %	13.9 %	11.0 %	4.6 %	4.5 %
Operating profit margin	18.7 %	23.2 %	18.9 %	23.9 %	13.7 %	17.1 %
Asset turnover rate	30.6 %	62.0 %	46.8 %	31.6 %	28.1 %	22.9 %
Liquidity & Repayment (end of year)						
Current assets	1,356,514	283,589	978,510	1,688,638	1,879,551	1,726,892
Current liabilities	607,829	112,899	389,775	784,367	954,115	749,889
Current ratio	2.23	2.51	2.51	2.15	1.97	2.30
Working capital	748,685	170,690	588,735	904,271	925,436	977,003
Change in working capital	-72,868	-12,282	9,467	-65,510	-284,775	-80,435
Working capital to gross revenue	43.4 %	31.6 %	40.4 %	44.0 %	37.7 %	51.1 %
Working capital to oper expense	58.7 %	46.6 %	56.8 %	60.1 %	48.5 %	68.4 %
Debt coverage ratio	2.16	3.27	2.77	2.44	1.44	1.89
Term debt coverage ratio	2.34	3.90	3.04	2.68	1.51	2.02
Replacement coverage ratio	1.57	3.09	2.19	1.85	1.08	1.21
Term debt to EBITDA	2.21	1.69	1.51	2.34	2.92	2.42
Solvency (end of year at cost)						
Number of farms	203	24	58	41	29	51
Total assets	4,839,642	1,130,119	3,163,958	5,762,381	7,140,679	6,440,735
Total liabilities	1,822,392	603,044	1,260,562	2,225,493	3,038,265	2,019,706
Net worth	3,017,249	527,076	1,903,396	3,536,888	4,102,413	4,421,029
Net worth change	232,157	130,933	250,379	325,169	221,179	190,538
Farm debt to asset ratio	39 %	53 %	40 %	40 %	44 %	33 %
Total debt to asset ratio	38 %	53 %	40 %	39 %	43 %	31 %
Change in earned net worth %	8 %	33 %	15 %	10 %	6 %	5 %
Solvency (end of year at market)						
Number of farms	203	24	58	41	29	51
Total assets	6,390,704	1,213,993	3,704,108	7,329,441	9,923,583	9,118,585
Total liabilities	2,503,689	666,419	1,662,394	3,012,567	4,199,842	2,951,478
Net worth	3,887,015	547,574	2,041,714	4,316,874	5,723,741	6,167,107
Total net worth change	308,595	152,045	270,198	504,375	299,063	273,959
Farm debt to asset ratio	40 %	57 %	46 %	42 %	44 %	34 %
Total debt to asset ratio	39 %	55 %	45 %	41 %	42 %	32 %
Change in total net worth %	9 %	38 %	15 %	13 %	6 %	5 %
Nonfarm Information						
Net nonfarm income	41,886	40,549	35,933	73,969	20,694	35,544
Farms reporting living expenses	31	1	9	5	4	12
Total family living expense	94,641	-	68,345	111,005	-	92,567
Total living, invest, cap. purch	203,960	-	152,312	144,315	-	169,008
Crop Acres						
Total crop acres	1,943	599	1,553	2,249	3,055	2,139
Total crop acres owned	401	74	130	407	706	686
Total crop acres cash rented	1,502	491	1,392	1,762	2,346	1,413
Total crop acres share rented	40	34	32	80	2	41
Machinery value per crop acre	620	273	515	511	619	846

EXPLANATORY NOTES FOR CROPS TABLES

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

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

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.

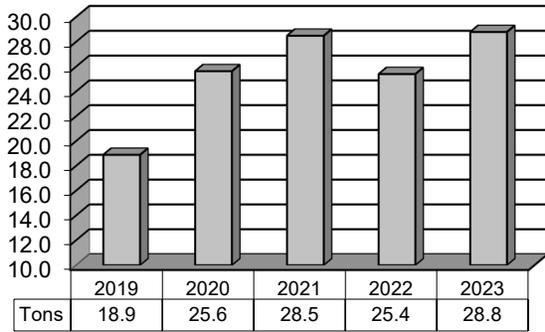
"Total direct expense per unit" and "Total dir & ovhd exp per unit" are calculated by dividing "Total direct expense per acre" and "Total dir & ovhd expenses per acre," respectively, by "Yield per acre." "With labor & management" is the breakeven yield after direct, overhead and a labor and management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

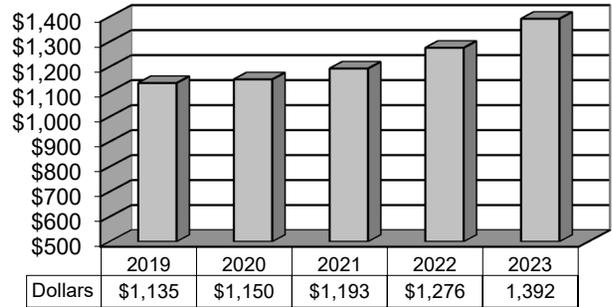
Rounding of individual items for the report may have caused minor discrepancies with the calculated totals.

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

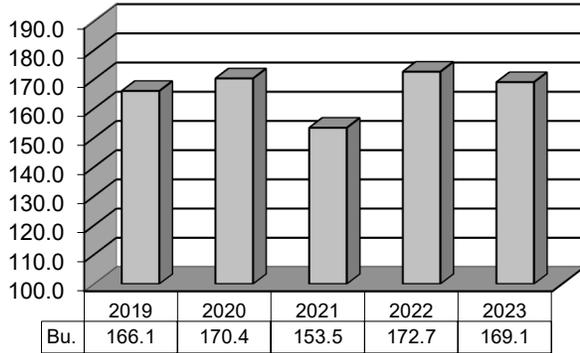
Sugar Beet Yields



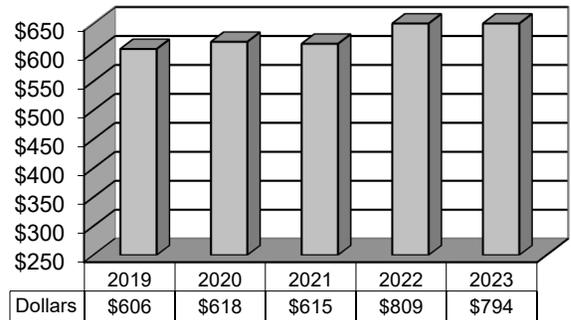
**Sugar Beet Total Listed Cost
(cash rented land)**



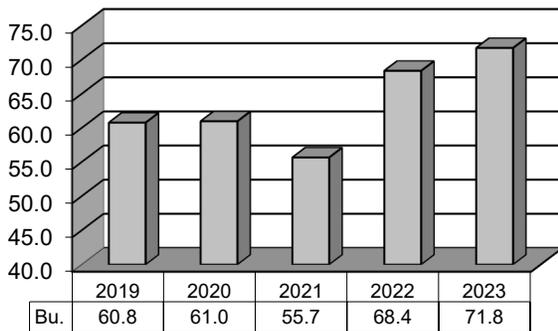
Corn Yields



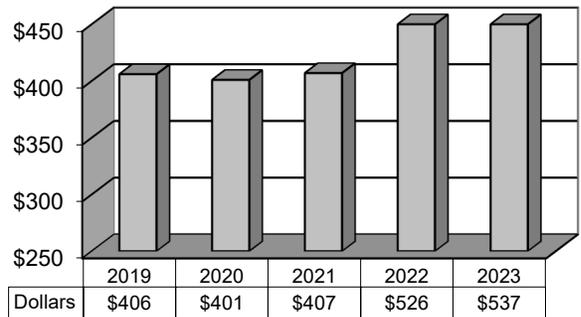
**Corn Total Listed Cost
(cash rented land)**



