

Minnesota and North Dakota
Farm Business Management Education

Red River Valley 2020 Report



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Minnesota Farm Business Management Education
and
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RED RIVER VALLEY AVERAGES
2020 ANNUAL REPORT

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2020 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 2020 Red River Valley Report is based upon data generated by individual farm analysis completed by farm/ranch families enrolled in the Farm and Ranch Business Management Education programs in Minnesota and North Dakota. The tables in this report were created using FINPACK and RankEm Central copyrighted software of the Center for Farm Financial Management, University of Minnesota.

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

EXPLANATORY NOTES FOR THE FARM OPERATORS' REPORTS

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

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

Farm Income Statement

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

The first section of the 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, CSP, and Market Facilitation Payments (MFP).

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 \$25,000 per full time operator plus 5% of value of farm production is used.

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

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

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

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

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

Liquidity & Repayment Capacity Measures

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

Balance Sheets

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

Statement of Cash Flows

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

Financial Standards Measures

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

Liquidity

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

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

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

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

Solvency

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

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

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

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

Profitability

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

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

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

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

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

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

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

Repayment Capacity

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

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

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

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

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

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

Efficiency

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

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

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

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

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

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

Crop Production and Marketing Summary

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

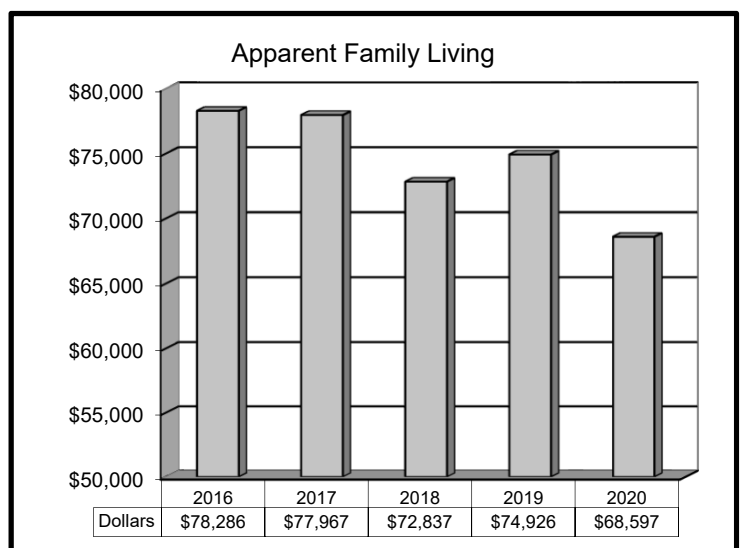
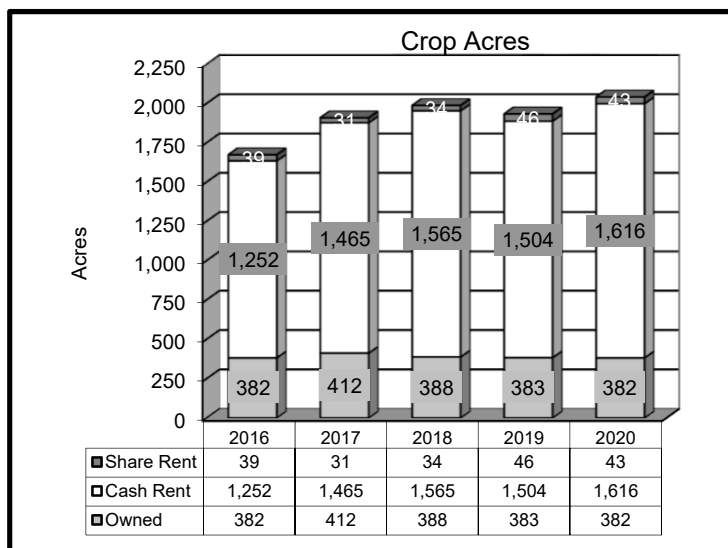
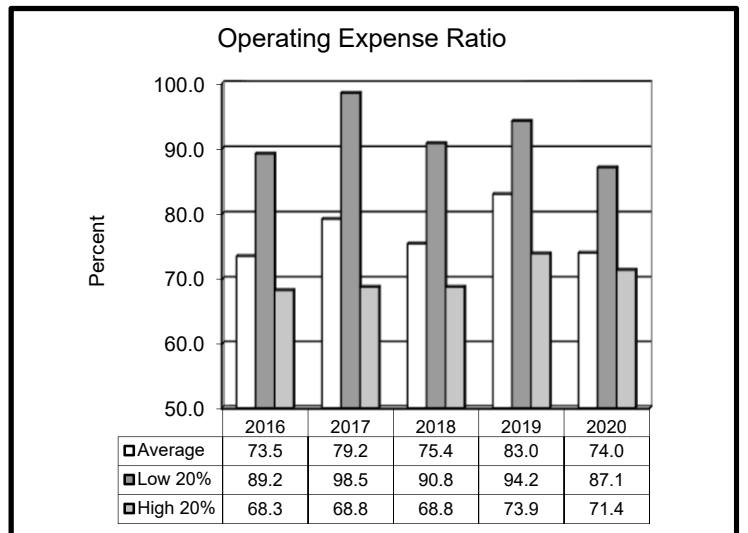
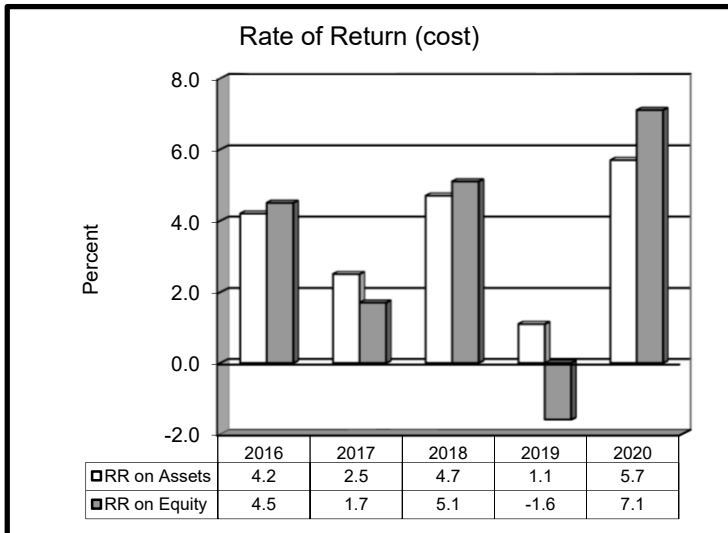
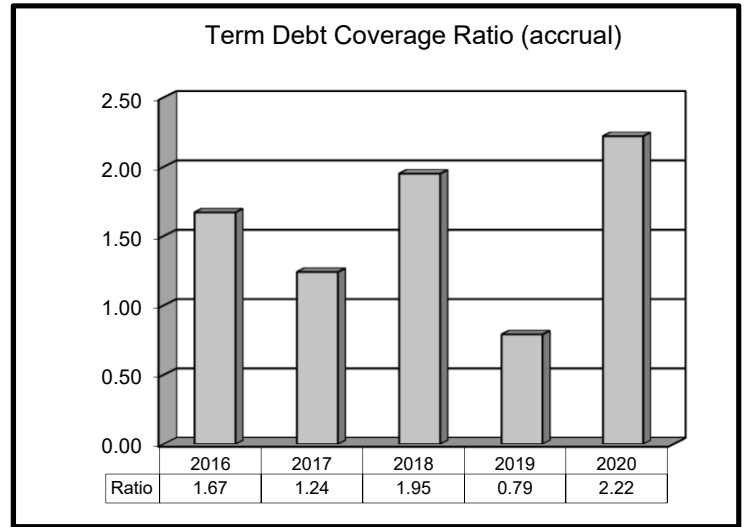
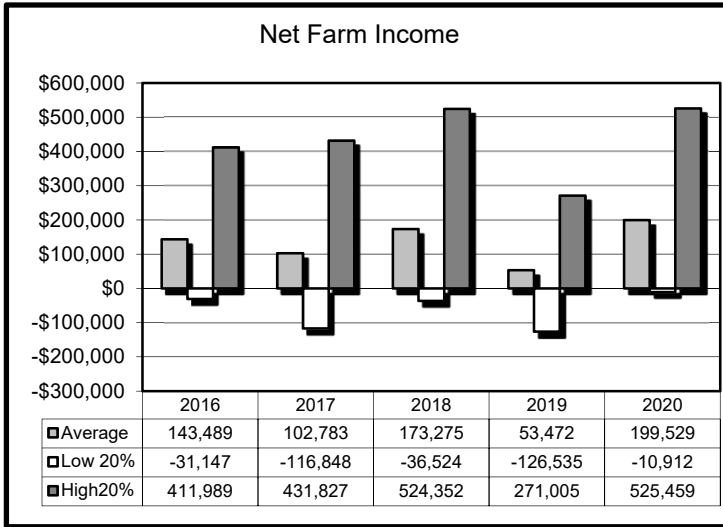
Operator and Labor Information

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

Nonfarm Summary

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

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



Farm Income Statement
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2020
(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	216	43	43	44
Cash Farm Income				
Barley	2,532	268	4,624	3,817
Beans, Black Turtle	4,839	4,165	7,648	2,132
Beans, Dark Red Kidney	1,054	5,292	-	-
Beans, Great Northern	1,094	2,436	-	-
Beans, Navy	1,573	850	982	1,507
Beans, Pink	1,863	-	-	9,148
Beans, Pinto	5,058	10,617	786	13,680
Corn	269,035	163,045	183,473	551,703
Corn Silage	1,384	-	857	-
Grass Seed, Fescue	421	-	2,112	-
Hay, Alfalfa	1,416	4,349	735	949
Hay, Mixed	3,559	559	-	5,973
Oats	81	-	240	161
Peas, Field	1,320	110	34	6,339
Potatoes	18,967	-	-	83,607
Rye	101	509	-	-
Soybeans	275,646	217,125	196,123	515,796
Soybeans Seed	21,776	2,203	17,374	52,234
Sugar Beets	158,894	103,921	70,606	421,730
Sunflowers	3,863	6,750	4,648	-
Sunflowers, Confectionary	95	-	478	-
Wheat, Durum	344	-	-	-
Wheat, Hard Red Spring	110	85	467	-
Wheat, Spring	99,228	81,152	58,031	211,486
Wheat, Hard White	215	-	-	1,057
Soybeans, Natto	297	1,492	-	-
Peas, Organic	82	411	-	-
Hemp, Seed	137	-	686	-
User Added Crop	1,030	1,464	-	-
Miscellaneous crop income	8,084	2,555	5,420	30,825
Beef Cow-Calf, Beef Calves	3,120	411	4,348	345
Beef Replacement Heifers	293	-	-	-
Beef Backgrounding	1,519	491	7,138	-
Beef Finishing	1,851	-	2,428	4,526
Hogs, Weaning to Finish	4,169	-	-	-
Cull breeding livestock	76	-	380	-
Misc. livestock income	26	-	131	-
Crop government payments	33,368	25,587	21,562	67,249
CRP payments	1,093	119	1,145	1,239
Other government payments	114,176	80,707	86,014	198,690
Conservation govt payment	4,310	3,235	4,869	7,034
Custom work income	14,955	11,614	20,088	13,453
Patronage dividends, cash	12,666	9,269	8,211	24,950
Crop insurance income	97,847	67,894	101,622	159,362
Property insurance income	237	-	308	682
Sale of resale items	288	1,116	-	-
Farm rental income	5,849	5,029	2,278	6,664
Other farm income	40,348	31,202	18,088	87,193
Gross Cash Farm Income	1,220,291	846,032	833,936	2,483,529

