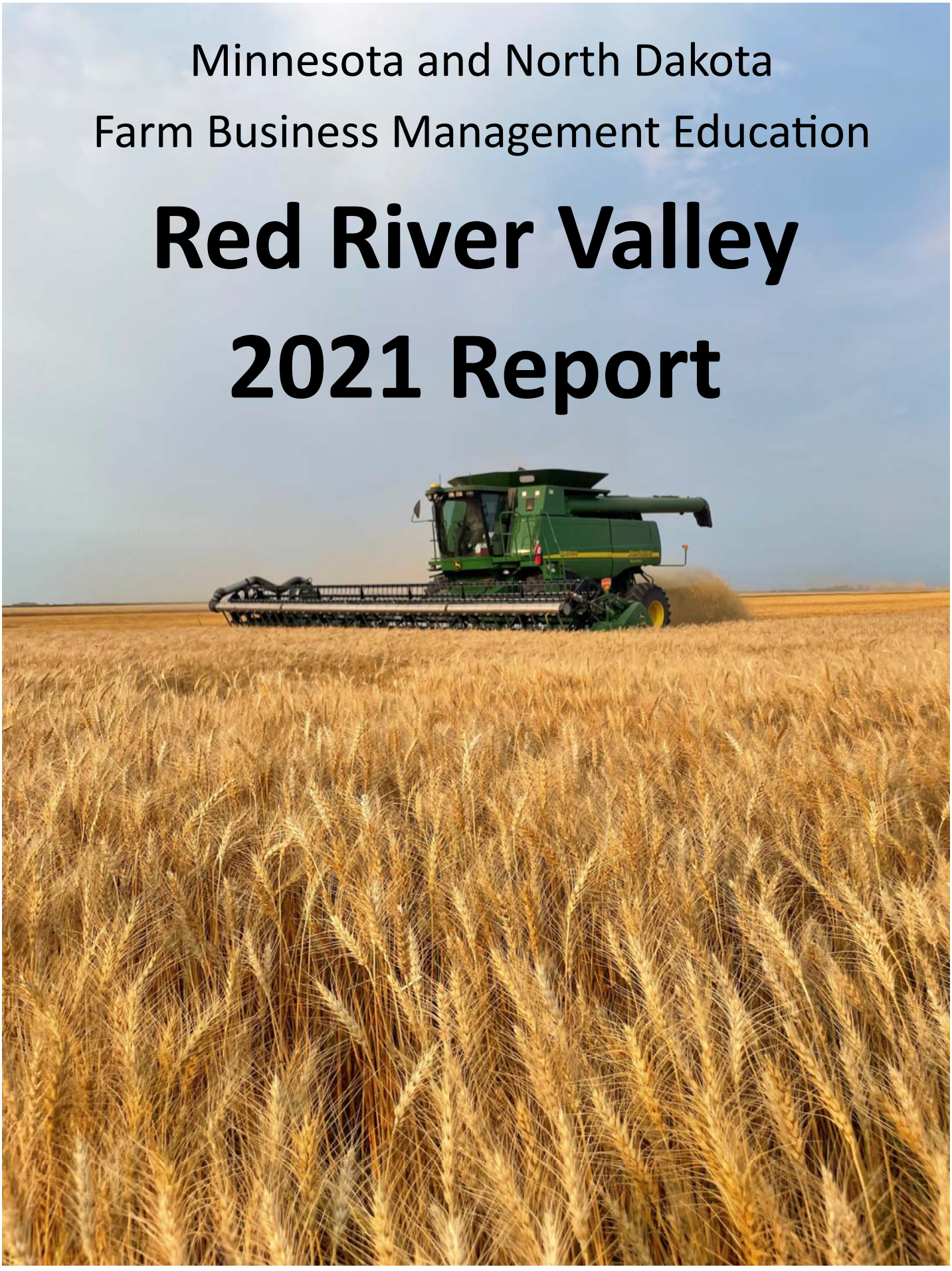
Minnesota and North Dakota

Farm Business Management Education

Red River Valley

2021 Report



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Minnesota Farm Business Management Education
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RED RIVER VALLEY AVERAGES
2021 ANNUAL REPORT

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The Red River Valley farm business analyses were submitted by the following cooperating instructors and farm management programs:

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A special acknowledgment is due AgCentric, Minnesota State Northern Center of Excellence in Agriculture, and the North Dakota State Board for Vocational and Technical Education for cooperation in the development of the 27th annual Red River Valley Report.