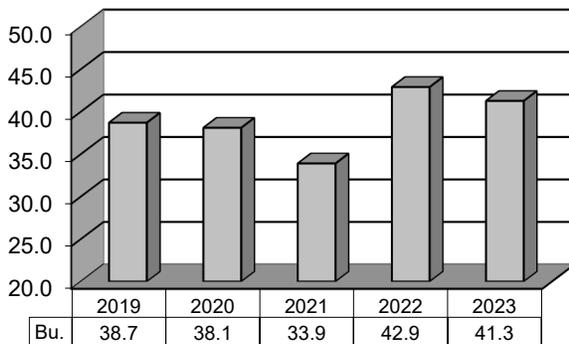
Spring Wheat Yields



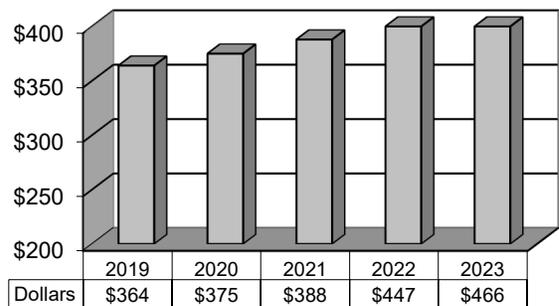
**Spring Wheat Total Listed Cost
(cash rented land)**



Soybeans Yields



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



Crop Enterprise Analysis
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2023
(Farms Sorted By Return to Overhead)

Barley on Cash Rent

	<u>Avg. Of All Farms</u>
Number of farms	9
Acres	187.80
Yield per acre (bu.)	91.56
Operators share of yield %	100.00
Value per bu.	7.25
Total product return per acre	663.93
Other crop income per acre	0.41
Gross return per acre	664.34
Direct Expenses	
Seed and plants	26.33
Fertilizer	117.21
Crop chemicals	35.02
Crop insurance	15.77
Drying expense	1.18
Fuel & oil	22.63
Repairs	42.52
Custom hire	17.80
Hired labor	1.05
Land rent	142.27
Operating interest	4.03
Miscellaneous	4.41
Total direct expenses per acre	430.22
Return over direct exp per acre	234.12
Overhead Expenses	
Hired labor	18.22
Machinery leases	2.56
Building leases	0.84
Farm insurance	8.95
Utilities	4.87
Dues & professional fees	4.30
Interest	3.04
Mach & bldg depreciation	21.29
Miscellaneous	2.08
Total overhead expenses per acre	66.15
Total dir & ovhd expenses per acre	496.36
Net return per acre	167.97
Government payments	-
Net return with govt pmts	167.97
Labor & management charge	37.07
Net return over lbr & mgt	130.90
Cost of Production	
Total direct expense per bu.	4.70
Total dir & ovhd exp per bu.	5.42
Less govt & other income	5.42
With labor & management	5.82
Net value per unit	7.25
Machinery cost per acre	108.97
Est. labor hours per acre	1.73

Crop Enterprise Analysis
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2023
(Farms Sorted By Return to Overhead)

Beans, Black Turtle on Cash Rent

	Avg. Of All Farms
Number of farms	6
Acres	541.74
Yield per acre (cwt.)	25.02
Operators share of yield %	100.00
Value per cwt.	39.65
Total product return per acre	992.13
Other crop income per acre	0.04
Gross return per acre	992.17
Direct Expenses	
Seed and plants	61.75
Fertilizer	127.42
Crop chemicals	127.32
Crop insurance	48.33
Fuel & oil	31.76
Repairs	64.73
Custom hire	4.62
Land rent	156.16
Operating interest	16.43
Miscellaneous	0.71
Total direct expenses per acre	639.21
Return over direct exp per acre	352.95
Overhead Expenses	
Hired labor	34.02
Machinery leases	1.04
Building leases	0.66
Farm insurance	8.25
Utilities	4.25
Dues & professional fees	4.54
Interest	5.07
Mach & bldg depreciation	44.04
Miscellaneous	1.37
Total overhead expenses per acre	103.24
Total dir & ovhd expenses per acre	742.45
Net return per acre	249.71
Government payments	-
Net return with govt pmts	249.71
Labor & management charge	53.68
Net return over lbr & mgt	196.04
Cost of Production	
Total direct expense per cwt.	25.55
Total dir & ovhd exp per cwt.	29.67
Less govt & other income	29.67
With labor & management	31.81
Net value per unit	39.65
Machinery cost per acre	146.14
Est. labor hours per acre	1.68

Crop Enterprise Analysis
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2023
(Farms Sorted By Return to Overhead)

Beans, Navy on Cash Rent

	<u>Avg. Of All Farms</u>
Number of farms	6
Acres	256.49
Yield per acre (cwt.)	27.34
Operators share of yield %	100.00
Value per cwt.	30.45
Total product return per acre	832.46
Crop insurance per acre	2.97
Gross return per acre	835.43
Direct Expenses	
Seed and plants	84.37
Fertilizer	78.36
Crop chemicals	85.41
Crop insurance	33.91
Fuel & oil	28.53
Repairs	52.38
Custom hire	5.94
Hired labor	1.53
Land rent	199.34
Hauling and trucking	0.59
Operating interest	9.08
Miscellaneous	1.31
Total direct expenses per acre	580.75
Return over direct exp per acre	254.67
Overhead Expenses	
Hired labor	38.13
Machinery leases	8.98
Building leases	1.89
Farm insurance	13.46
Utilities	4.40
Dues & professional fees	5.74
Interest	6.98
Mach & bldg depreciation	24.52
Miscellaneous	1.58
Total overhead expenses per acre	105.68
Total dir & ovhd expenses per acre	686.44
Net return per acre	148.99
Government payments	-
Net return with govt pmts	148.99
Labor & management charge	36.22
Net return over lbr & mgt	112.76
Cost of Production	
Total direct expense per cwt.	21.24
Total dir & ovhd exp per cwt.	25.11
Less govt & other income	25.00
With labor & management	26.32
Net value per unit	30.45
Machinery cost per acre	126.50
Est. labor hours per acre	1.96

Crop Enterprise Analysis
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2023
(Farms Sorted By Return to Overhead)