Farm Income Statement (continued)
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2020
(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	216	43	43	44
Cash Farm Expense				
Seed and plants	150,952	99,456	92,099	321,292
Fertilizer	128,908	92,299	91,358	258,163
Crop chemicals	90,929	61,619	57,856	192,978
Crop insurance	33,714	29,048	25,980	61,260
Drying expense	5,151	4,544	3,226	10,830
Storage	1,637	174	615	5,384
Irrigation energy	410	-	-	1,794
Packaging and supplies	56	90	190	-
Crop miscellaneous	9,114	6,123	3,604	25,793
Consultants	4,508	3,003	3,780	10,024
Feeder livestock purchase	3,889	-	4,913	2,230
Purchased feed	1,708	240	1,704	195
Breeding fees	90	-	228	108
Veterinary	460	94	616	74
Supplies	227	17	200	41
Livestock leases	677	-	-	-
Interest	57,139	51,216	36,908	120,723
Fuel & oil	39,431	30,660	27,813	72,156
Repairs	89,600	68,807	64,867	172,605
Custom hire	18,186	11,268	13,768	33,660
Hired labor	58,953	29,915	29,756	140,733
Land rent	211,559	155,010	143,135	438,247
Stock/quota lease	13,332	17,984	5,074	26,274
Machinery leases	15,655	14,098	13,498	27,584
Building leases	2,703	1,165	992	6,699
Real estate taxes	10,907	7,603	6,324	22,987
Farm insurance	16,349	12,924	12,604	28,575
Utilities	11,998	10,254	9,182	19,482
Hauling and trucking	4,012	4,971	2,629	9,919
Marketing	1,920	623	1,916	2,819
Dues & professional fees	9,409	8,927	5,051	14,496
Purchase of resale items	9,466	7,317	4,065	18,505
Miscellaneous	10,043	7,309	10,571	16,165
Total cash expense	1,013,091	736,759	674,525	2,061,797
Net cash farm income	207,199	109,273	159,411	421,733
Inventory Changes				
Prepays and supplies	32,921	13,737	7,258	96,949
Accounts receivable	-34,466	-45,210	-28,055	-83,716
Hedging accounts	-4,276	-17,540	407	12,438
Other current assets	-4,624	19,604	306	-42,352
Crops and feed	43,493	-48,199	22,407	192,550
Market livestock	-1,684	250	-2,356	-891
Breeding livestock	175	-631	1,415	-
Other assets	6,244	930	922	10,447
Accounts payable	18,956	14,303	27,124	19,051
Accrued interest	2,672	-697	-50	13,240
Total inventory change	59,412	-63,452	29,378	217,715
Net operating profit	266,611	45,821	188,788	639,448
Depreciation				
Machinery and equipment	-56,468	-46,753	-38,171	-99,780
Titled vehicles	-5,823	-4,257	-4,792	-10,604
Buildings and improvements	-6,785	-5,537	-4,619	-14,421
Total depreciation	-69,076	-56,546	-47,582	-124,805
Net farm income from operations	197,535	-10,725	141,207	514,643
Gain or loss on capital sales	1,994	-187	3,140	10,816
Net farm income	199,529	-10,912	144,346	525,459

Inventory Changes
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2020
(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	216	43	43	44
Net cash farm income	207,199	109,273	159,411	421,733
Crops and Feed				
Ending inventory	602,206	346,942	387,554	1,325,519
Beginning inventory	558,713	395,141	365,147	1,132,969
Inventory change	43,493	-48,199	22,407	192,550
Market Livestock				
Ending inventory	7,835	1,062	13,635	2,986
Beginning inventory	9,519	812	15,991	3,877
Inventory change	-1,684	250	-2,356	-891
Accts Receivable				
Ending inventory	99,531	58,846	66,876	150,387
Beginning inventory	133,997	104,056	94,932	234,103
Inventory change	-34,466	-45,210	-28,055	-83,716
Prepaid Expenses and Supplies				
Ending inventory	101,031	62,138	46,330	238,071
Beginning inventory	68,110	48,401	39,072	141,122
Inventory change	32,921	13,737	7,258	96,949
Hedging Activities				
Ending inventory	12,671	4,506	3,932	49,130
Withdrawals	5,857	8,385	1,340	18,213
Beginning inventory	7,626	10,352	2,327	18,265
Deposits	15,178	20,078	2,537	36,640
Gain or loss	-4,276	-17,540	407	12,438
Other Current Assets				
Ending inventory	23,098	103,991	741	7,170
Beginning inventory	27,722	84,386	435	49,522
Inventory change	-4,624	19,604	306	-42,352
Breeding Livestock				
Ending inventory	7,232	1,374	12,744	-
Capital sales	345	-	-	-
Beginning inventory	6,578	1,431	10,585	-
Capital purchases	823	574	744	-
Depreciation, capital adjust	175	-631	1,415	-
Other Capital Assets				
Ending inventory	331,399	266,928	167,205	697,032
Capital sales	5,244	4,630	2,205	3,589
Beginning inventory	322,864	266,484	161,863	679,499
Capital purchases	7,535	4,144	6,624	10,676
Depreciation, capital adjust	6,244	930	922	10,447
Accounts Payable				
Beginning inventory	60,752	46,111	64,941	99,172
Ending inventory	41,796	31,807	37,817	80,122
Inventory change	18,956	14,303	27,124	19,051
Accrued Interest				
Beginning inventory	27,988	24,247	19,064	57,094
Ending inventory	25,316	24,945	19,114	43,854
Inventory change	2,672	-697	-50	13,240
Total inventory change	59,412	-63,452	29,378	217,715
Net operating profit	266,611	45,821	188,788	639,448

Depreciation
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2020
(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	216	43	43	44
Net operating profit	266,611	45,821	188,788	639,448
Machinery and Equipment				
Ending inventory	658,666	557,159	414,173	1,204,624
Capital sales	19,071	21,377	9,070	24,590
Beginning inventory	635,300	547,537	400,781	1,146,659
Capital purchases	98,906	77,752	60,634	182,335
Depreciation, capital adjust.	-56,468	-46,753	-38,171	-99,780
Titled Vehicles				
Ending inventory	53,267	42,496	47,330	99,679
Capital sales	1,787	651	588	5,882
Beginning inventory	49,113	41,599	43,686	88,935
Capital purchases	11,764	5,805	9,024	27,230
Depreciation, capital adjust.	-5,823	-4,257	-4,792	-10,604
Buildings and Improvements				
Ending inventory	282,913	215,378	160,879	590,254
Capital sales	3,930	-	9,173	1,946
Beginning inventory	263,929	216,908	168,227	534,771
Capital purchases	29,699	4,007	6,444	71,850
Depreciation, capital adjust.	-6,785	-5,537	-4,619	-14,421
Total depreciation, capital adj.	-69,076	-56,546	-47,582	-124,805
Net farm income from operations	197,535	-10,725	141,207	514,643
Gain or loss on capital sales	1,994	-187	3,140	10,816
Net farm income	199,529	-10,912	144,346	525,459

Profitability Measures
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2020
(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	216	43	43	44
Profitability (assets valued at cost)				
Net farm income from operations	197,535	-10,725	141,207	514,643
Rate of return on assets	5.7 %	-1.1 %	6.4 %	8.0 %
Rate of return on equity	7.1 %	-7.8 %	8.7 %	11.0 %
Operating profit margin	14.2 %	-3.5 %	15.0 %	18.9 %
Asset turnover rate	39.7 %	32.6 %	42.9 %	42.6 %
Farm interest expense	54,467	51,913	36,958	107,483
Value of operator lbr and mgmt. Return on farm assets	78,511 173,491	67,437 -26,249	55,793 122,371	132,961 489,165
Average farm assets	3,070,411	2,293,543	1,905,295	6,087,043
Return on farm equity	119,024	-78,162	85,413	381,682
Average farm equity	1,670,184	1,007,103	978,032	3,470,573
Value of farm production	1,218,812	747,988	818,311	2,593,576

Liquidity & Repayment Capacity Measures
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2020
(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	216	43	43	44
Liquidity				
Current ratio	1.63	1.10	1.61	1.85
Working capital	366,174	57,926	217,855	918,363
Working capital to gross inc	29.7 %	7.7 %	26.3 %	35.1 %
Current assets	943,631	639,095	574,645	2,001,537
Current liabilities	577,457	581,169	356,789	1,083,175
Gross revenues (accrual)	1,233,874	755,544	828,994	2,614,507
Repayment capacity				
Net farm income from operations	197,535	-10,725	141,207	514,643
Depreciation	69,076	56,546	47,582	124,805
Personal income	31,402	35,680	27,148	28,731
Family living/owner withdrawals	-68,597	-66,828	-60,912	-89,875
Cash discrepancy	-145	-78	-457	34
Payments on personal debt	-5,864	-5,732	-4,051	-8,024
Income taxes paid	-15,383	-9,770	-10,865	-28,352
Interest on term debt	34,877	29,400	23,775	70,232
Capital debt repayment capacity	242,901	28,494	163,427	612,193
Scheduled term debt payments	-109,634	-95,883	-77,308	-200,317
Capital debt repayment margin	133,267	-67,389	86,119	411,877
Cash replacement allowance	-47,992	-38,121	-32,288	-90,861
Replacement margin	85,275	-105,510	53,832	321,016
Term debt coverage ratio	2.22	0.30	2.11	3.06
Replacement coverage ratio	1.54	0.21	1.49	2.10

Balance Sheet at Cost Values
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2020
(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	216	43	43	44
Assets				
Current Farm Assets				
Cash and checking balance	97,259	61,612	55,576	228,275
Prepaid expenses & supplies	101,031	62,138	46,330	238,071
Growing crops	310	173	84	1,273
Accounts receivable	99,531	58,846	66,876	150,387
Hedging accounts	12,671	4,506	3,932	49,130
Crops held for sale or feed	602,206	346,942	387,554	1,325,519
Crops under government loan	-	-	-	-
Market livestock held for sale	7,835	1,062	13,635	2,986
Other current assets	22,788	103,817	657	5,897
Total current farm assets	943,631	639,095	574,645	2,001,537
Intermediate Farm Assets				
Breeding livestock	7,232	1,374	12,744	-
Machinery and equipment	658,666	557,159	414,173	1,204,624
Titled vehicles	53,267	42,496	47,330	99,679
Other intermediate assets	235,919	140,252	126,356	556,834
Total intermediate farm assets	955,084	741,282	600,603	1,861,137
Long Term Farm Assets				
Farm land	878,876	552,404	571,313	1,714,129
Buildings and improvements	282,913	215,378	160,879	590,254
Other long-term assets	95,480	126,676	40,850	140,199
Total long-term farm assets	1,257,269	894,458	773,042	2,444,581
Total Farm Assets	3,155,984	2,274,836	1,948,290	6,307,255
Total Nonfarm Assets	376,936	213,476	327,851	560,147
Total Assets	3,532,920	2,488,312	2,276,141	6,867,402
Liabilities				
Current Farm Liabilities				
Accrued interest	25,316	24,945	19,114	43,854
Accounts payable	41,796	31,807	37,817	80,122
Current notes	433,989	457,397	247,008	826,431
Government crop loans	-	-	-	-
Principal due on term debt	76,355	67,021	52,850	132,768
Total current farm liabilities	577,457	581,169	356,789	1,083,175
Total intermediate farm liabs	192,112	208,304	124,037	317,551
Total long term farm liabilities	648,567	508,415	446,336	1,230,618
Total farm liabilities	1,418,136	1,297,888	927,162	2,631,343
Total nonfarm liabilities	88,828	73,055	85,347	114,349
Total liabilities	1,506,964	1,370,943	1,012,509	2,745,692
Net worth (farm and nonfarm)	2,025,956	1,117,369	1,263,632	4,121,711
Net worth change	160,042	-58,261	115,342	438,649
Percent net worth change	9 %	-5 %	10 %	12 %
Ratio Analysis				
Current farm liabilities / assets	61 %	91 %	62 %	54 %
Intermediate farm liab. / assets	20 %	28 %	21 %	17 %
Long term farm liab. / assets	52 %	57 %	58 %	50 %
Total debt to asset ratio	43 %	55 %	44 %	40 %