2021 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 2021 Red River Valley Report is based upon data generated by individual farm analysis completed by farm/ranch families enrolled in the Farm and Ranch Business Management Education programs in Minnesota and North Dakota. The tables in this report were created using FINPACK and RankEm Central copyrighted software of the Center for Farm Financial Management, University of Minnesota.

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

EXPLANATORY NOTES FOR THE FARM OPERATORS' REPORTS

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

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

Farm Income Statement

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

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

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

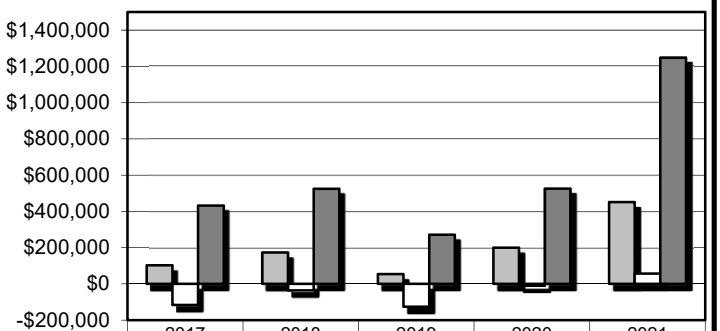
This table reports the average for the number of operators per farm, the operator's age, and the number of years farming.

Nonfarm Summary

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

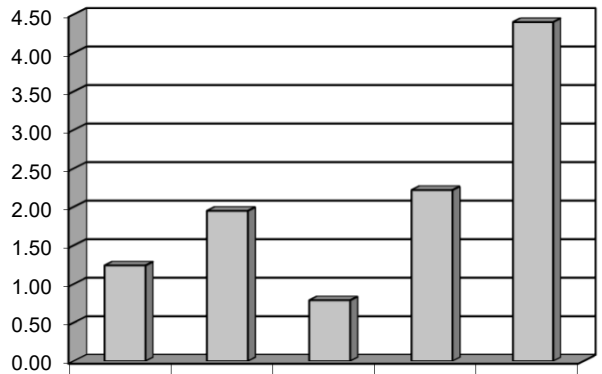
Five Year Trend of Financial Measures
Red River Valley Farm Business Management Education

Net Farm Income



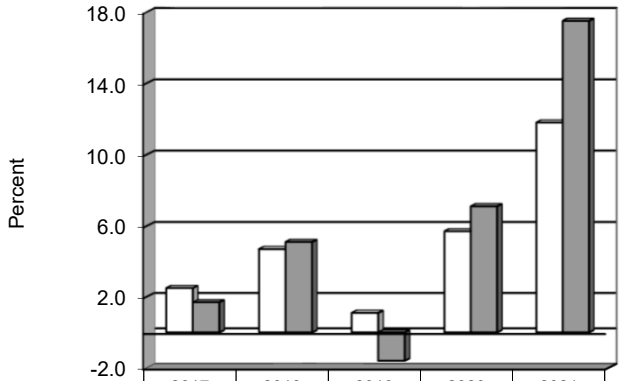
	2017	2018	2019	2020	2021
Average	102,783	173,275	53,472	199,529	451,303
Low 20%	-116,848	-36,524	-126,535	-10,912	56,422
High20%	431,827	524,352	271,005	525,459	1,248,025

Term Debt Coverage Ratio (accrual)



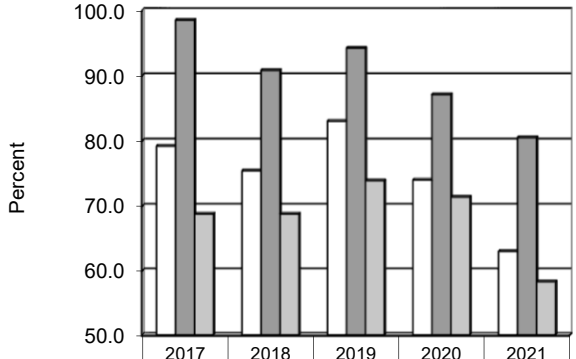
	2017	2018	2019	2020	2021
Ratio	1.24	1.95	0.79	2.22	4.40

Rate of Return (cost)