Corn on Owned Land

	<u>Ava. Of</u> <u>All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	79	15	16	16
Acres	283.84	331.70	250.79	307.06
Yield per acre (bu.)	171.46	162.96	177.64	184.49
Operators share of yield %	100.00	100.00	100.00	100.00
Value per bu.	4.55	4.39	4.45	4.83
Total product return per acre	780.15	715.88	791.16	891.55
Hedging gains/losses per acre	-1.71	2.58	-	8.88
Crop insurance per acre	34.25	13.37	19.71	60.02
Other crop income per acre	7.44	2.52	1.08	6.31
Gross return per acre	820.12	734.35	811.95	966.76
Direct Expenses				
Seed and plants	100.32	107.75	96.89	103.57
Fertilizer	203.30	225.13	199.87	205.27
Crop chemicals	37.27	39.27	30.84	32.42
Crop insurance	30.58	27.04	35.96	25.25
Driving expense	9.36	9.68	7.91	16.00
Storage	0.37	0.18	0.78	-
Fuel & oil	36.15	37.78	36.90	32.93
Repairs	67.36	89.63	70.54	53.51
Custom hire	8.67	2.52	6.18	16.85
Hired labor	3.08	4.59	0.78	4.78
Machinery leases	2.44	0.36	2.46	7.82
Utilities	0.51	-	1.68	0.71
Marketing	0.70	1.76	0.59	0.74
Operating interest	15.47	24.30	9.89	12.12
Miscellaneous	2.87	3.60	1.95	4.73
Total direct expenses per acre	518.46	573.58	503.21	516.69
Return over direct exp per acre	301.66	160.77	308.75	450.06
Overhead Expenses				
Hired labor	35.68	51.93	54.50	16.48
Machinery leases	7.15	14.21	2.77	4.98
Building leases	0.80	0.25	1.07	1.20
RE & pers. property taxes	27.15	27.62	29.19	27.94
Farm insurance	12.68	15.86	13.57	9.55
Utilities	6.85	10.03	6.69	3.69
Dues & professional fees	5.20	5.65	7.56	2.71
Interest	80.27	81.57	72.11	72.82
Mach & bldg depreciation	54.18	63.05	59.98	49.00
Miscellaneous	5.75	9.96	3.39	7.26
Total overhead expenses per acre	235.70	280.14	250.81	195.62
Total dir & ovhd expenses per acre	754.16	853.72	754.02	712.31
Net return per acre	65.96	-119.37	57.93	254.44
Government payments	-	-	-	-
Net return with govt pmts	65.96	-119.37	57.93	254.44
Labor & management charge	55.40	54.09	54.77	36.28
Net return over lbr & mgt	10.56	-173.46	3.17	218.16
Cost of Production				
Total direct expense per bu.	3.02	3.52	2.83	2.80
Total dir & ovhd exp per bu.	4.40	5.24	4.24	3.86
Less govt & other income	4.17	5.13	4.13	3.45
With labor & management	4.49	5.46	4.44	3.65
Net value per unit	4.54	4.41	4.45	4.88
Machinery cost per acre	175.55	204.64	179.96	166.06
Est. labor hours per acre	2.62	3.28	2.73	2.14

Crop Enterprise Analysis
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2023
(Farms Sorted By Return to Overhead)

Corn on Cash Rent

	<u>Ava. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	134	26	27	27
Acres	580.99	537.97	774.81	568.40
Yield per acre (bu.)	166.77	162.29	170.55	166.08
Operators share of yield %	100.00	100.00	100.00	100.00
Value per bu.	4.61	4.30	4.72	4.95
Total product return per acre	769.08	697.97	805.36	821.86
Hedging gains/losses per acre	0.27	-0.04	-12.96	15.53
Crop insurance per acre	43.02	12.08	41.33	81.50
Other crop income per acre	4.00	1.74	5.27	6.75
Gross return per acre	816.38	711.75	839.00	925.64
Direct Expenses				
Seed and plants	100.93	105.12	93.74	99.66
Fertilizer	196.66	215.64	200.54	168.54
Crop chemicals	38.48	44.84	39.28	34.04
Crop insurance	27.59	27.03	31.24	27.30
Drying expense	10.12	7.91	10.43	12.51
Storage	0.85	0.21	0.11	0.02
Fuel & oil	35.92	41.92	34.20	31.77
Repairs	68.53	87.75	65.70	53.72
Custom hire	9.68	7.67	8.56	13.01
Hired labor	3.77	0.21	6.16	1.73
Land rent	164.76	161.99	181.25	159.24
Machinery leases	1.95	0.24	0.31	2.97
Marketing	0.98	2.03	0.09	0.94
Operating interest	14.80	17.11	15.57	9.22
Miscellaneous	2.85	2.35	1.73	4.40
Total direct expenses per acre	677.89	722.03	688.90	619.08
Return over direct exp per acre	138.49	-10.28	150.10	306.57
Overhead Expenses				
Hired labor	28.37	38.93	29.18	24.80
Machinery leases	7.37	8.38	8.38	6.89
Building leases	1.20	0.86	0.94	1.29
Farm insurance	11.23	15.34	11.52	7.73
Utilities	5.22	7.20	5.21	3.27
Dues & professional fees	4.60	6.85	4.39	3.18
Interest	5.78	9.18	4.51	4.27
Mach & bldg depreciation	46.88	50.57	54.11	43.44
Miscellaneous	5.06	5.77	3.40	3.80
Total overhead expenses per acre	115.71	143.07	121.65	98.67
Total dir & ovhd expenses per acre	793.60	865.10	810.54	717.75
Net return per acre	22.78	-153.35	28.45	207.89
Government payments	-	-	-	-
Net return with govt pmts	22.78	-153.35	28.45	207.89
Labor & management charge	53.66	54.66	44.56	54.52
Net return over lbr & mgt	-30.88	-208.01	-16.11	153.38
Cost of Production				
Total direct expense per bu.	4.06	4.45	4.04	3.73
Total dir & ovhd exp per bu.	4.76	5.33	4.75	4.32
Less govt & other income	4.47	5.25	4.56	3.70
With labor & management	4.80	5.58	4.82	4.03
Net value per unit	4.61	4.30	4.65	5.04
Machinery cost per acre	172.79	202.12	170.90	152.12
Est. labor hours per acre	2.53	2.76	2.17	2.73

Crop Enterprise Analysis
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2023
(Farms Sorted By Return to Overhead)

Corn Silage on Owned Land

	<u>Avg. Of All Farms</u>
Number of farms	5
Acres	138.32
Yield per acre (ton)	18.25
Operators share of yield %	100.00
Value per ton	37.64
Total product return per acre	686.99
Crop insurance per acre	97.18
Gross return per acre	784.17
Direct Expenses	
Seed and plants	112.06
Fertilizer	206.86
Crop chemicals	53.56
Crop insurance	28.62
Drying expense	6.47
Fuel & oil	25.79
Repairs	45.73
Hired labor	23.46
Operating interest	20.91
Miscellaneous	0.65
Total direct expenses per acre	524.11
Return over direct exp per acre	260.06
Overhead Expenses	
Hired labor	4.66
Machinery leases	3.39
Building leases	1.63
RE & pers. property taxes	28.81
Farm insurance	14.67
Utilities	4.51
Dues & professional fees	1.99
Interest	109.86
Mach & bldg depreciation	42.89
Miscellaneous	6.22
Total overhead expenses per acre	218.63
Total dir & ovhd expenses per acre	742.74
Net return per acre	41.43
Government payments	-
Net return with govt pmts	41.43
Labor & management charge	47.58
Net return over lbr & mgt	-6.15
Cost of Production	
Total direct expense per ton	28.72
Total dir & ovhd exp per ton	40.70
Less govt & other income	35.37
With labor & management	37.98
Net value per unit	37.64
Machinery cost per acre	122.03
Est. labor hours per acre	2.51

Crop Enterprise Analysis
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2023
(Farms Sorted By Return to Overhead)

Corn Silage on Cash Rent

	<u>Avg. Of All Farms</u>
Number of farms	11
Acres	262.71
Yield per acre (ton)	19.12
Operators share of yield %	100.00
Value per ton	37.38
Total product return per acre	714.78
Crop insurance per acre	71.23
Gross return per acre	786.01
Direct Expenses	
Seed and plants	105.93
Fertilizer	215.72
Crop chemicals	50.05
Crop insurance	25.71
Drying expense	2.89
Fuel & oil	24.68
Repairs	49.17
Hired labor	14.64
Land rent	167.47
Machinery leases	0.07
Marketing	0.11
Operating interest	16.95
Miscellaneous	0.78
Total direct expenses per acre	674.19
Return over direct exp per acre	111.83
Overhead Expenses	
Hired labor	11.77
Machinery leases	5.36
Building leases	1.21
Farm insurance	13.20
Utilities	4.79
Dues & professional fees	3.36
Interest	6.15
Mach & bldg depreciation	38.75
Miscellaneous	5.30
Total overhead expenses per acre	89.88
Total dir & ovhd expenses per acre	764.07
Net return per acre	21.95
Government payments	-
Net return with govt pmts	21.95
Labor & management charge	44.51
Net return over lbr & mgt	-22.56
Cost of Production	
Total direct expense per ton	35.26
Total dir & ovhd exp per ton	39.96
Less govt & other income	36.24
With labor & management	38.56
Net value per unit	37.38
Machinery cost per acre	123.63
Est. labor hours per acre	2.09