Balance Sheet at Market Values
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2020
(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	216	43	43	44
Assets				
Current Farm Assets				
Cash and checking balance	97,259	61,612	55,576	228,275
Prepaid expenses & supplies	101,031	62,138	46,330	238,071
Growing crops	310	173	84	1,273
Accounts receivable	99,531	58,846	66,876	150,387
Hedding accounts	12,671	4,506	3,932	49,130
Crops held for sale or feed	602,206	346,942	387,554	1,325,519
Crops under government loan	-	-	-	-
Market livestock held for sale	7,835	1,062	13,635	2,986
Other current assets	22,788	103,817	657	5,897
Total current farm assets	943,631	639,095	574,645	2,001,537
Intermediate Farm Assets				
Breeding livestock	7,982	1,374	15,205	-
Machinery and equipment	868,247	747,526	539,119	1,560,641
Titled vehicles	66,289	55,524	60,912	120,479
Other intermediate assets	318,135	262,944	148,911	698,462
Total intermediate farm assets	1,260,653	1,067,368	764,147	2,379,582
Long Term Farm Assets				
Farm land	1,400,396	951,712	985,946	2,484,063
Buildings and improvements	326,787	261,808	174,883	661,940
Other long-term assets	112,616	129,902	46,861	180,235
Total long-term farm assets	1,839,799	1,343,422	1,207,690	3,326,239
Total Farm Assets	4,044,082	3,049,886	2,546,482	7,707,358
Total Nonfarm Assets	496,687	295,811	383,928	745,779
Total Assets	4,540,770	3,345,696	2,930,410	8,453,136
Liabilities				
Current Farm Liabilities				
Accrued interest	25,316	24,945	19,114	43,854
Accounts payable	41,796	31,807	37,817	80,122
Current notes	433,989	457,397	247,008	826,431
Government crop loans	-	-	-	-
Principal due on term debt	76,355	67,021	52,850	132,768
Total current farm liabilities	577,457	581,169	356,789	1,083,175
Total intermediate farm liabs	192,112	208,304	124,037	317,551
Total long term farm liabilities	648,567	508,415	446,336	1,230,618
Total farm liabilities	1,418,136	1,297,888	927,162	2,631,343
Total nonfarm liabilities	88,828	73,055	85,347	114,349
Total liabs excluding deferreds	1,506,964	1,370,943	1,012,509	2,745,692
Total deferred liabilities	349,109	287,261	195,610	801,798
Total liabilities	1,856,073	1,658,204	1,208,119	3,547,490
Retained earnings	2,025,956	1,117,369	1,263,632	4,121,711
Market valuation equity	658,741	570,124	458,659	783,936
Net worth (farm and nonfarm)	2,684,697	1,687,492	1,722,291	4,905,647
Net worth excluding deferreds	3,033,806	1,974,753	1,917,901	5,707,445
Net worth change	208,704	-9,263	172,397	382,639
Percent net worth change	8 %	-1 %	11 %	8 %
Ratio Analysis				
Current farm liabilities / assets	61 %	91 %	62 %	54 %
Intermediate farm liab. / assets	15 %	20 %	16 %	13 %
Long term farm liab. / assets	35 %	38 %	37 %	37 %
Total debt to asset ratio	41 %	50 %	41 %	42 %
Debt to assets excl deferreds	33 %	41 %	35 %	32 %

Statement Of Cash Flows
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2020
(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	216	43	43	44
Beginning cash (farm & nonfarm)	87,184	75,894	61,594	158,237
Cash Provided By Operating Activities				
Gross cash farm income	1,220,291	846,032	833,936	2,483,529
Total cash farm expense	-1,013,091	-736,759	-674,525	-2,061,797
Net cash from hedging transactions	-9,321	-11,694	-1,198	-18,427
Cash provided by operating	197,879	97,580	158,213	403,306
Cash Provided By Investing Activities				
Sale of breeding livestock	345	-	-	-
Sale of machinery & equipment	19,673	21,235	8,807	28,668
Sale of titled vehicles	1,683	651	595	5,336
Sale of farm land	25,407	16,327	14,212	94,882
Sale of farm buildings	3,956	-	9,173	1,946
Sale of other farm assets	4,564	4,630	2,205	3,589
Sale of nonfarm assets	9,281	1,527	5,313	7,547
Purchase of breeding livestock	-823	-574	-744	-
Purchase of machinery & equip.	-98,906	-77,752	-60,634	-182,335
Purchase of titled vehicles	-11,764	-5,805	-9,024	-27,230
Purchase of farm land	-72,524	-41,421	-67,616	-117,281
Purchase of farm buildings	-29,699	-4,007	-6,444	-71,850
Purchase of other farm assets	-7,535	-4,144	-6,624	-10,676
Purchase of nonfarm assets	-18,681	-11,379	-26,347	-12,047
Cash provided by investing	-175,022	-100,712	-137,127	-279,450
Cash Provided By Financing Activities				
Money borrowed	824,233	679,047	395,467	1,800,722
Principal payments	-769,569	-640,513	-361,122	-1,758,068
Personal income	31,402	35,680	27,148	28,731
Family living/owner withdrawals	-68,597	-66,828	-60,912	-89,875
Income and social security tax	-15,616	-8,987	-14,121	-29,411
Capital contributions	446	-	-	-
Capital distributions	-463	-	-	-
Dividends paid	-	-	-	-
Cash gifts and inheritances	1,362	594	3,166	2,367
Gifts given	-1,045	-1,505	-342	-2,687
Other cash flows	-	-	-	-
Cash provided by financing	2,153	-2,512	-10,717	-48,221
Net change in cash balance	25,009	-5,645	10,369	75,634
Ending cash (farm & nonfarm)	112,048	70,171	71,506	233,906
Discrepancy	145	78	457	-34

Financial Standards Measures
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2020
(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	216	43	43	44
Liquidity				
Current ratio	1.63	1.10	1.61	1.85
Working capital	366,174	57,926	217,855	918,363
Working capital to gross inc	29.7 %	7.7 %	26.3 %	35.1 %
Solvency (market)				
Farm debt to asset ratio	43 %	52 %	44 %	44 %
Farm equity to asset ratio	57 %	48 %	56 %	56 %
Farm debt to equity ratio	0.76	1.06	0.78	0.79
Profitability (cost)				
Rate of return on farm assets	5.7 %	-1.1 %	6.4 %	8.0 %
Rate of return on farm equity	7.1 %	-7.8 %	8.7 %	11.0 %
Operating profit margin	14.2 %	-3.5 %	15.0 %	18.9 %
Net farm income	199,529	-10,912	144,346	525,459
EBITDA	321,078	97,734	225,746	746,931
Repayment Capacity				
Capital debt repayment capacity	242,901	28,494	163,427	612,193
Capital debt repayment margin	133,267	-67,389	86,119	411,877
Replacement margin	85,275	-105,510	53,832	321,016
Term debt coverage ratio	2.22	0.30	2.11	3.06
Replacement coverage ratio	1.54	0.21	1.49	2.10
Efficiency				
Asset turnover rate (cost)	39.7 %	32.6 %	42.9 %	42.6 %
Operating expense ratio	74.0 %	87.1 %	72.8 %	71.4 %
Depreciation expense ratio	5.6 %	7.5 %	5.7 %	4.8 %
Interest expense ratio	4.4 %	6.9 %	4.5 %	4.1 %
Net farm income ratio	16.0 %	-1.4 %	17.0 %	19.7 %

Crop Production and Marketing Summary
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2020
(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	216	43	43	44
Acreage Summary				
Total acres owned	408	294	288	733
Total crop acres	2,041	1,431	1,443	3,712
Crop acres owned	382	259	223	675
Crop acres cash rented	1,616	1,157	1,157	2,983
Crop acres share rented	43	16	63	54
Total pasture acres	11	6	43	-
Percent crop acres owned	19 %	18 %	15 %	18 %
Mach invest/crop acre cost	336	389	314	342
Mach invest/crop acre market	440	521	402	442
Average Price Received (Cash Sales Only)				
Soybeans per bushel	8.78	8.92	8.90	8.89
Wheat, Spring per bushel	4.95	4.90	4.82	4.87
Corn per bushel	3.12	3.15	3.31	3.12
Soybeans Seed per bushel	9.56	-	-	9.93
Sunflowers per cwt	18.97	-	-	-
Soybeans, Food per bushel	12.79	-	-	-
Hay, Alfalfa per ton	125.69	-	-	-
Barley per bushel	4.44	-	-	-
Beans, Navy per cwt	27.27	-	-	-
Beans, Black Turtle per cwt	29.13	-	-	-
Average Yield Per Acre				
Soybeans (bushel)	38.14	33.94	37.49	40.69
Corn (bushel)	170.44	163.03	167.80	170.53
Wheat, Spring (bushel)	60.98	56.37	57.22	63.47
Sugar Beets (ton)	25.59	25.17	26.12	25.13
Soybeans Seed (bushel)	39.06	45.67	37.21	38.86
Soybeans, Food (bushel)	41.01	41.34	-	46.64
Sunflowers (cwt)	19.04	17.98	-	-
Barley (bushel)	68.75	-	-	-
Beans, Pinto (cwt)	21.36	-	-	22.43
Hay, Alfalfa (ton)	4.11	-	-	-
Beans, Navy (cwt)	17.34	-	-	-
Beans, Black Turtle (cwt)	19.21	-	-	-
Canola (cwt)	19.50	-	-	-
Corn Silage (ton)	18.68	-	-	-

Operator and Labor Information
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2020
(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	216	43	43	44
Operator Information				
Average number of operators	1.1	1.0	1.1	1.3
Average age of operators	47.2	45.6	46.2	49.6
Average number of years farming	23.8	23.2	22.4	26.8
Results Per Operator				
Working capital	333,166	59,305	207,252	684,881
Total assets (market)	4,131,450	3,425,356	2,787,779	6,304,034
Total liabilities	1,688,761	1,697,685	1,149,317	2,645,585
Net worth (market)	2,442,689	1,727,671	1,638,462	3,658,448
Net worth excl deferred liabs	2,760,329	2,021,771	1,824,552	4,256,399
Gross farm income	1,122,649	773,534	788,645	1,949,801
Total farm expense	942,920	784,514	654,311	1,566,000
Net farm income from operations	179,729	-10,981	134,334	383,802
Net nonfarm income	28,572	36,530	25,827	21,426
Family living & tax withdrawals	76,542	78,501	68,718	88,144
Total acres owned	371.6	300.7	274.1	546.9
Total crop acres	1,857.2	1,465.1	1,373.0	2,768.5
Crop acres owned	347.6	264.8	212.4	503.5
Crop acres cash rented	1,470.7	1,184.3	1,100.3	2,224.8
Crop acres share rented	38.9	16.0	60.3	40.3
Total pasture acres	9.6	6.0	41.0	-
Labor Analysis				
Number of farms	216	43	43	44
Total unpaid labor hours	2,002	1,767	1,855	2,749
Total hired labor hours	2,123	1,295	1,042	5,331
Total labor hours per farm	4,125	3,063	2,897	8,080
Unpaid hours per operator	1,822	1,810	1,764	2,050

Household and Personal Expenses
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2020
(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	39	6	11	6
Average family size	3.0	2.0	3.0	2.7
Family Living Expenses				
Food and meals expense	9,653	7,389	8,713	10,917
Medical care	4,551	2,274	4,293	4,201
Health insurance	5,744	2,972	5,452	13,089
Cash donations	1,594	443	2,351	2,270
Household supplies	3,419	2,931	2,667	3,949
Clothing	1,969	2,002	1,163	2,517
Personal care	3,334	368	1,475	7,829
Child / Dependent care	428	221	835	-
Alimony and child support	129	-	-	-
Gifts	1,831	211	1,396	1,933
Education	1,847	576	2,812	2,084
Recreation	4,606	2,733	3,046	9,241
Utilities (household share)	3,605	3,694	3,553	3,524
Personal vehicle operating exp	3,455	2,937	3,511	4,124
Household real estate taxes	1,038	802	1,025	2,152
Dwelling rent	289	1,882	-	-
Household repairs	3,413	1,059	2,545	8,319
Personal interest	3,568	2,440	3,705	5,052
Disability / Long term care ins	157	-	245	569
Life insurance payments	4,353	2,350	6,769	4,344
Personal property insurance	487	774	507	734
Miscellaneous	6,486	7,014	9,739	1,896
Total cash family living expense	65,955	45,070	65,803	88,744
Family living from the farm	-	-	-	-
Total family living	65,955	45,070	65,803	88,744
Other Nonfarm Expenditures				
Income taxes	17,509	3,698	34,071	31,078
Furnishing & appliance purchases	-	-	-	-
Nonfarm vehicle purchases	7,200	2,917	8,473	9,480
Nonfarm real estate purchases	-5,444	-	2,309	-
Other nonfarm capital purchases	-3,225	-	-2,934	-
Nonfarm savings & investments	6,497	-3,262	12,241	11,389
Total other nonfarm expenditures	22,538	3,354	54,160	51,946
Total cash family living investment & nonfarm capital purch	88,493	48,424	119,963	140,690