Crop Enterprise Analysis
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2023
(Farms Sorted By Return to Overhead)

CRP on Owned Land

	Avg. Of All Farms
Number of farms	14
Acres	34.77
Gross return per acre	168.66
Direct Expenses	
Crop chemicals	1.79
Fuel & oil	5.17
Repairs	11.89
Operating interest	1.98
Total direct expenses per acre	20.83
Return over direct exp per acre	147.83
Overhead Expenses	
Hired labor	5.26
RE & pers. property taxes	25.30
Farm insurance	1.53
Utilities	0.64
Dues & professional fees	0.54
Interest	61.94
Mach & bldg depreciation	10.50
Miscellaneous	0.48
Total overhead expenses per acre	106.20
Total dir & ovhd expenses per acre	127.03
Net return per acre	41.63
Government payments	-
Net return with govt pmts	41.63
Labor & management charge	8.84
Net return over lbr & mgt	32.79
Net value per unit	1.00
Machinery cost per acre	27.37
Est. labor hours per acre	0.35

Crop Enterprise Analysis
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2023
(Farms Sorted By Return to Overhead)

Hay, Alfalfa on Owned Land

	<u>Avg. Of All Farms</u>
Number of farms	7
Acres	133.93
Yield per acre (ton)	3.11
Operators share of yield %	100.00
Value per ton	153.19
Total product return per acre	476.93
Crop insurance per acre	4.80
Other crop income per acre	4.04
Gross return per acre	485.77
Direct Expenses	
Seed and plants	3.58
Fertilizer	62.64
Crop chemicals	6.33
Crop insurance	1.77
Packaging and supplies	1.26
Fuel & oil	32.63
Repairs	83.41
Custom hire	0.43
Hired labor	0.33
Operating interest	15.88
Miscellaneous	0.46
Total direct expenses per acre	208.71
Return over direct exp per acre	277.07
Overhead Expenses	
Hired labor	66.12
Machinery leases	18.84
Building leases	0.22
RE & pers. property taxes	24.36
Farm insurance	9.46
Utilities	8.81
Dues & professional fees	2.37
Interest	43.23
Mach & bldg depreciation	36.47
Miscellaneous	5.20
Total overhead expenses per acre	215.08
Total dir & ovhd expenses per acre	423.79
Net return per acre	61.98
Government payments	-
Net return with govt pmts	61.98
Labor & management charge	45.00
Net return over lbr & mgt	16.98
Cost of Production	
Total direct expense per ton	67.04
Total dir & ovhd exp per ton	136.12
Less govt & other income	133.28
With labor & management	147.74
Net value per unit	153.19
Machinery cost per acre	169.69
Est. labor hours per acre	3.81

Crop Enterprise Analysis
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2023
(Farms Sorted By Return to Overhead)

Hay, Alfalfa on Cash Rent

	<u>Avg. Of All Farms</u>
Number of farms	13
Acres	132.58
Yield per acre (ton)	3.57
Operators share of yield %	100.00
Value per ton	165.55
Total product return per acre	591.02
Crop insurance per acre	5.49
Other crop income per acre	0.32
Gross return per acre	596.83
Direct Expenses	
Fertilizer	49.62
Crop chemicals	7.56
Crop insurance	3.15
Packaging and supplies	11.16
Fuel & oil	38.24
Repairs	73.98
Custom hire	0.38
Land rent	155.40
Hauling and trucking	5.98
Operating interest	13.97
Miscellaneous	0.92
Total direct expenses per acre	360.34
Return over direct exp per acre	236.49
Overhead Expenses	
Hired labor	11.57
Machinery leases	6.63
Building leases	3.19
Farm insurance	10.55
Utilities	5.04
Dues & professional fees	4.41
Interest	5.48
Mach & bldg depreciation	47.88
Miscellaneous	3.94
Total overhead expenses per acre	98.69
Total dir & ovhd expenses per acre	459.03
Net return per acre	137.80
Government payments	-
Net return with govt pmts	137.80
Labor & management charge	66.36
Net return over lbr & mgt	71.44
Cost of Production	
Total direct expense per ton	100.93
Total dir & ovhd exp per ton	128.58
Less govt & other income	126.95
With labor & management	145.54
Net value per unit	165.55
Machinery cost per acre	168.20
Est. labor hours per acre	3.05

Crop Enterprise Analysis
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2023
(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	89	17	18	18
Acres	264.61	175.55	297.37	249.95
Yield per acre (bu.)	41.59	34.58	40.77	48.10
Operators share of yield %	100.00	100.00	100.00	100.00
Value per bu.	12.31	11.98	12.39	12.38
Total product return per acre	512.00	414.18	505.07	595.54
Hedging gains/losses per acre	0.99	8.43	-	-
Crop insurance per acre	16.73	35.81	18.27	17.25
Other crop income per acre	4.38	3.91	7.08	2.40
Gross return per acre	534.10	462.33	530.42	615.19
Direct Expenses				
Seed and plants	64.89	70.07	69.38	66.93
Fertilizer	23.99	38.50	16.02	23.82
Crop chemicals	55.05	63.29	54.78	51.69
Crop insurance	23.14	26.58	24.04	27.98
Storage	0.65	0.53	0.05	1.14
Fuel & oil	20.46	20.13	18.80	20.45
Repairs	37.10	47.21	38.62	29.12
Custom hire	7.14	4.98	8.21	3.58
Hired labor	2.82	15.01	0.50	0.62
Machinery leases	1.28	0.98	0.60	2.06
Marketing	0.92	3.91	0.21	0.00
Operating interest	7.88	13.60	8.30	3.26
Miscellaneous	3.12	2.34	3.05	2.89
Total direct expenses per acre	248.44	307.13	242.57	233.55
Return over direct exp per acre	285.66	155.19	287.85	381.64
Overhead Expenses				
Hired labor	16.87	12.76	19.97	14.98
Machinery leases	4.43	2.97	9.56	5.80
Building leases	0.53	0.80	0.26	0.28
RE & pers. property taxes	26.62	28.69	25.67	17.67
Farm insurance	8.89	12.86	7.42	9.35
Utilities	3.70	6.71	2.97	3.48
Dues & professional fees	3.79	4.42	3.84	4.68
Interest	62.71	110.12	77.57	20.05
Mach & bldg depreciation	29.61	40.57	21.97	31.59
Miscellaneous	3.42	7.54	3.88	2.20
Total overhead expenses per acre	160.57	227.44	173.10	110.08
Total dir & ovhd expenses per acre	409.00	534.57	415.67	343.63
Net return per acre	125.10	-72.25	114.75	271.56
Government payments	-	-	-	-
Net return with govt pmts	125.10	-72.25	114.75	271.56
Labor & management charge	33.60	43.15	29.49	38.28
Net return over lbr & mgt	91.49	-115.40	85.26	233.28
Cost of Production				
Total direct expense per bu.	5.97	8.88	5.95	4.86
Total dir & ovhd exp per bu.	9.84	15.46	10.20	7.14
Less govt & other income	9.30	14.07	9.57	6.74
With labor & management	10.11	15.31	10.30	7.53
Net value per unit	12.34	12.22	12.39	12.38
Machinery cost per acre	99.93	117.00	98.21	92.65
Est. labor hours per acre	1.57	2.11	1.78	1.38