Financial Summary
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2020
(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	216	13	32	74	61	33
Income Statement						
Gross cash farm income	1,220,291	186,221	373,191	730,771	1,410,339	3,299,679
Total cash farm expense	1,013,091	166,127	282,486	582,720	1,159,344	2,834,146
Net cash farm income	207,199	20,094	90,705	148,051	250,994	465,533
Inventory change	59,412	46,754	28,213	45,815	32,855	174,208
Depreciation	-69,076	-5,824	-22,300	-45,551	-85,751	-167,338
Net farm income from operations	197,535	61,025	96,618	148,315	198,098	472,403
Gain or loss on capital sales	1,994	100	4,482	-1,714	-25	12,555
Average net farm income	199,529	61,125	101,100	146,602	198,073	484,959
Median net farm income	145,314	51,254	94,643	115,483	180,681	477,645
Profitability (cost)						
Rate of return on assets	5.7 %	9.0 %	7.4 %	6.4 %	4.8 %	5.7 %
Rate of return on equity	7.1 %	19.4 %	9.9 %	8.3 %	5.6 %	7.1 %
Operating profit margin	14.2 %	21.2 %	19.4 %	16.3 %	12.6 %	13.7 %
Asset turnover rate	39.7 %	42.4 %	38.1 %	39.0 %	38.1 %	41.5 %
Profitability (market)						
Rate of return on assets	5.2 %	6.3 %	5.8 %	6.1 %	5.3 %	4.4 %
Rate of return on equity	6.8 %	11.8 %	7.6 %	8.1 %	6.9 %	5.5 %
Operating profit margin	16.7 %	18.3 %	21.1 %	21.1 %	17.5 %	13.4 %
Asset turnover rate	31.0 %	34.3 %	27.6 %	29.0 %	30.4 %	33.0 %
Liquidity & Repayment (end of year)						
Current assets	943,631	164,453	321,004	623,589	1,011,453	2,524,308
Current liabilities	577,457	106,797	152,724	339,114	643,792	1,636,451
Current ratio	1.63	1.54	2.10	1.84	1.57	1.54
Working capital	366,174	57,656	168,279	284,475	367,661	887,857
Change in working capital	123,375	33,459	57,156	81,102	117,454	337,533
Working capital to gross inc	29.7 %	28.3 %	42.8 %	38.0 %	26.5 %	26.5 %
Term debt coverage ratio	2.22	2.44	2.96	2.52	1.92	2.20
Replacement coverage ratio	1.54	1.93	1.71	1.70	1.38	1.54
Term debt to EBITDA	2.33	2.21	1.97	1.84	2.62	2.48
Solvency (end of year at cost)						
Number of farms	216	13	32	74	61	33
Total assets	3,532,920	655,625	1,503,464	2,250,227	4,036,935	8,854,769
Total liabilities	1,506,964	405,430	525,984	893,062	1,732,949	3,959,278
Net worth	2,025,956	250,194	977,480	1,357,165	2,303,986	4,895,491
Net worth change	160,042	44,903	138,678	114,323	145,928	362,925
Farm debt to asset ratio	45 %	61 %	41 %	42 %	45 %	47 %
Total debt to asset ratio	43 %	62 %	35 %	40 %	43 %	45 %
Change in earned net worth %	9 %	22 %	17 %	9 %	7 %	8 %
Solvency (end of year at market)						
Number of farms	216	13	32	74	61	33
Total assets	4,540,770	802,534	2,085,524	3,054,895	5,071,027	11,113,119
Total liabilities	1,856,073	453,162	653,172	1,116,781	2,040,430	5,030,807
Net worth	2,684,697	349,372	1,432,351	1,938,114	3,030,597	6,082,312
Total net worth change	208,704	41,883	156,395	158,714	252,498	370,148
Farm debt to asset ratio	43 %	58 %	38 %	39 %	42 %	47 %
Total debt to asset ratio	41 %	56 %	31 %	37 %	40 %	45 %
Change in total net worth %	8 %	14 %	12 %	9 %	9 %	6 %
Nonfarm Information						
Net nonfarm income	31,402	26,453	26,601	37,479	26,624	30,388
Farms reporting living expenses	39	2	8	12	13	2
Total family living expense	65,955	-	49,230	62,816	74,802	-
Total living, invest, cap. purch	88,493	-	43,000	85,271	112,647	-
Crop Acres						
Total crop acres	2,041	478	720	1,334	2,493	4,841
Total crop acres owned	382	120	182	260	440	874
Total crop acres cash rented	1,616	333	497	1,009	2,045	3,917
Total crop acres share rented	43	25	41	65	8	50
Machinery value per crop acre	440	191	484	457	417	456

Financial Summary
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2020
(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	216	27	50	43	48	48
Income Statement						
Gross cash farm income	1,220,291	602,598	1,068,932	1,285,590	1,675,612	1,211,590
Total cash farm expense	1,013,091	532,590	861,442	1,071,924	1,389,747	1,011,981
Net cash farm income	207,199	70,008	207,489	213,665	285,865	199,609
Inventory change	59,412	61,834	5,115	101,707	64,448	71,682
Depreciation	-69,076	-17,822	-50,681	-74,682	-93,043	-88,077
Net farm income from operations	197,535	114,020	161,923	240,691	257,269	183,215
Gain or loss on capital sales	1,994	149	91	517	11,245	-2,913
Average net farm income	199,529	114,169	162,014	241,207	268,514	180,302
Median net farm income	145,314	80,475	132,101	178,963	236,708	110,293
Profitability (cost)						
Rate of return on assets	5.7 %	9.9 %	6.9 %	6.0 %	5.9 %	3.9 %
Rate of return on equity	7.1 %	21.2 %	10.3 %	8.3 %	7.1 %	4.2 %
Operating profit margin	14.2 %	15.0 %	13.5 %	15.7 %	14.5 %	12.8 %
Asset turnover rate	39.7 %	66.3 %	50.8 %	38.4 %	40.3 %	30.5 %
Profitability (market)						
Rate of return on assets	5.2 %	9.7 %	6.6 %	4.9 %	5.2 %	4.2 %
Rate of return on equity	6.8 %	20.5 %	10.1 %	7.0 %	6.4 %	5.0 %
Operating profit margin	16.7 %	16.0 %	14.8 %	15.6 %	17.4 %	18.8 %
Asset turnover rate	31.0 %	60.8 %	44.9 %	31.5 %	29.8 %	22.4 %
Liquidity & Repayment (end of year)						
Current assets	943,631	351,067	672,220	1,158,888	1,217,197	1,093,267
Current liabilities	577,457	207,659	480,436	710,089	741,846	603,326
Current ratio	1.63	1.69	1.40	1.63	1.64	1.81
Working capital	366,174	143,408	191,784	448,799	475,351	489,941
Change in working capital	123,375	67,039	48,845	130,327	172,347	177,499
Working capital to gross inc	29.7 %	22.6 %	17.9 %	33.7 %	28.9 %	39.6 %
Term debt coverage ratio	2.22	2.96	2.16	2.32	2.22	2.01
Replacement coverage ratio	1.54	2.87	1.72	1.68	1.46	1.24
Term debt to EBITDA	2.33	2.17	2.49	2.29	2.22	2.42
Solvency (end of year at cost)						
Number of farms	216	27	50	43	48	48
Total assets	3,532,920	1,198,268	2,456,544	3,947,081	4,495,603	4,633,683
Total liabilities	1,506,964	765,353	1,288,948	1,782,478	1,861,373	1,549,995
Net worth	2,025,956	432,915	1,167,597	2,164,603	2,634,229	3,083,687
Net worth change	160,042	111,872	125,971	187,577	199,548	158,454
Farm debt to asset ratio	45 %	63 %	55 %	47 %	44 %	36 %
Total debt to asset ratio	43 %	64 %	52 %	45 %	41 %	33 %
Change in earned net worth %	9 %	35 %	12 %	9 %	8 %	5 %
Solvency (end of year at market)						
Number of farms	216	27	50	43	48	48
Total assets	4,540,770	1,318,946	2,776,411	4,801,610	6,169,710	6,328,308
Total liabilities	1,856,073	812,537	1,428,923	2,251,398	2,363,919	2,026,019
Net worth	2,684,697	506,409	1,347,488	2,550,212	3,805,791	4,302,289
Total net worth change	208,704	123,845	141,283	198,099	293,513	251,360
Farm debt to asset ratio	43 %	62 %	54 %	49 %	41 %	35 %
Total debt to asset ratio	41 %	62 %	51 %	47 %	38 %	32 %
Change in total net worth %	8 %	32 %	12 %	8 %	8 %	6 %
Nonfarm Information						
Net nonfarm income	31,402	29,762	24,433	50,266	18,157	35,931
Farms reporting living expenses	39	9	5	8	5	12
Total family living expense	65,955	41,199	52,324	81,112	71,878	77,630
Total living, invest, cap. purch	88,493	41,371	16,774	130,418	105,328	118,753
Crop Acres						
Total crop acres	2,041	1,600	1,700	2,155	2,666	1,918
Total crop acres owned	382	93	169	364	620	544
Total crop acres cash rented	1,616	1,464	1,488	1,757	2,015	1,311
Total crop acres share rented	43	43	42	34	31	63
Machinery value per crop acre	440	113	328	452	464	648

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.

Coronavirus Food Assistance Program 2, a 2020 USDA FSA program that provides producers with financial assistance that gives them the ability to absorb some of the increased marketing costs associated with the COVID-19 pandemic, are included under "Other crop income per acre." "Government payments" are ARC and PLC payments as well as Coronavirus Food Assistance Program 1.

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.

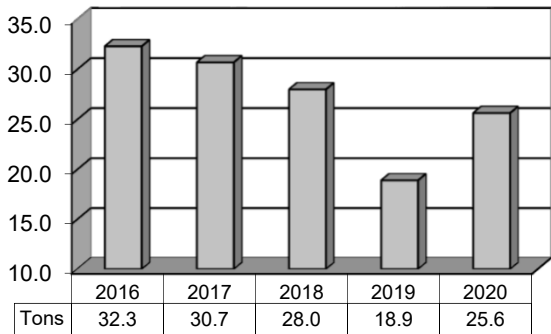
"Total direct expense per unit" and "Total dir & ovhd exp per unit" are calculated by dividing "Total direct expense per acre" and "Total dir & ovhd expenses per acre," respectively, by "Yield per acre." "With labor & management" is the breakeven yield after direct, overhead and a labor and management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

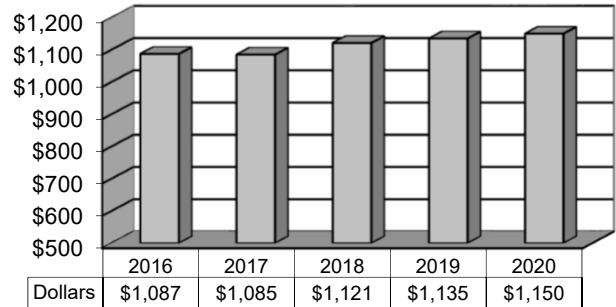
Rounding of individual items for the report may have caused minor discrepancies with the calculated totals.

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

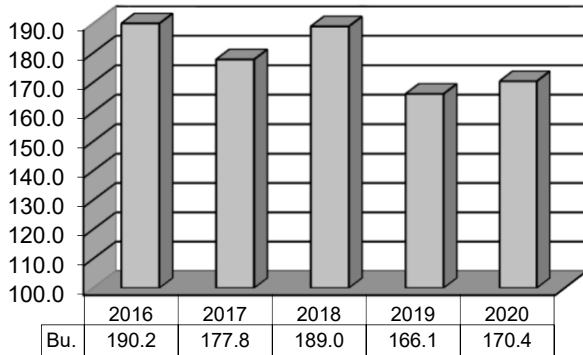
Sugar Beet Yields



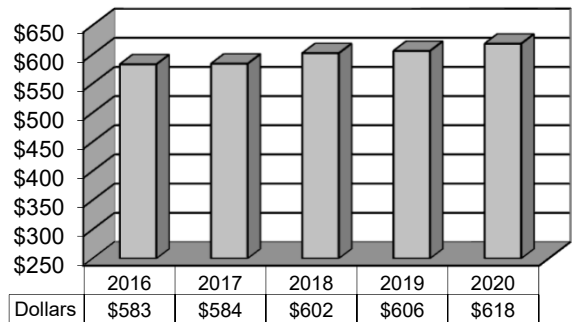
**Sugar Beet Total Listed Cost
(cash rented land)**



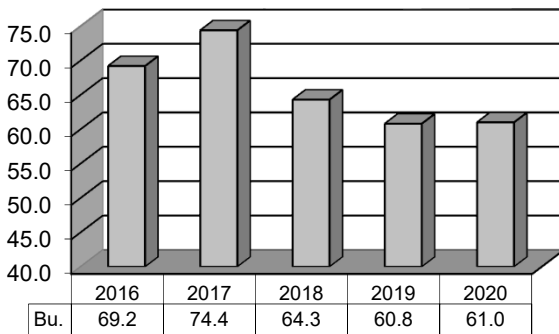
Corn Yields



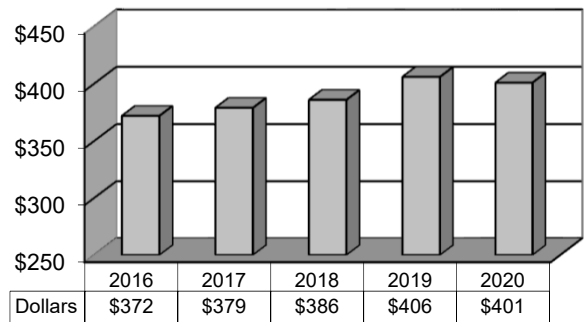
**Corn Total Listed Cost
(cash rented land)**