Crop Enterprise Analysis
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2023
(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	155	31	31	31
Acres	603.22	389.86	650.67	475.96
Yield per acre (bu.)	40.94	36.27	40.26	46.76
Operators share of yield %	100.00	100.00	100.00	100.00
Value per bu.	12.51	12.38	12.57	12.45
Total product return per acre	512.16	448.96	506.08	582.11
Hedging gains/losses per acre	0.45	0.13	0.05	0.61
Crop insurance per acre	14.58	18.19	12.14	9.58
Other crop income per acre	3.81	3.49	2.74	2.72
Gross return per acre	531.01	470.76	521.01	595.01
Direct Expenses				
Seed and plants	64.82	76.57	58.25	65.05
Fertilizer	24.51	34.91	23.70	16.97
Crop chemicals	53.35	63.96	49.40	48.72
Crop insurance	22.54	23.57	22.65	22.50
Fuel & oil	20.34	22.22	21.09	15.77
Repairs	38.49	47.40	39.52	30.44
Custom hire	6.67	13.56	2.47	8.82
Hired labor	1.50	2.76	3.00	0.32
Land rent	152.37	158.41	166.49	129.81
Machinery leases	1.26	1.72	1.06	2.56
Marketing	0.81	0.67	0.35	0.57
Operating interest	6.86	11.17	6.84	5.14
Miscellaneous	3.53	4.01	3.73	2.17
Total direct expenses per acre	397.05	460.95	398.55	348.84
Return over direct exp per acre	133.96	9.81	122.46	246.17
Overhead Expenses				
Hired labor	17.37	16.32	14.57	14.18
Machinery leases	4.26	4.06	7.36	6.36
Building leases	0.59	1.34	0.67	0.43
Farm insurance	7.94	8.34	7.18	6.95
Utilities	3.43	3.86	2.93	2.88
Dues & professional fees	3.63	3.52	3.16	3.38
Interest	3.10	2.39	3.07	2.50
Mach & bldg depreciation	26.33	29.03	23.69	21.91
Miscellaneous	2.87	3.31	2.77	3.99
Total overhead expenses per acre	69.51	72.18	65.39	62.57
Total dir & ovhd expenses per acre	466.56	533.13	463.94	411.41
Net return per acre	64.45	-62.37	57.07	183.61
Government payments	-	-	-	-
Net return with govt pmts	64.45	-62.37	57.07	183.61
Labor & management charge	32.54	35.49	30.79	34.10
Net return over lbr & mgt	31.91	-97.86	26.27	149.50
Cost of Production				
Total direct expense per bu.	9.70	12.71	9.90	7.46
Total dir & ovhd exp per bu.	11.40	14.70	11.52	8.80
Less govt & other income	10.94	14.10	11.15	8.52
With labor & management	11.73	15.08	11.92	9.25
Net value per unit	12.52	12.38	12.57	12.46
Machinery cost per acre	98.39	118.78	95.72	85.95
Est. labor hours per acre	1.46	1.43	1.68	1.19

Crop Enterprise Analysis
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2023
(Farms Sorted By Return to Overhead)

Soybeans on Share Rent

	<u>Avg. Of All Farms</u>
Number of farms	10
Acres	280.59
Yield per acre (bu.)	38.96
Operators share of yield %	68.06
Value per bu.	12.54
Total product return per acre	332.57
Hedging gains/losses per acre	-0.14
Crop insurance per acre	0.79
Other crop income per acre	3.11
Gross return per acre	336.32
Direct Expenses	
Seed and plants	71.45
Fertilizer	25.10
Crop chemicals	47.73
Crop insurance	15.75
Storage	1.05
Fuel & oil	18.73
Repairs	34.48
Custom hire	2.91
Hired labor	3.36
Marketing	0.42
Operating interest	6.05
Miscellaneous	2.00
Total direct expenses per acre	229.03
Return over direct exp per acre	107.30
Overhead Expenses	
Hired labor	10.50
Machinery leases	11.52
Building leases	0.81
Farm insurance	7.29
Utilities	2.51
Dues & professional fees	5.13
Interest	2.86
Mach & bldg depreciation	18.41
Miscellaneous	2.98
Total overhead expenses per acre	62.01
Total dir & ovhd expenses per acre	291.04
Net return per acre	45.28
Government payments	-
Net return with govt pmts	45.28
Labor & management charge	31.47
Net return over lbr & mgt	13.81
Cost of Production	
Total direct expense per bu.	8.64
Total dir & ovhd exp per bu.	10.98
Less govt & other income	10.83
With labor & management	12.02
Net value per unit	12.54
Machinery cost per acre	87.07
Est. labor hours per acre	1.98

Crop Enterprise Analysis
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2023
(Farms Sorted By Return to Overhead)

Soybeans, Food on Cash Rent

	<u>Avg. Of All Farms</u>
Number of farms	6
Acres	626.99
Yield per acre (bu.)	31.40
Operators share of yield %	100.00
Value per bu.	18.22
Total product return per acre	572.26
Crop insurance per acre	13.67
Other crop income per acre	8.31
Gross return per acre	594.25
Direct Expenses	
Seed and plants	40.68
Fertilizer	24.46
Crop chemicals	65.25
Crop insurance	21.06
Fuel & oil	15.39
Repairs	30.94
Custom hire	1.75
Hired labor	0.70
Land rent	141.48
Hauling and trucking	1.37
Operating interest	12.55
Miscellaneous	2.03
Total direct expenses per acre	357.66
Return over direct exp per acre	236.59
Overhead Expenses	
Hired labor	6.46
Machinery leases	1.82
Farm insurance	6.29
Utilities	2.85
Dues & professional fees	1.65
Interest	2.05
Mach & bldg depreciation	26.33
Miscellaneous	3.10
Total overhead expenses per acre	50.55
Total dir & ovhd expenses per acre	408.21
Net return per acre	186.04
Government payments	-
Net return with govt pmts	186.04
Labor & management charge	45.29
Net return over lbr & mgt	140.75
Cost of Production	
Total direct expense per bu.	11.39
Total dir & ovhd exp per bu.	13.00
Less govt & other income	12.30
With labor & management	13.74
Net value per unit	18.22
Machinery cost per acre	76.13
Est. labor hours per acre	1.33

Crop Enterprise Analysis
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2023
(Farms Sorted By Return to Overhead)

Soybeans Seed on Owned Land

	<u>Avg. Of All Farms</u>
Number of farms	8
Acres	233.52
Yield per acre (bu.)	40.64
Operators share of yield %	100.00
Value per bu.	13.17
Total product return per acre	535.20
Crop insurance per acre	5.60
Gross return per acre	540.81
Direct Expenses	
Seed and plants	65.31
Fertilizer	33.03
Crop chemicals	50.88
Crop insurance	23.40
Drying expense	0.10
Storage	1.88
Fuel & oil	15.99
Repairs	37.90
Custom hire	3.15
Operating interest	10.76
Miscellaneous	0.75
Total direct expenses per acre	243.15
Return over direct exp per acre	297.66
Overhead Expenses	
Hired labor	22.25
Machinery leases	4.08
RE & pers. property taxes	20.25
Farm insurance	6.27
Utilities	3.36
Dues & professional fees	4.84
Interest	74.37
Mach & bldg depreciation	12.21
Miscellaneous	3.06
Total overhead expenses per acre	150.69
Total dir & ovhd expenses per acre	393.85
Net return per acre	146.96
Government payments	-
Net return with govt pmts	146.96
Labor & management charge	32.59
Net return over lbr & mgt	114.37
Cost of Production	
Total direct expense per bu.	5.98
Total dir & ovhd exp per bu.	9.69
Less govt & other income	9.55
With labor & management	10.36
Net value per unit	13.17
Machinery cost per acre	76.63
Est. labor hours per acre	1.16

Crop Enterprise Analysis
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2023
(Farms Sorted By Return to Overhead)