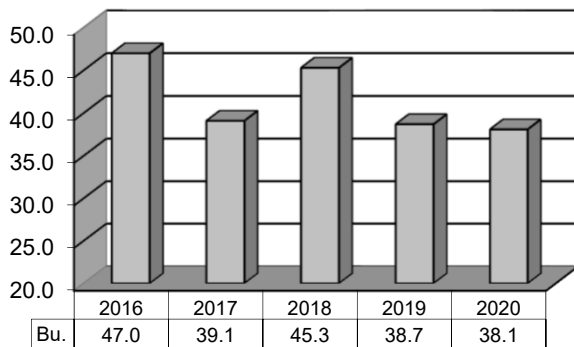
Spring Wheat Yields



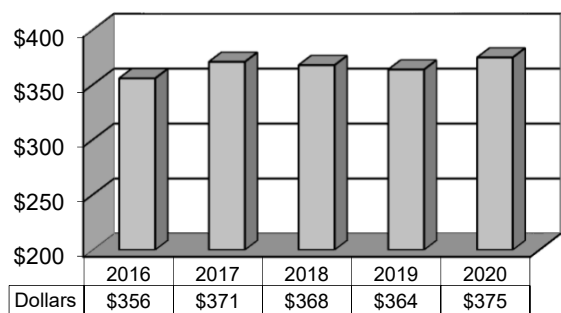
**Spring Wheat Total Listed Cost
(cash rented land)**



Soybeans Yields



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



Crop Enterprise Analysis
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2020
(Farms Sorted By Return to Overhead)

Barley on Cash Rent

	<u>Avg. Of All Farms</u>
Number of farms	10
Acres	182.42
Yield per acre (bu.)	69.13
Operators share of yield %	100.00
Value per bu.	4.43
Total product return per acre	306.15
Crop insurance per acre	0.76
Other crop income per acre	36.88
Gross return per acre	343.79
Direct Expenses	
Seed and plants	18.41
Fertilizer	59.00
Crop chemicals	26.65
Crop insurance	12.60
Drying expense	0.25
Storage	0.47
Fuel & oil	15.00
Repairs	34.99
Custom hire	10.79
Hired labor	2.41
Land rent	116.33
Machinery leases	2.12
Operating interest	3.32
Miscellaneous	4.06
Total direct expenses per acre	306.40
Return over direct exp per acre	37.39
Overhead Expenses	
Hired labor	18.82
Machinery leases	3.62
Building leases	0.61
Farm insurance	6.31
Utilities	5.45
Dues & professional fees	4.46
Interest	2.31
Mach & bldg depreciation	21.20
Miscellaneous	4.14
Total overhead expenses per acre	66.94
Total dir & ovhd expenses per acre	373.34
Net return per acre	-29.55
Government payments	26.97
Net return with govt pmts	-2.58
Labor & management charge	27.07
Net return over lbr & mgt	-29.64
Cost of Production	
Total direct expense per bu.	4.43
Total dir & ovhd exp per bu.	5.40
Less govt & other income	4.47
With labor & management	4.86
Net value per unit	4.43
Machinery cost per acre	87.69
Est. labor hours per acre	1.75

Crop Enterprise Analysis
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2020
(Farms Sorted By Return to Overhead)

Beans, Navy on Cash Rent

	<u>Avg. Of All Farms</u>
Number of farms	5
Acres	302.55
Yield per acre (cwt.)	17.40
Operators share of yield %	100.00
Value per cwt.	28.53
Total product return per acre	496.37
Crop insurance per acre	150.73
Other crop income per acre	28.53
Gross return per acre	675.63
Direct Expenses	
Seed and plants	57.48
Fertilizer	26.94
Crop chemicals	56.48
Crop insurance	32.15
Fuel & oil	44.79
Repairs	21.09
Hired labor	0.99
Land rent	155.52
Operating interest	7.57
Total direct expenses per acre	403.01
Return over direct exp per acre	272.62
Overhead Expenses	
Hired labor	11.13
Machinery leases	2.08
Building leases	3.76
Farm insurance	3.83
Utilities	2.12
Dues & professional fees	4.21
Interest	8.88
Mach & bldg depreciation	18.73
Miscellaneous	2.03
Total overhead expenses per acre	56.77
Total dir & ovhd expenses per acre	459.78
Net return per acre	215.85
Government payments	-
Net return with govt pmts	215.85
Labor & management charge	22.76
Net return over lbr & mgt	193.08
Cost of Production	
Total direct expense per cwt.	23.17
Total dir & ovhd exp per cwt.	26.43
Less govt & other income	16.12
With labor & management	17.43
Net value per unit	28.53
Machinery cost per acre	95.01
Est. labor hours per acre	1.92

Crop Enterprise Analysis
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2020
(Farms Sorted By Return to Overhead)

Beans, Pinto on Owned Land

	<u>Avg. Of All Farms</u>
Number of farms	6
Acres	146.82
Yield per acre (cwt.)	21.05
Operators share of yield %	100.00
Value per cwt.	29.36
Total product return per acre	618.06
Crop insurance per acre	2.87
Other crop income per acre	36.94
Gross return per acre	657.88
Direct Expenses	
Seed and plants	74.20
Fertilizer	51.41
Crop chemicals	78.85
Cover crop expense	0.15
Crop insurance	40.06
Fuel & oil	20.26
Repairs	50.76
Custom hire	1.21
Operating interest	9.43
Total direct expenses per acre	326.33
Return over direct exp per acre	331.55
Overhead Expenses	
Hired labor	39.40
Machinery leases	0.74
RE & pers. property taxes	18.38
Farm insurance	7.41
Utilities	6.85
Dues & professional fees	4.80
Interest	41.50
Mach & bldg depreciation	50.05
Miscellaneous	1.82
Total overhead expenses per acre	170.95
Total dir & ovhd expenses per acre	497.28
Net return per acre	160.60
Government payments	-
Net return with govt pmts	160.60
Labor & management charge	19.69
Net return over lbr & mgt	140.90
Cost of Production	
Total direct expense per cwt.	15.50
Total dir & ovhd exp per cwt.	23.63
Less govt & other income	21.73
With labor & management	22.67
Net value per unit	29.36
Machinery cost per acre	127.57
Est. labor hours per acre	1.71

Crop Enterprise Analysis
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2020
(Farms Sorted By Return to Overhead)

Beans, Pinto on Cash Rent

	<u>Avg. Of All Farms</u>
Number of farms	5
Acres	214.65
Yield per acre (cwt.)	20.12
Operators share of yield %	100.00
Value per cwt.	31.23
Total product return per acre	628.23
Crop insurance per acre	21.71
Other crop income per acre	15.51
Gross return per acre	665.45
Direct Expenses	
Seed and plants	64.00
Fertilizer	35.00
Crop chemicals	70.10
Cover crop expense	1.14
Crop insurance	32.65
Fuel & oil	16.48
Repairs	35.91
Land rent	91.60
Operating interest	7.86
Miscellaneous	0.11
Total direct expenses per acre	354.86
Return over direct exp per acre	310.59
Overhead Expenses	
Hired labor	16.60
Building leases	0.28
Farm insurance	8.21
Utilities	3.96
Dues & professional fees	7.48
Interest	4.23
Mach & bldg depreciation	40.50
Miscellaneous	3.41
Total overhead expenses per acre	84.66
Total dir & ovhd expenses per acre	439.52
Net return per acre	225.92
Government payments	-
Net return with govt pmts	225.92
Labor & management charge	30.30
Net return over lbr & mgt	195.62
Cost of Production	
Total direct expense per cwt.	17.64
Total dir & ovhd exp per cwt.	21.85
Less govt & other income	20.00
With labor & management	21.50
Net value per unit	31.23
Machinery cost per acre	96.29
Est. labor hours per acre	1.83

Crop Enterprise Analysis
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2020
(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	63	12	12	13
Acres	222.54	149.09	350.44	250.39
Yield per acre (bu.)	174.65	148.92	174.79	194.24
Operators share of yield %	100.00	100.00	100.00	100.00
Value per bu.	3.95	3.63	3.89	4.28
Total product return per acre	689.73	540.20	680.56	831.79
Hedging gains/losses per acre	-1.46	-	-3.41	-
Crop insurance per acre	12.61	1.37	3.29	25.65
Other crop income per acre	42.11	40.25	48.98	36.31
Gross return per acre	742.99	581.82	729.42	893.75
Direct Expenses				
Seed and plants	92.19	97.25	87.08	97.37
Fertilizer	116.51	128.69	115.91	112.13
Crop chemicals	26.70	33.62	22.84	24.70
Crop insurance	21.00	21.15	22.02	23.25
Driving expense	7.89	6.86	6.42	9.81
Storage	0.43	-	1.30	-
Fuel & oil	24.74	21.97	23.46	24.72
Repairs	54.94	66.48	59.08	48.11
Custom hire	4.85	1.69	5.12	8.68
Hired labor	1.63	-	2.96	1.66
Machinery leases	0.59	-	0.60	0.30
Marketing	0.23	-	0.62	-
Operating interest	17.98	16.37	21.78	16.58
Miscellaneous	3.65	0.32	1.96	1.26
Total direct expenses per acre	373.32	394.40	371.14	368.57
Return over direct exp per acre	369.67	187.42	358.28	525.18
Overhead Expenses				
Custom hire	1.51	1.82	3.09	0.23
Hired labor	33.90	26.39	43.85	25.20
Machinery leases	8.48	4.69	3.30	19.06
Building leases	1.19	0.49	2.91	0.10
RE & pers. property taxes	24.96	22.40	26.55	25.97
Farm insurance	9.74	9.96	9.88	9.81
Utilities	7.42	8.43	8.89	5.61
Dues & professional fees	4.38	5.18	3.90	4.74
Interest	43.05	42.38	31.67	39.40
Mach & bldg depreciation	49.91	43.86	53.06	53.94
Miscellaneous	5.37	3.29	5.55	3.22
Total overhead expenses per acre	189.90	168.90	192.64	187.28
Total dir & ovhd expenses per acre	563.22	563.30	563.78	555.85
Net return per acre	179.77	18.52	165.64	337.90
Government payments	32.13	33.16	28.58	36.48
Net return with govt pmts	211.90	51.68	194.23	374.38
Labor & management charge	46.17	53.72	53.77	35.23
Net return over lbr & mgt	165.73	-2.04	140.45	339.15
Cost of Production				
Total direct expense per bu.	2.14	2.65	2.12	1.90
Total dir & ovhd exp per bu.	3.22	3.78	3.23	2.86
Less govt & other income	2.74	3.28	2.78	2.35
With labor & management	3.00	3.64	3.09	2.54
Net value per unit	3.94	3.63	3.87	4.28
Machinery cost per acre	144.72	142.12	144.67	155.51
Est. labor hours per acre	2.45	2.17	2.77	1.91

Crop Enterprise Analysis
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2020
(Farms Sorted By Return to Overhead)