Soybeans Seed on Cash Rent

	<u>Avg. Of All Farms</u>
Number of farms	10
Acres	715.02
Yield per acre (bu.)	38.35
Operators share of yield %	100.00
Value per bu.	13.48
Total product return per acre	516.97
Crop insurance per acre	30.45
Other crop income per acre	2.18
Gross return per acre	549.59
Direct Expenses	
Seed and plants	65.67
Fertilizer	34.31
Crop chemicals	55.16
Crop insurance	19.55
Storage	1.41
Fuel & oil	20.35
Repairs	39.98
Custom hire	2.02
Hired labor	0.10
Land rent	150.27
Hauling and trucking	0.87
Operating interest	8.55
Miscellaneous	3.34
Total direct expenses per acre	401.56
Return over direct exp per acre	148.03
Overhead Expenses	
Hired labor	21.04
Machinery leases	4.74
Farm insurance	7.62
Utilities	4.19
Dues & professional fees	4.46
Interest	3.00
Mach & bldg depreciation	34.81
Miscellaneous	3.42
Total overhead expenses per acre	83.28
Total dir & ovhd expenses per acre	484.84
Net return per acre	64.75
Government payments	-
Net return with govt pmts	64.75
Labor & management charge	37.03
Net return over lbr & mgt	27.72
Cost of Production	
Total direct expense per bu.	10.47
Total dir & ovhd exp per bu.	12.64
Less govt & other income	11.79
With labor & management	12.76
Net value per unit	13.48
Machinery cost per acre	103.88
Est. labor hours per acre	1.28

Crop Enterprise Analysis
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2023
(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	29	5	6	6
Acres	218.82	187.30	209.95	156.62
Yield per acre (ton)	28.91	25.37	30.84	34.61
Operators share of yield %	100.00	100.00	100.00	100.00
Value per ton	83.50	69.88	73.81	88.61
Total product return per acre	2,413.97	1,772.77	2,276.52	3,067.14
Crop insurance per acre	1.53	8.51	-	-
Other crop income per acre	4.36	7.01	3.79	2.45
Gross return per acre	2,419.86	1,788.29	2,280.31	3,069.59
Direct Expenses				
Seed and plants	273.20	258.14	292.42	261.00
Fertilizer	148.64	118.11	161.98	144.71
Crop chemicals	145.09	142.17	148.51	154.71
Crop insurance	39.50	36.75	42.30	34.48
Fuel & oil	77.80	71.51	86.71	88.54
Repairs	142.32	160.24	110.67	166.20
Custom hire	16.68	46.70	22.86	16.26
Hired labor	27.74	33.96	17.77	24.08
Machinery leases	0.28	-	1.35	-
Hauling and trucking	10.84	2.98	7.72	15.67
Operating interest	35.00	39.55	48.08	18.15
Miscellaneous	4.40	15.09	2.60	4.38
Total direct expenses per acre	921.48	925.20	942.97	928.19
Return over direct exp per acre	1,498.38	863.09	1,337.33	2,141.39
Overhead Expenses				
Hired labor	79.92	109.63	22.90	77.42
Machinery leases	11.51	39.61	10.34	18.35
Building leases	1.28	1.02	2.66	2.53
RE & pers. property taxes	28.82	28.18	36.87	31.39
Farm insurance	25.02	9.79	29.65	42.85
Utilities	11.90	11.50	8.70	13.66
Dues & professional fees	15.86	7.58	6.00	44.57
Interest	74.04	99.63	97.63	29.97
Mach & bldg depreciation	103.98	130.54	86.85	133.85
Miscellaneous	27.23	10.42	3.65	129.23
Total overhead expenses per acre	379.55	447.91	305.24	523.83
Total dir & ovhd expenses per acre	1,301.03	1,373.11	1,248.21	1,452.02
Net return per acre	1,118.83	415.18	1,032.10	1,617.57
Government payments	-	-	-	-
Net return with govt pmts	1,118.83	415.18	1,032.10	1,617.57
Labor & management charge	125.98	102.79	97.99	173.50
Net return over lbr & mgt	992.85	312.39	934.11	1,444.07
Cost of Production				
Total direct expense per ton	31.87	36.47	30.57	26.82
Total dir & ovhd exp per ton	45.00	54.12	40.47	41.95
Less govt & other income	44.80	53.51	40.35	41.88
With labor & management	49.16	57.56	43.52	46.89
Net value per unit	83.50	69.88	73.81	88.61
Machinery cost per acre	352.78	429.16	323.46	424.53
Est. labor hours per acre	5.54	6.72	4.10	9.23

Crop Enterprise Analysis
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2023
(Farms Sorted By Return to Overhead)

Sugar Beets on Owned Land, Joint Venture

	Avg. Of All Farms
Number of farms	6
Acres	125.52
Yield per acre (ton)	26.46
Operators share of yield %	100.00
Value per ton	86.57
Total product return per acre	2,290.31
Other crop income per acre	8.53
Gross return per acre	2,298.85
Direct Expenses	
Seed and plants	296.00
Fertilizer	170.62
Crop chemicals	161.69
Crop insurance	48.35
Fuel & oil	93.58
Repairs	182.98
Custom hire	2.49
Hired labor	45.16
Stock/quota lease	217.16
Hauling and trucking	35.39
Operating interest	65.32
Miscellaneous	3.67
Total direct expenses per acre	1,322.41
Return over direct exp per acre	976.44
Overhead Expenses	
Hired labor	42.86
Machinery leases	21.77
Building leases	1.31
RE & pers. property taxes	38.23
Farm insurance	26.67
Utilities	21.41
Dues & professional fees	15.14
Interest	138.75
Mach & bldg depreciation	77.60
Miscellaneous	14.91
Total overhead expenses per acre	398.65
Total dir & ovhd expenses per acre	1,721.06
Net return per acre	577.79
Government payments	-
Net return with govt pmts	577.79
Labor & management charge	166.78
Net return over lbr & mgt	411.01
Cost of Production	
Total direct expense per ton	49.99
Total dir & ovhd exp per ton	65.06
Less govt & other income	64.73
With labor & management	71.04
Net value per unit	86.57
Machinery cost per acre	387.37
Est. labor hours per acre	5.44

Crop Enterprise Analysis
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2023
(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	63	12	12	13
Acres	255.51	230.34	200.69	126.79
Yield per acre (ton)	28.60	25.37	28.41	33.60
Operators share of yield %	100.00	100.00	100.00	100.00
Value per ton	79.48	68.54	81.10	88.92
Total product return per acre	2,272.89	1,738.64	2,303.80	2,987.75
Crop insurance per acre	11.54	13.71	-	-
Other crop income per acre	4.56	10.53	8.89	0.50
Gross return per acre	2,288.99	1,762.88	2,312.69	2,988.25
Direct Expenses				
Seed and plants	269.66	270.22	277.88	291.59
Fertilizer	146.99	167.05	132.69	124.23
Crop chemicals	151.19	136.15	154.94	131.67
Crop insurance	43.26	45.26	48.37	43.07
Fuel & oil	74.14	74.19	91.54	72.77
Repairs	143.38	154.93	161.59	117.70
Custom hire	25.41	54.78	18.18	13.90
Hired labor	28.09	14.84	39.98	51.82
Land rent	166.76	171.55	149.87	173.77
Machinery leases	1.25	2.23	0.02	-
Utilities	0.17	0.59	-	-
Hauling and trucking	30.24	16.12	60.44	26.88
Operating interest	22.96	26.41	19.99	25.78
Miscellaneous	8.10	15.38	9.63	2.55
Total direct expenses per acre	1,111.62	1,149.69	1,165.14	1,075.73
Return over direct exp per acre	1,177.37	613.20	1,147.55	1,912.52
Overhead Expenses				
Hired labor	84.65	85.05	65.46	40.42
Machinery leases	15.15	0.37	4.57	20.25
Building leases	3.60	0.35	1.40	4.27
Farm insurance	23.02	24.15	18.80	17.93
Utilities	12.48	9.56	14.43	12.03
Dues & professional fees	11.68	12.56	6.97	12.51
Interest	12.25	13.07	13.11	26.44
Mach & bldg depreciation	102.70	127.95	87.41	62.15
Miscellaneous	15.18	43.03	13.99	5.99
Total overhead expenses per acre	280.70	316.09	226.15	201.99
Total dir & ovhd expenses per acre	1,392.32	1,465.78	1,391.29	1,277.72
Net return per acre	896.67	297.10	921.40	1,710.53
Government payments	-	-	-	-
Net return with govt pmts	896.67	297.10	921.40	1,710.53
Labor & management charge	132.32	131.10	127.15	160.98
Net return over lbr & mgt	764.35	166.01	794.26	1,549.55
Cost of Production				
Total direct expense per ton	38.87	45.32	41.02	32.01
Total dir & ovhd exp per ton	48.69	57.78	48.98	38.02
Less govt & other income	48.12	56.83	48.67	38.01
With labor & management	52.75	62.00	53.14	42.80
Net value per unit	79.48	68.54	81.10	88.92
Machinery cost per acre	365.98	417.82	367.21	310.34
Est. labor hours per acre	5.46	5.01	4.73	4.71