Corn 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	114	22	23	23
Acres	528.95	883.58	474.68	439.54
Yield per acre (bu.)	169.35	161.09	172.98	181.15
Operators share of yield %	100.00	100.00	100.00	100.00
Value per bu.	3.90	3.74	3.82	4.26
Total product return per acre	659.98	602.65	661.49	772.44
Hedging gains/losses per acre	-5.45	-13.07	-4.88	-
Crop insurance per acre	16.64	8.11	8.13	21.86
Other crop income per acre	44.54	52.76	40.20	44.71
Gross return per acre	715.70	650.45	704.95	839.02
Direct Expenses				
Seed and plants	90.41	94.22	92.48	84.30
Fertilizer	120.94	124.17	119.15	117.88
Crop chemicals	27.45	27.44	26.20	28.89
Crop insurance	20.25	21.82	20.46	19.39
Driving expense	7.62	6.62	6.96	7.86
Storage	0.37	0.38	0.80	0.38
Fuel & oil	22.72	21.18	22.47	24.39
Repairs	50.87	47.06	51.20	48.39
Custom hire	8.46	14.78	5.51	4.09
Hired labor	2.69	5.79	1.19	1.57
Land rent	146.11	159.56	130.41	131.54
Machinery leases	1.39	0.15	2.55	0.40
Marketing	0.41	-	0.38	0.63
Operating interest	16.04	19.98	16.68	13.79
Miscellaneous	2.76	2.71	2.58	2.76
Total direct expenses per acre	518.49	545.87	499.01	486.25
Return over direct exp per acre	197.22	104.58	205.94	352.77
Overhead Expenses				
Custom hire	0.55	0.38	0.73	-
Hired labor	21.49	17.93	20.88	20.80
Machinery leases	9.41	6.39	8.56	22.75
Building leases	2.36	5.83	0.80	0.65
Farm insurance	7.61	4.76	10.46	7.50
Utilities	5.68	4.65	7.41	5.02
Dues & professional fees	3.78	2.23	4.70	4.02
Interest	5.35	6.45	7.46	4.33
Mach & bldg depreciation	38.84	27.68	48.03	50.77
Miscellaneous	4.81	5.28	6.19	3.57
Total overhead expenses per acre	99.88	81.58	115.22	119.41
Total dir & ovhd expenses per acre	618.37	627.45	614.23	605.66
Net return per acre	97.33	23.00	90.72	233.35
Government payments	30.58	29.23	29.71	35.49
Net return with govt pmts	127.92	52.23	120.43	268.84
Labor & management charge	41.28	28.16	46.38	50.83
Net return over lbr & mgt	86.63	24.07	74.05	218.01
Cost of Production				
Total direct expense per bu.	3.06	3.39	2.88	2.68
Total dir & ovhd exp per bu.	3.65	3.89	3.55	3.34
Less govt & other income	3.14	3.42	3.13	2.78
With labor & management	3.39	3.59	3.40	3.06
Net value per unit	3.86	3.66	3.80	4.26
Machinery cost per acre	135.38	122.76	143.84	153.46
Est. labor hours per acre	2.19	1.96	2.36	2.39

Crop Enterprise Analysis
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2020
(Farms Sorted By Return to Overhead)

Hay, Alfalfa on Cash Rent

	<u>Avg. Of All Farms</u>
Number of farms	9
Acres	94.81
Yield per acre (ton)	3.92
Operators share of yield %	100.00
Value per ton	124.98
Total product return per acre	489.50
Other crop income per acre	17.60
Gross return per acre	507.09
Direct Expenses	
Seed and plants	19.05
Fertilizer	48.20
Crop chemicals	4.67
Crop insurance	2.45
Fuel & oil	17.76
Repairs	48.47
Land rent	131.48
Machinery leases	37.08
Operating interest	16.04
Miscellaneous	6.03
Total direct expenses per acre	331.23
Return over direct exp per acre	175.86
Overhead Expenses	
Custom hire	2.79
Hired labor	21.81
Machinery leases	1.75
Building leases	0.28
Farm insurance	7.52
Utilities	4.87
Dues & professional fees	3.40
Interest	2.67
Mach & bldg depreciation	31.43
Miscellaneous	5.44
Total overhead expenses per acre	81.97
Total dir & ovhd expenses per acre	413.19
Net return per acre	93.90
Government payments	21.67
Net return with govt pmts	115.57
Labor & management charge	37.20
Net return over lbr & mgt	78.37
Cost of Production	
Total direct expense per ton	84.57
Total dir & ovhd exp per ton	105.49
Less govt & other income	95.47
With labor & management	104.97
Net value per unit	124.98
Machinery cost per acre	137.28
Est. labor hours per acre	2.05

Crop Enterprise Analysis
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2020
(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	81	16	16	17
Acres	273.80	366.29	172.38	314.34
Yield per acre (bu.)	39.22	30.95	42.36	46.53
Operators share of yield %	100.00	100.00	100.00	100.00
Value per bu.	9.96	9.41	9.50	10.74
Total product return per acre	390.85	291.30	402.29	499.67
Hedging gains/losses per acre	-2.53	-	-1.86	-6.51
Crop insurance per acre	14.42	22.73	12.48	14.51
Other crop income per acre	27.52	19.59	23.31	40.00
Gross return per acre	430.27	333.62	436.22	547.67
Direct Expenses				
Seed and plants	59.48	62.26	56.37	57.75
Fertilizer	7.83	11.00	11.30	2.53
Crop chemicals	32.98	30.04	36.88	32.79
Crop insurance	18.89	23.16	15.95	13.83
Storage	0.34	0.22	0.97	-
Fuel & oil	12.66	12.97	12.03	12.49
Repairs	28.56	33.58	32.21	26.58
Custom hire	4.47	6.10	3.77	5.65
Hired labor	0.82	-	0.46	2.24
Machinery leases	0.62	0.52	3.66	-
Operating interest	8.52	12.38	6.19	7.27
Miscellaneous	2.28	2.71	1.52	1.64
Total direct expenses per acre	177.45	194.93	181.31	162.77
Return over direct exp per acre	252.82	138.69	254.91	384.90
Overhead Expenses				
Custom hire	0.75	1.08	1.05	-
Hired labor	13.96	14.58	13.97	12.66
Machinery leases	4.87	0.15	15.67	6.67
Building leases	0.96	1.12	0.08	2.37
RE & pers. property taxes	22.12	20.51	25.35	25.86
Farm insurance	7.66	8.86	6.26	6.98
Utilities	5.70	8.45	3.19	3.60
Dues & professional fees	3.92	4.64	4.35	2.29
Interest	41.50	21.19	55.04	67.27
Mach & bldg depreciation	29.41	31.37	22.50	29.02
Miscellaneous	3.58	3.30	4.76	4.11
Total overhead expenses per acre	134.43	115.26	152.24	160.84
Total dir & ovhd expenses per acre	311.88	310.20	333.54	323.60
Net return per acre	118.39	23.43	102.67	224.07
Government payments	28.97	29.46	24.74	32.68
Net return with govt pmts	147.35	52.89	127.41	256.75
Labor & management charge	30.90	41.31	26.50	26.11
Net return over lbr & mgt	116.46	11.58	100.91	230.64
Cost of Production				
Total direct expense per bu.	4.52	6.30	4.28	3.50
Total dir & ovhd exp per bu.	7.95	10.02	7.87	6.95
Less govt & other income	6.21	7.70	6.49	5.22
With labor & management	7.00	9.04	7.11	5.78
Net value per unit	9.90	9.41	9.45	10.60
Machinery cost per acre	82.14	83.97	93.26	83.41
Est. labor hours per acre	1.49	2.13	1.36	1.19

Crop Enterprise Analysis
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2020
(Farms Sorted By Return to Overhead)

Soybeans on Cash Rent

	<u>Ava. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	143	28	28	29
Acres	666.88	626.87	685.11	609.03
Yield per acre (bu.)	37.88	30.92	39.79	39.87
Operators share of yield %	100.00	100.00	100.00	100.00
Value per bu.	9.86	9.16	9.77	10.49
Total product return per acre	373.56	283.33	388.66	418.07
Hedging gains/losses per acre	-2.44	-4.14	-8.12	-0.56
Crop insurance per acre	25.80	23.86	15.84	66.89
Other crop income per acre	26.73	23.16	37.14	25.56
Gross return per acre	423.65	326.20	433.53	509.96
Direct Expenses				
Seed and plants	56.99	57.89	57.03	55.27
Fertilizer	8.94	8.35	9.49	6.69
Crop chemicals	33.38	32.10	33.31	30.90
Crop insurance	17.54	18.25	15.44	16.63
Storage	0.53	0.79	0.20	0.17
Fuel & oil	12.28	13.46	11.45	11.90
Repairs	29.37	30.32	24.82	28.57
Custom hire	3.55	4.00	2.61	4.63
Hired labor	1.08	0.69	1.68	-
Land rent	133.14	138.82	149.30	121.36
Machinery leases	1.36	3.88	2.11	0.12
Marketing	0.33	0.82	0.19	0.15
Operating interest	8.05	13.49	8.07	8.77
Miscellaneous	2.12	3.21	1.44	1.32
Total direct expenses per acre	308.67	326.06	317.15	286.48
Return over direct exp per acre	114.99	0.14	116.38	223.48
Overhead Expenses				
Custom hire	0.26	0.03	1.01	0.28
Hired labor	14.77	12.94	9.47	18.05
Machinery leases	4.39	2.74	3.30	3.64
Building leases	0.93	0.67	2.20	0.66
Farm insurance	6.35	6.88	5.06	7.03
Utilities	4.27	4.65	3.31	4.92
Dues & professional fees	3.95	4.64	2.92	4.29
Interest	3.52	5.66	4.18	2.53
Mach & bldg depreciation	24.93	29.87	21.46	23.40
Miscellaneous	3.27	4.27	3.56	1.51
Total overhead expenses per acre	66.65	72.35	56.47	66.32
Total dir & ovhd expenses per acre	375.32	398.41	373.62	352.80
Net return per acre	48.34	-72.21	59.91	157.17
Government payments	27.89	28.08	30.03	26.58
Net return with govt pmts	76.23	-44.12	89.94	183.75
Labor & management charge	27.56	27.19	21.08	26.28
Net return over lbr & mgt	48.67	-71.31	68.86	157.47
Cost of Production				
Total direct expense per bu.	8.15	10.54	7.97	7.19
Total dir & ovhd exp per bu.	9.91	12.88	9.39	8.85
Less govt & other income	7.85	10.59	7.51	5.88
With labor & management	8.58	11.47	8.04	6.54
Net value per unit	9.80	9.03	9.56	10.47
Machinery cost per acre	77.86	86.99	69.69	73.73
Est. labor hours per acre	1.38	1.46	1.18	1.19

Crop Enterprise Analysis
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2020
(Farms Sorted By Return to Overhead)

Soybeans, Food on Owned Land

	<u>Avg. Of All Farms</u>
Number of farms	6
Acres	280.00
Yield per acre (bu.)	40.99
Operators share of yield %	100.00
Value per bu.	12.39
Total product return per acre	508.02
Crop insurance per acre	21.26
Other crop income per acre	23.98
Gross return per acre	553.27
Direct Expenses	
Seed and plants	50.13
Fertilizer	6.71
Crop chemicals	43.87
Crop insurance	19.91
Fuel & oil	16.69
Repairs	37.07
Custom hire	2.14
Hired labor	0.22
Operating interest	9.48
Miscellaneous	2.03
Total direct expenses per acre	188.26
Return over direct exp per acre	365.01
Overhead Expenses	
Custom hire	0.48
Hired labor	15.80
Machinery leases	0.92
RE & pers. property taxes	31.83
Farm insurance	8.54
Utilities	7.58
Dues & professional fees	5.67
Interest	29.81
Mach & bldg depreciation	16.64
Miscellaneous	6.42
Total overhead expenses per acre	123.70
Total dir & ovhd expenses per acre	311.96
Net return per acre	241.31
Government payments	34.83
Net return with govt pmts	276.14
Labor & management charge	29.39
Net return over lbr & mgt	246.74
Cost of Production	
Total direct expense per bu.	4.59
Total dir & ovhd exp per bu.	7.61
Less govt & other income	5.66
With labor & management	6.37
Net value per unit	12.39
Machinery cost per acre	74.00
Est. labor hours per acre	0.97

Crop Enterprise Analysis
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2020
(Farms Sorted By Return to Overhead)

Soybeans, Food on Cash Rent

	<u>Avg. Of All Farms</u>
Number of farms	11
Acres	450.32
Yield per acre (bu.)	40.60
Operators share of yield %	100.00
Value per bu.	12.44
Total product return per acre	505.06
Crop insurance per acre	18.37
Other crop income per acre	27.09
Gross return per acre	550.52
Direct Expenses	
Seed and plants	46.33
Fertilizer	9.85
Crop chemicals	38.41
Crop insurance	16.66
Fuel & oil	16.35
Repairs	36.34
Custom hire	3.61
Land rent	158.07
Machinery leases	1.48
Utilities	0.33
Operating interest	9.56
Miscellaneous	3.42
Total direct expenses per acre	340.39
Return over direct exp per acre	210.13
Overhead Expenses	
Hired labor	16.35
Machinery leases	0.36
Farm insurance	5.46
Utilities	5.90
Dues & professional fees	4.32
Interest	1.58
Mach & bldg depreciation	17.93
Miscellaneous	5.32
Total overhead expenses per acre	57.22
Total dir & ovhd expenses per acre	397.61
Net return per acre	152.91
Government payments	32.91
Net return with govt pmts	185.83
Labor & management charge	30.45
Net return over lbr & mgt	155.38
Cost of Production	
Total direct expense per bu.	8.38
Total dir & ovhd exp per bu.	9.79
Less govt & other income	7.86
With labor & management	8.61
Net value per unit	12.44
Machinery cost per acre	76.61
Est. labor hours per acre	1.04