Crop Enterprise Analysis
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2023
(Farms Sorted By Return to Overhead)

Sugar Beets on Cash Rent, Joint Venture

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	43	8	8	9
Acres	267.25	392.59	237.04	225.70
Yield per acre (ton)	29.31	27.17	30.12	29.46
Operators share of yield %	100.00	100.00	100.00	100.00
Value per ton	86.57	86.29	86.00	92.08
Total product return per acre	2,536.98	2,344.37	2,590.24	2,712.81
Crop insurance per acre	1.53	1.01	4.89	-
Other crop income per acre	5.07	3.26	-	11.82
Gross return per acre	2,543.58	2,348.64	2,595.13	2,724.63
Direct Expenses				
Seed and plants	274.18	277.49	271.99	260.83
Fertilizer	141.27	137.46	140.61	135.70
Crop chemicals	151.81	152.86	166.66	140.94
Crop insurance	45.25	41.60	41.03	56.95
Fuel & oil	77.33	90.54	78.88	63.31
Repairs	141.81	177.30	155.85	106.98
Custom hire	16.14	23.71	10.86	14.75
Hired labor	40.86	40.65	49.59	36.93
Land rent	158.28	159.42	170.04	128.00
Stock/quota lease	363.79	469.35	335.71	198.44
Machinery leases	0.75	0.40	-	3.64
Hauling and trucking	44.19	64.14	11.26	46.21
Operating interest	26.20	42.93	37.92	13.63
Miscellaneous	5.65	6.36	4.53	5.08
Total direct expenses per acre	1,487.51	1,684.21	1,474.94	1,211.37
Return over direct exp per acre	1,056.07	664.43	1,120.19	1,513.26
Overhead Expenses				
Hired labor	60.65	65.75	61.94	33.40
Machinery leases	15.45	7.70	25.79	0.01
Building leases	2.80	1.31	0.06	0.22
Farm insurance	17.70	20.70	23.27	13.17
Utilities	10.18	12.01	9.26	7.23
Dues & professional fees	10.79	14.52	10.56	3.99
Interest	13.65	18.66	17.80	12.38
Mach & bldg depreciation	94.93	102.32	69.36	109.00
Miscellaneous	10.02	11.42	5.71	10.61
Total overhead expenses per acre	236.17	254.40	223.76	190.01
Total dir & ovhd expenses per acre	1,723.68	1,938.61	1,698.70	1,401.38
Net return per acre	819.90	410.03	896.43	1,323.25
Government payments	-	-	-	-
Net return with govt pmts	819.90	410.03	896.43	1,323.25
Labor & management charge	151.00	147.07	177.06	144.72
Net return over lbr & mgt	668.90	262.96	719.37	1,178.53
Cost of Production				
Total direct expense per ton	50.76	61.99	48.97	41.12
Total dir & ovhd exp per ton	58.82	71.35	56.40	47.57
Less govt & other income	58.59	71.20	56.24	47.17
With labor & management	63.74	76.61	62.11	52.08
Net value per unit	86.57	86.29	86.00	92.08
Machinery cost per acre	352.18	411.26	355.26	303.00
Est. labor hours per acre	5.13	4.65	5.98	4.62

Crop Enterprise Analysis
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2023
(Farms Sorted By Return to Overhead)

Sunflowers on Cash Rent

	<u>Avg. Of All Farms</u>
Number of farms	5
Acres	316.67
Yield per acre (cwt.)	28.89
Operators share of yield %	100.00
Value per cwt.	19.13
Total product return per acre	552.80
Other crop income per acre	1.05
Gross return per acre	553.85
Direct Expenses	
Seed and plants	37.36
Fertilizer	87.41
Crop chemicals	48.75
Crop insurance	28.96
Storage	1.05
Fuel & oil	16.08
Repairs	47.22
Custom hire	16.36
Hired labor	12.98
Land rent	140.59
Machinery leases	0.88
Hauling and trucking	0.82
Operating interest	10.76
Miscellaneous	1.99
Total direct expenses per acre	451.21
Return over direct exp per acre	102.64
Overhead Expenses	
Hired labor	14.61
Machinery leases	3.07
Farm insurance	11.93
Utilities	3.41
Dues & professional fees	4.49
Interest	2.77
Mach & bldg depreciation	37.83
Miscellaneous	7.34
Total overhead expenses per acre	85.45
Total dir & ovhd expenses per acre	536.66
Net return per acre	17.20
Government payments	-
Net return with govt pmts	17.20
Labor & management charge	52.48
Net return over lbr & mgt	-35.29
Cost of Production	
Total direct expense per cwt.	15.62
Total dir & ovhd exp per cwt.	18.57
Less govt & other income	18.54
With labor & management	20.35
Net value per unit	19.13
Machinery cost per acre	123.89
Est. labor hours per acre	2.17

Crop Enterprise Analysis
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2023
(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	56	11	11	12
Acres	240.50	219.15	246.00	234.22
Yield per acre (bu.)	72.37	60.56	73.53	80.23
Operators share of yield %	100.00	100.00	100.00	100.00
Value per bu.	7.27	7.07	7.10	7.47
Total product return per acre	526.50	428.41	522.16	599.40
Crop insurance per acre	4.60	14.63	5.73	0.38
Other crop income per acre	7.59	2.97	5.78	10.65
Gross return per acre	538.68	446.01	533.67	610.42
Direct Expenses				
Seed and plants	31.24	27.68	37.79	29.14
Fertilizer	154.09	154.03	155.45	144.24
Crop chemicals	42.21	40.32	47.11	40.82
Crop insurance	22.17	17.09	19.84	22.60
Drying expense	0.47	0.62	-	1.20
Storage	1.34	-	0.66	-
Fuel & oil	20.51	20.24	19.87	20.13
Repairs	38.96	41.83	35.21	32.54
Custom hire	6.10	2.28	4.29	5.92
Hired labor	0.92	1.44	-	0.28
Operating interest	8.35	9.27	7.12	6.47
Miscellaneous	3.38	1.63	1.32	2.97
Total direct expenses per acre	329.73	316.43	328.66	306.30
Return over direct exp per acre	208.95	129.58	205.00	304.12
Overhead Expenses				
Hired labor	21.35	20.33	19.40	19.97
Machinery leases	4.35	8.09	6.68	1.19
Building leases	0.38	0.06	0.53	0.08
RE & pers. property taxes	25.74	35.09	31.20	20.28
Farm insurance	10.16	7.27	8.67	10.08
Utilities	4.04	3.11	3.80	2.85
Dues & professional fees	4.59	3.79	4.66	5.35
Interest	67.97	131.55	62.21	50.53
Mach & bldg depreciation	29.42	24.75	28.61	22.81
Miscellaneous	2.32	2.54	2.94	2.20
Total overhead expenses per acre	170.31	236.58	168.70	135.33
Total dir & ovhd expenses per acre	500.04	553.02	497.36	441.63
Net return per acre	38.64	-107.00	36.31	168.79
Government payments	-	-	-	-
Net return with govt pmts	38.64	-107.00	36.31	168.79
Labor & management charge	34.24	27.31	37.73	44.74
Net return over lbr & mgt	4.41	-134.31	-1.43	124.05
Cost of Production				
Total direct expense per bu.	4.56	5.23	4.47	3.82
Total dir & ovhd exp per bu.	6.91	9.13	6.76	5.50
Less govt & other income	6.74	8.84	6.61	5.37
With labor & management	7.21	9.29	7.12	5.92
Net value per unit	7.27	7.07	7.10	7.47
Machinery cost per acre	98.56	97.41	94.18	82.49
Est. labor hours per acre	1.53	1.51	1.39	1.35