Crop Enterprise Analysis
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2020
(Farms Sorted By Return to Overhead)

Soybeans, Seed on Owned Land

	Avg. Of All Farms
Number of farms	12
Acres	295.34
Yield per acre (bu.)	39.39
Operators share of yield %	100.00
Value per bu.	10.93
Total product return per acre	430.67
Crop insurance per acre	20.38
Other crop income per acre	32.04
Gross return per acre	483.09
Direct Expenses	
Seed and plants	56.47
Fertilizer	9.85
Crop chemicals	32.26
Crop insurance	25.52
Storage	0.21
Fuel & oil	12.74
Repairs	29.62
Custom hire	3.07
Machinery leases	2.23
Marketing	0.34
Operating interest	10.33
Miscellaneous	3.54
Total direct expenses per acre	186.19
Return over direct exp per acre	296.90
Overhead Expenses	
Hired labor	27.63
Machinery leases	2.98
Building leases	0.22
RE & pers. property taxes	19.10
Farm insurance	6.88
Utilities	4.10
Dues & professional fees	4.33
Interest	45.34
Mach & bldg depreciation	19.73
Miscellaneous	3.73
Total overhead expenses per acre	134.04
Total dir & ovhd expenses per acre	320.23
Net return per acre	162.87
Government payments	26.60
Net return with govt pmts	189.47
Labor & management charge	20.24
Net return over lbr & mgt	169.23
Cost of Production	
Total direct expense per bu.	4.73
Total dir & ovhd exp per bu.	8.13
Less govt & other income	6.12
With labor & management	6.64
Net value per unit	10.93
Machinery cost per acre	68.27
Est. labor hours per acre	1.85

Crop Enterprise Analysis
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2020
(Farms Sorted By Return to Overhead)

Soybeans, Seed on Cash Rent

	Avg. Of All Farms
Number of farms	23
Acres	805.97
Yield per acre (bu.)	39.00
Operators share of yield %	100.00
Value per bu.	10.99
Total product return per acre	428.55
Crop insurance per acre	20.55
Other crop income per acre	26.16
Gross return per acre	475.26
Direct Expenses	
Seed and plants	57.78
Fertilizer	12.17
Crop chemicals	36.14
Crop insurance	21.80
Storage	0.43
Fuel & oil	13.13
Repairs	28.41
Custom hire	6.31
Land rent	129.85
Machinery leases	1.47
Hauling and trucking	0.17
Marketing	0.59
Operating interest	8.32
Miscellaneous	3.14
Total direct expenses per acre	319.71
Return over direct exp per acre	155.55
Overhead Expenses	
Hired labor	19.82
Machinery leases	1.48
Farm insurance	5.87
Utilities	3.47
Dues & professional fees	2.98
Interest	1.60
Mach & bldg depreciation	19.04
Miscellaneous	3.62
Total overhead expenses per acre	57.89
Total dir & ovhd expenses per acre	377.60
Net return per acre	97.66
Government payments	27.73
Net return with govt pmts	125.40
Labor & management charge	27.29
Net return over lbr & mgt	98.11
Cost of Production	
Total direct expense per bu.	8.20
Total dir & ovhd exp per bu.	9.68
Less govt & other income	7.77
With labor & management	8.47
Net value per unit	10.99
Machinery cost per acre	68.61
Est. labor hours per acre	1.56

Crop Enterprise Analysis
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2020
(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	32	6	7	7
Acres	141.69	144.90	168.21	87.66
Yield per acre (ton)	25.42	20.93	26.83	28.21
Operators share of yield %	100.00	100.00	100.00	100.00
Value per ton	39.90	31.42	40.57	51.16
Total product return per acre	1,014.29	657.52	1,088.45	1,443.31
Crop insurance per acre	10.17	22.14	12.73	13.27
Other crop income per acre	28.21	22.39	31.67	24.41
Gross return per acre	1,052.67	702.05	1,132.86	1,481.00
Direct Expenses				
Seed and plants	219.89	194.68	225.48	229.93
Fertilizer	77.07	72.83	69.89	99.11
Crop chemicals	129.90	143.31	116.21	109.70
Crop insurance	29.05	35.88	28.71	30.73
Fuel & oil	49.43	49.76	47.61	43.92
Repairs	102.66	123.36	105.55	110.43
Custom hire	24.96	29.69	54.70	11.24
Hired labor	18.15	8.73	41.71	6.52
Machinery leases	1.73	-	4.02	5.08
Hauling and trucking	10.14	0.79	35.98	-
Operating interest	27.07	47.06	24.92	14.84
Miscellaneous	5.57	0.42	12.85	4.92
Total direct expenses per acre	695.64	706.49	767.63	666.42
Return over direct exp per acre	357.03	-4.44	365.23	814.58
Overhead Expenses				
Custom hire	0.63	1.71	-	-
Hired labor	59.32	35.57	46.10	68.07
Machinery leases	6.29	18.72	0.96	4.77
Building leases	3.28	0.09	4.53	5.14
RE & pers. property taxes	27.62	30.49	22.30	28.35
Farm insurance	14.53	15.95	5.76	18.65
Utilities	11.82	5.29	8.16	16.85
Dues & professional fees	6.74	4.86	5.37	7.21
Interest	65.95	59.57	62.08	48.42
Mach & bldg depreciation	94.48	85.23	79.99	90.97
Miscellaneous	10.22	3.20	5.40	22.36
Total overhead expenses per acre	300.88	260.69	240.63	310.79
Total dir & ovhd expenses per acre	996.52	967.18	1,008.26	977.20
Net return per acre	56.15	-265.13	124.59	503.79
Government payments	17.24	1.84	20.90	23.08
Net return with govt pmts	73.39	-263.29	145.49	526.87
Labor & management charge	89.19	71.80	97.95	136.27
Net return over lbr & mgt	-15.80	-335.09	47.54	390.60
Cost of Production				
Total direct expense per ton	27.37	33.76	28.61	23.62
Total dir & ovhd exp per ton	39.20	46.21	37.58	34.63
Less govt & other income	37.02	44.00	35.15	32.48
With labor & management	40.53	47.43	38.80	37.31
Net value per unit	39.90	31.42	40.57	51.16
Machinery cost per acre	285.43	311.65	297.59	271.78
Est. labor hours per acre	4.32	2.75	4.36	6.01

Crop Enterprise Analysis
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2020
(Farms Sorted By Return to Overhead)

Sugar Beets on Owned Land, Joint Venture

	<u>Avg. Of All Farms</u>
Number of farms	12
Acres	175.34
Yield per acre (ton)	27.20
Operators share of yield %	100.00
Value per ton	42.17
Total product return per acre	1,147.01
Crop insurance per acre	8.90
Other crop income per acre	28.14
Gross return per acre	1,184.05
Direct Expenses	
Seed and plants	233.99
Fertilizer	82.89
Crop chemicals	134.86
Crop insurance	32.38
Fuel & oil	53.52
Repairs	119.38
Custom hire	3.79
Hired labor	23.01
Stock/quota lease	183.93
Machinery leases	0.11
Hauling and trucking	17.80
Operating interest	37.64
Miscellaneous	4.28
Total direct expenses per acre	927.58
Return over direct exp per acre	256.47
Overhead Expenses	
Custom hire	1.45
Hired labor	50.67
Machinery leases	16.53
Building leases	0.62
RE & pers. property taxes	28.48
Farm insurance	15.20
Utilities	15.33
Dues & professional fees	9.10
Interest	65.87
Mach & bldg depreciation	103.25
Miscellaneous	12.27
Total overhead expenses per acre	318.75
Total dir & ovhd expenses per acre	1,246.33
Net return per acre	-62.28
Government payments	21.85
Net return with govt pmts	-40.43
Labor & management charge	84.65
Net return over lbr & mgt	-125.08
Cost of Production	
Total direct expense per ton	34.10
Total dir & ovhd exp per ton	45.82
Less govt & other income	43.66
With labor & management	46.77
Net value per unit	42.17
Machinery cost per acre	303.92
Est. labor hours per acre	4.68

Crop Enterprise Analysis
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2020
(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	50	10	10	10
Acres	262.07	312.34	205.69	204.61
Yield per acre (ton)	24.39	21.47	26.76	30.17
Operators share of yield %	100.00	100.00	100.00	100.00
Value per ton	38.65	29.54	36.32	47.32
Total product return per acre	942.80	634.12	971.94	1,427.60
Crop insurance per acre	26.97	1.92	2.30	42.92
Other crop income per acre	28.25	21.21	22.08	24.34
Gross return per acre	998.02	657.24	996.32	1,494.86
Direct Expenses				
Seed and plants	220.38	214.00	222.89	227.30
Fertilizer	79.67	82.40	69.25	86.88
Crop chemicals	118.21	122.70	134.98	110.83
Crop insurance	32.75	30.72	41.43	23.80
Fuel & oil	48.84	50.83	48.92	49.96
Repairs	111.32	102.48	122.57	82.36
Custom hire	10.33	11.17	6.80	2.70
Hired labor	26.73	34.53	24.08	30.32
Land rent	140.31	154.48	136.18	130.29
Machinery leases	2.38	0.57	1.61	0.31
Hauling and trucking	22.71	29.72	24.26	10.33
Operating interest	19.86	29.94	17.67	16.88
Miscellaneous	4.78	3.22	6.17	2.26
Total direct expenses per acre	838.27	866.75	856.81	774.22
Return over direct exp per acre	159.75	-209.51	139.51	720.64
Overhead Expenses				
Custom hire	2.19	-	10.04	-
Hired labor	72.96	95.14	57.77	88.42
Machinery leases	13.29	16.23	6.97	17.80
Building leases	1.31	2.32	0.36	3.27
Farm insurance	15.13	10.95	11.69	18.88
Utilities	11.54	6.73	14.52	15.82
Dues & professional fees	7.76	4.77	5.17	16.88
Interest	9.75	7.09	8.27	17.87
Mach & bldg depreciation	75.74	69.43	84.03	91.16
Miscellaneous	11.72	9.01	23.26	13.75
Total overhead expenses per acre	221.38	221.67	222.09	283.86
Total dir & ovhd expenses per acre	1,059.65	1,088.42	1,078.90	1,058.08
Net return per acre	-61.63	-431.17	-82.58	436.78
Government payments	18.47	10.43	19.92	32.53
Net return with govt pmts	-43.16	-420.74	-62.67	469.31
Labor & management charge	98.87	72.09	111.61	121.66
Net return over lbr & mgt	-142.02	-492.83	-174.27	347.64
Cost of Production				
Total direct expense per ton	34.36	40.37	32.02	25.66
Total dir & ovhd exp per ton	43.44	50.70	40.32	35.07
Less govt & other income	40.42	49.14	38.66	31.76
With labor & management	44.47	52.49	42.83	35.79
Net value per unit	38.65	29.54	36.32	47.32
Machinery cost per acre	266.60	246.71	281.28	256.74
Est. labor hours per acre	5.43	6.63	5.23	5.76

Crop Enterprise Analysis
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2020
(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	39	7	8	8
Acres	310.30	419.40	226.66	233.60
Yield per acre (ton)	26.63	25.36	25.91	29.22
Operators share of yield %	100.00	100.00	100.00	100.00
Value per ton	41.35	39.32	41.40	50.50
Total product return per acre	1,101.15	997.06	1,072.50	1,475.49
Crop insurance per acre	30.25	32.15	19.65	23.75
Other crop income per acre	26.45	26.70	17.98	27.41
Gross return per acre	1,157.85	1,055.91	1,110.13	1,526.65
Direct Expenses				
Seed and plants	229.08	234.11	230.45	227.53
Fertilizer	81.02	72.03	100.80	86.10
Crop chemicals	124.31	126.70	117.45	97.85
Cover crop expense	0.13	-	-	0.86
Crop insurance	30.54	31.05	22.61	28.84
Fuel & oil	45.65	46.06	50.67	43.52
Repairs	95.20	91.43	84.62	87.22
Custom hire	19.73	51.09	23.68	2.37
Hired labor	25.95	36.47	14.88	21.48
Land rent	147.55	172.60	136.12	105.32
Stock/quota lease	192.15	227.12	186.47	278.51
Machinery leases	1.82	6.34	0.10	1.04
Hauling and trucking	27.48	57.51	8.69	39.69
Operating interest	30.55	40.30	26.71	15.34
Miscellaneous	4.78	10.13	2.00	2.39
Total direct expenses per acre	1,055.92	1,202.95	1,005.23	1,038.07
Return over direct exp per acre	101.93	-147.03	104.90	488.59
Overhead Expenses				
Hired labor	56.87	31.04	54.80	78.46
Machinery leases	14.27	8.62	5.69	6.22
Building leases	2.24	1.92	1.58	0.86
Farm insurance	12.04	6.60	14.63	15.53
Utilities	12.19	7.20	9.01	20.34
Dues & professional fees	8.83	5.73	10.00	14.22
Interest	10.09	13.46	9.30	6.49
Mach & bldg depreciation	65.21	60.82	88.18	76.26
Miscellaneous	9.79	11.47	4.33	6.14
Total overhead expenses per acre	191.53	146.84	197.52	224.53
Total dir & ovhd expenses per acre	1,247.45	1,349.79	1,202.75	1,262.59
Net return per acre	-89.60	-293.88	-92.62	264.06
Government payments	19.45	16.49	19.01	21.26
Net return with govt pmts	-70.15	-277.39	-73.60	285.32
Labor & management charge	93.74	89.64	96.74	123.23
Net return over lbr & mgt	-163.89	-367.03	-170.34	162.09
Cost of Production				
Total direct expense per ton	39.65	47.44	38.80	35.53
Total dir & ovhd exp per ton	46.84	53.23	46.43	43.21
Less govt & other income	43.98	50.26	44.24	40.74
With labor & management	47.50	53.79	47.97	44.95
Net value per unit	41.35	39.32	41.40	50.50
Machinery cost per acre	245.48	271.55	253.22	211.84
Est. labor hours per acre	4.20	3.58	4.18	4.97