Crop Enterprise Analysis
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2023
(Farms Sorted By Return to Overhead)

Wheat, Spring on Cash Rent

	<u>Ava. Of</u> <u>All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	116	23	23	24
Acres	502.85	315.66	550.92	506.52
Yield per acre (bu.)	71.13	53.20	70.55	82.98
Operators share of yield %	100.00	100.00	100.00	100.00
Value per bu.	7.30	7.13	7.15	7.57
Other product return per acre	0.09	-	-	-
Total product return per acre	519.54	379.10	504.49	628.27
Hedging gains/losses per acre	2.45	2.07	7.11	2.16
Crop insurance per acre	7.01	10.31	10.65	6.18
Other crop income per acre	3.96	2.47	3.95	6.81
Gross return per acre	532.96	393.94	526.20	643.42
Direct Expenses				
Seed and plants	31.11	29.23	30.83	30.30
Fertilizer	152.16	154.21	151.82	146.41
Crop chemicals	41.06	36.85	38.07	44.30
Crop insurance	18.80	16.31	20.20	19.05
Driving expense	0.80	1.19	0.23	0.64
Storage	1.03	0.44	2.62	0.57
Fuel & oil	20.69	21.13	19.72	21.24
Repairs	37.86	44.63	37.35	32.41
Custom hire	7.03	3.38	3.99	6.42
Hired labor	0.53	2.97	0.01	0.07
Land rent	143.25	161.29	137.38	141.63
Machinery leases	0.80	0.15	2.40	0.35
Hauling and trucking	0.16	-	0.64	-
Marketing	0.84	0.25	0.25	2.02
Operating interest	5.46	7.76	6.19	4.23
Miscellaneous	2.78	3.08	3.31	3.35
Total direct expenses per acre	464.36	482.87	455.02	452.99
Return over direct exp per acre	68.60	-88.92	71.18	190.43
Overhead Expenses				
Hired labor	19.32	19.33	25.84	12.34
Machinery leases	3.59	12.44	1.22	2.78
Building leases	0.66	0.94	0.05	0.96
Farm insurance	7.84	7.47	7.88	6.57
Utilities	3.83	4.15	4.50	3.52
Dues & professional fees	3.76	3.96	2.70	3.92
Interest	3.06	2.59	2.60	3.45
Mach & bldg depreciation	27.33	28.84	29.95	22.37
Miscellaneous	2.80	3.62	2.55	2.06
Total overhead expenses per acre	72.19	83.34	77.29	57.97
Total dir & ovhd expenses per acre	536.55	566.21	532.31	510.96
Net return per acre	-3.59	-172.27	-6.11	132.46
Government payments	-	-	-	-
Net return with govt pmts	-3.59	-172.27	-6.11	132.46
Labor & management charge	33.17	29.65	30.53	31.76
Net return over lbr & mgt	-36.76	-201.92	-36.63	100.70
Cost of Production				
Total direct expense per bu.	6.53	9.08	6.45	5.46
Total dir & ovhd exp per bu.	7.54	10.64	7.54	6.16
Less govt & other income	7.35	10.36	7.24	5.97
With labor & management	7.82	10.92	7.67	6.36
Net value per unit	7.34	7.16	7.25	7.60
Machinery cost per acre	98.25	111.46	94.36	87.01
Est. labor hours per acre	1.41	1.64	1.24	1.32

Crop Enterprise Analysis
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2023
(Farms Sorted By Return to Overhead)

Wheat, Spring on Share Rent

	<u>Avg. Of All Farms</u>
Number of farms	8
Acres	251.34
Yield per acre (bu.)	70.91
Operators share of yield %	67.24
Value per bu.	7.07
Total product return per acre	337.28
Other crop income per acre	4.14
Gross return per acre	341.42
Direct Expenses	
Seed and plants	34.44
Fertilizer	156.05
Crop chemicals	36.66
Crop insurance	15.49
Storage	0.59
Fuel & oil	20.74
Repairs	38.52
Custom hire	1.52
Hired labor	3.19
Operating interest	6.66
Miscellaneous	3.49
Total direct expenses per acre	317.34
Return over direct exp per acre	24.08
Overhead Expenses	
Hired labor	10.06
Machinery leases	14.45
Building leases	1.32
Farm insurance	7.36
Utilities	2.62
Dues & professional fees	4.18
Interest	2.27
Mach & bldg depreciation	18.50
Miscellaneous	2.89
Total overhead expenses per acre	63.64
Total dir & ovhd expenses per acre	380.98
Net return per acre	-39.56
Government payments	-
Net return with govt pmts	-39.56
Labor & management charge	33.50
Net return over lbr & mgt	-73.06
Cost of Production	
Total direct expense per bu.	6.66
Total dir & ovhd exp per bu.	7.99
Less govt & other income	7.90
With labor & management	8.61
Net value per unit	7.07
Machinery cost per acre	94.63
Est. labor hours per acre	2.03

Farm Financial Scorecard

Using Recommended Measures from the Farm Financial Standards Council (FFSC)

Year: 20__

Your Farm:

Desired Trend

Liquidity

Current Ratio

Vulnerable 1.3 2.0 Strong



↑

Working Capital as % of

_____ %

10% 30%



↑

Working Capital as % of
Operating Expense*

_____ %

20% 40%



↑

Solvency

Debt-to-Asset Ratio

_____ %

Vulnerable 60% 30% Strong



↓

Equity-to-Asset Ratio*

_____ %

40% 70%



↑

Debt-to-Equity Ratio*

1.5 0.43



↓

Profitability

Rate of Return on Assets

_____ %

Vulnerable 4% 8% Strong



↑

Rate of Return on Equity

_____ %

3% 10%



↑

Operating Profit Margin Ratio

_____ %

15% 25%



↑

Asset Turnover Ratio

_____ %

30% 45%



↑

Repayment Capacity

Debt Coverage Ratio

Vulnerable 1.25 1.75 Strong



↑

Replacement Coverage Ratio

1.1 1.5



↑

Term Debt & Finance Lease
Coverage Ratio*

1.25 1.75



↑

Financial Efficiency

Operating Expense Ratio

_____ %

Vulnerable 80% 60% Strong



↓

Depreciation Expense Ratio

_____ %

10% 5%



↓

Interest Expense Ratio

_____ %

10% 5%



↓

Net Farm Income Ratio

_____ %

10% 20%



↑

* Denotes Acceptable Alternate Measures of the FFSC (<https://ffsc.org/>)