Crop Enterprise Analysis
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2020
(Farms Sorted By Return to Overhead)

Sunflowers on Cash Rent

	<u>Avg. Of All Farms</u>
Number of farms	11
Acres	206.89
Yield per acre (cwt.)	19.03
Operators share of yield %	100.00
Value per cwt.	19.85
Total product return per acre	377.75
Crop insurance per acre	13.63
Other crop income per acre	24.89
Gross return per acre	416.27
Direct Expenses	
Seed and plants	41.49
Fertilizer	44.56
Crop chemicals	25.71
Cover crop expense	3.12
Crop insurance	15.69
Drying expense	1.18
Fuel & oil	14.35
Repairs	35.32
Custom hire	20.80
Hired labor	2.54
Land rent	106.43
Operating interest	6.92
Miscellaneous	1.69
Total direct expenses per acre	319.80
Return over direct exp per acre	96.46
Overhead Expenses	
Custom hire	0.20
Hired labor	8.56
Machinery leases	2.00
Farm insurance	7.26
Utilities	8.68
Dues & professional fees	5.27
Interest	4.70
Mach & bldg depreciation	32.77
Miscellaneous	4.71
Total overhead expenses per acre	74.15
Total dir & ovhd expenses per acre	393.96
Net return per acre	22.31
Government payments	23.59
Net return with govt pmts	45.90
Labor & management charge	39.36
Net return over lbr & mgt	6.54
Cost of Production	
Total direct expense per cwt.	16.81
Total dir & ovhd exp per cwt.	20.71
Less govt & other income	17.44
With labor & management	19.51
Net value per unit	19.85
Machinery cost per acre	108.12
Est. labor hours per acre	1.95

Crop Enterprise Analysis
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2020
(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	60	12	12	12
Acres	262.94	261.11	243.81	305.25
Yield per acre (bu.)	63.04	58.73	60.20	73.53
Operators share of yield %	100.00	100.00	100.00	100.00
Value per bu.	5.54	5.29	5.58	5.67
Total product return per acre	349.35	310.89	336.20	417.17
Hedging gains/losses per acre	-0.42	-	-	-1.81
Crop insurance per acre	11.28	2.68	8.30	10.48
Other crop income per acre	34.59	25.01	37.67	40.86
Gross return per acre	394.79	338.57	382.17	466.70
Direct Expenses				
Seed and plants	23.87	24.62	23.54	23.68
Fertilizer	80.68	83.16	84.26	71.26
Crop chemicals	31.71	31.66	32.43	32.27
Crop insurance	15.29	13.87	18.53	14.97
Drying expense	0.49	0.11	0.52	0.16
Fuel & oil	13.20	13.16	12.61	13.98
Repairs	26.70	33.57	25.06	26.33
Custom hire	9.69	20.98	2.57	2.73
Hired labor	0.26	-	-	1.14
Machinery leases	0.74	2.81	-	-
Marketing	1.82	3.75	-	0.06
Operating interest	6.55	8.98	7.36	5.71
Miscellaneous	2.71	7.03	2.06	1.36
Total direct expenses per acre	213.73	243.71	208.93	193.65
Return over direct exp per acre	181.06	94.87	173.24	273.05
Overhead Expenses				
Hired labor	17.14	17.86	23.18	15.62
Machinery leases	2.76	1.96	2.62	6.68
Building leases	1.19	1.83	2.29	1.08
RE & pers. property taxes	21.44	19.99	19.90	27.85
Farm insurance	7.56	8.98	6.62	6.82
Utilities	5.17	7.27	3.51	3.93
Dues & professional fees	4.64	4.79	3.62	3.61
Interest	40.21	40.03	33.22	62.90
Mach & bldg depreciation	27.10	31.06	21.98	22.16
Miscellaneous	4.64	4.21	4.78	2.74
Total overhead expenses per acre	131.86	137.98	121.72	153.39
Total dir & ovhd expenses per acre	345.59	381.68	330.65	347.03
Net return per acre	49.21	-43.11	51.52	119.67
Government payments	28.88	26.00	28.62	35.36
Net return with govt pmts	78.09	-17.11	80.14	155.03
Labor & management charge	29.59	41.75	19.13	21.82
Net return over lbr & mgt	48.50	-58.86	61.01	133.21
Cost of Production				
Total direct expense per bu.	3.39	4.15	3.47	2.63
Total dir & ovhd exp per bu.	5.48	6.50	5.49	4.72
Less govt & other income	4.30	5.59	4.25	3.57
With labor & management	4.77	6.30	4.57	3.86
Net value per unit	5.54	5.29	5.58	5.65
Machinery cost per acre	80.17	101.59	65.31	73.19
Est. labor hours per acre	1.60	2.01	1.39	1.53

Crop Enterprise Analysis
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2020
(Farms Sorted By Return to Overhead)

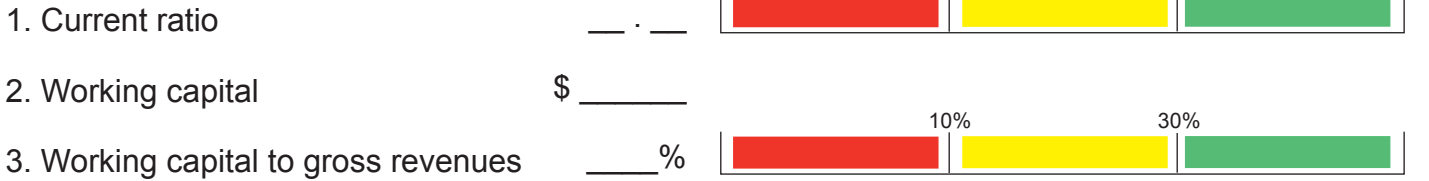
Wheat, Spring on Cash Rent

	<u>Ava. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	108	21	21	22
Acres	484.07	371.97	371.00	579.80
Yield per acre (bu.)	60.14	50.52	59.35	66.22
Operators share of yield %	100.00	100.00	100.00	100.00
Value per bu.	5.57	5.31	5.47	5.77
Total product return per acre	335.10	268.41	324.40	381.88
Hedging gains/losses per acre	0.05	-1.01	-	-
Crop insurance per acre	16.72	19.11	5.93	24.32
Other crop income per acre	34.71	27.13	38.77	38.78
Gross return per acre	386.58	313.64	369.11	444.98
Direct Expenses				
Seed and plants	23.62	22.53	25.13	21.01
Fertilizer	81.01	81.90	80.59	74.89
Crop chemicals	32.51	28.28	32.62	30.93
Cover crop expense	0.20	0.96	-	-
Crop insurance	14.11	16.17	10.95	11.98
Driving expense	0.60	0.48	0.19	0.96
Fuel & oil	12.96	12.64	12.74	14.76
Repairs	27.17	31.20	21.99	29.38
Custom hire	6.54	8.94	4.91	4.31
Hired labor	0.13	0.10	0.55	0.09
Land rent	125.88	146.07	121.79	115.12
Machinery leases	1.28	3.32	1.26	-
Marketing	0.35	0.50	0.25	0.30
Operating interest	6.62	10.59	8.56	4.30
Miscellaneous	3.43	4.33	1.52	3.31
Total direct expenses per acre	336.41	368.02	323.05	311.33
Return over direct exp per acre	50.17	-54.39	46.05	133.65
Overhead Expenses				
Hired labor	15.42	12.36	12.62	17.64
Machinery leases	3.63	0.76	2.26	2.11
Building leases	0.97	0.83	2.02	0.38
Farm insurance	7.15	7.56	6.07	6.55
Utilities	4.30	4.41	3.49	4.19
Dues & professional fees	4.00	4.91	4.23	4.17
Interest	3.22	4.34	2.12	2.18
Mach & bldg depreciation	22.63	23.88	18.01	26.72
Miscellaneous	3.29	3.34	3.09	3.34
Total overhead expenses per acre	64.61	62.39	53.91	67.28
Total dir & ovhd expenses per acre	401.03	430.41	376.97	378.62
Net return per acre	-14.45	-116.78	-7.86	66.36
Government payments	28.88	28.50	25.10	36.91
Net return with govt pmts	14.43	-88.27	17.24	103.28
Labor & management charge	28.48	27.02	26.88	30.01
Net return over lbr & mgt	-14.05	-115.29	-9.64	73.27
Cost of Production				
Total direct expense per bu.	5.59	7.29	5.44	4.70
Total dir & ovhd exp per bu.	6.67	8.52	6.35	5.72
Less govt & other income	5.33	7.06	5.18	4.21
With labor & management	5.81	7.60	5.63	4.66
Net value per unit	5.57	5.29	5.47	5.77
Machinery cost per acre	75.34	81.88	60.95	77.16
Est. labor hours per acre	1.38	1.41	1.23	1.57

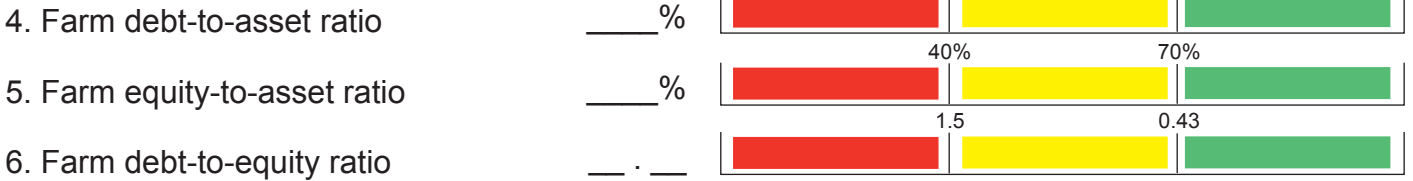
Farm Finance Scorecard

Year _____

Liquidity



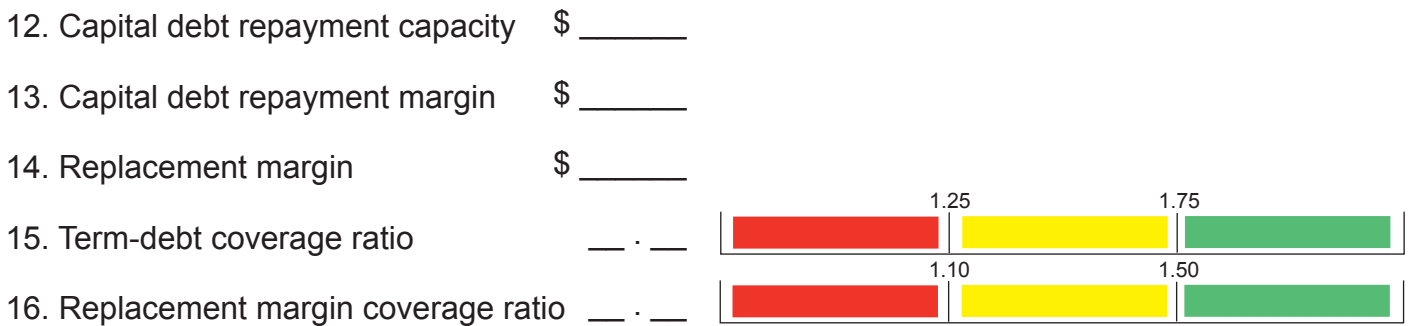
Solvency



Profitability



Repayment capacity



Financial efficiency