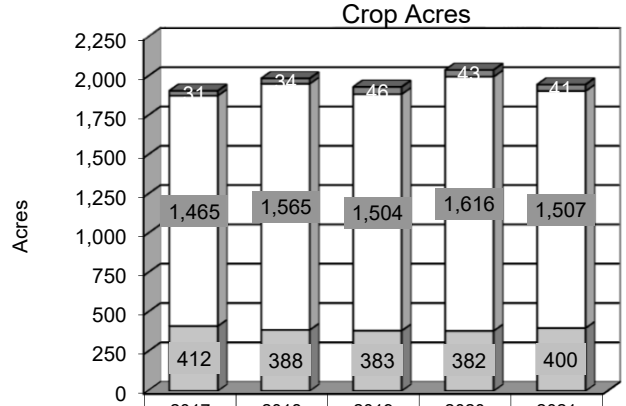
	2017	2018	2019	2020	2021
RR on Assets	2.5	4.7	1.1	5.7	11.8
RR on Equity	1.7	5.1	-1.6	7.1	17.5

Operating Expense Ratio



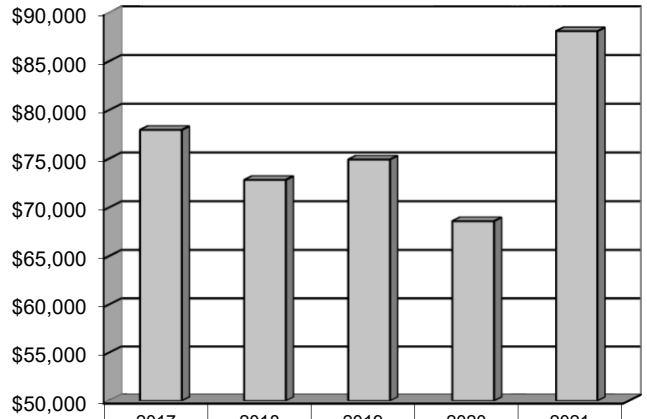
	2017	2018	2019	2020	2021
Average	79.2	75.4	83.0	74.0	63.0
Low 20%	98.5	90.8	94.2	87.1	80.5
High 20%	68.8	68.8	73.9	71.4	58.3

Crop Acres



	2017	2018	2019	2020	2021
Share Rent	31	34	46	43	41
Cash Rent	1,465	1,565	1,504	1,616	1,507
Owned	412	388	383	382	400

Apparent Family Living



	2017	2018	2019	2020	2021
Dollars	$77,967	$72,837	$74,926	$68,597	$88,095

Farm Income Statement
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2021
(Farms Sorted By Net Farm Income)

	Avg. Of All Farms	*Low 20%*	*40 - 60%*	*High 20%*
Number of farms	214	42	43	43
Cash Farm Income				
Barley	3,468	4,715	-	10,998
Beans, Black Turtle	7,883	608	10,380	25,094
Beans, Navy	6,180	-	11,217	11,458
Beans, Pinto	3,886	-	-	10,908
Beans, Small Red	2,082	-	-	10,364
Corn	357,043	185,184	293,322	829,378
Corn Silage	6,068	-	6,279	19,861
Grass Seed, Fescue	1,919	-	2,192	-
Hay, Alfalfa	4,182	8,517	4,283	4,792
Hay, Mixed	3,035	1,748	47	4,606
Oats	1,201	-	58	5,373
Peas, Field	1,799	-	-	8,952
Potatoes	27,256	-	-	114,042
Soybeans	272,102	120,798	235,808	569,758
Soybeans Seed	14,655	12,358	1,232	29,162
Sugar Beets	226,412	97,525	137,911	563,285
Sunflowers	7,080	8,056	5,672	10,864
Wheat, Durum	566	2,882	-	-
Wheat, Spring	177,452	55,412	159,105	356,946
Soybeans, Natto	2,259	-	-	3,919
Misc. crop income	18,951	8,612	967	68,252
Misc. livestock income	7,736	3,583	1,507	351
CCC market loan gain	1,261	-	-	6,277
Crop government payments	16,038	4,843	19,484	29,023
CRP payments	803	247	1,519	527
Livestock govt payments	217	160	-	-
Other government payments	75,923	46,291	63,449	139,117
Conservation govt payment	4,216	2,026	4,899	4,952
Custom work income	14,615	2,915	9,563	27,201
Patronage dividends, cash	15,739	7,092	16,796	30,218
Crop insurance income	66,760	32,692	52,741	143,758
Property insurance income	177	-	-	730
Sale of resale items	636	-	-	2,482
Livestock insurance inc	29	146	-	-
Farm rental income	12,182	6,815	4,026	28,456
Other farm income	45,130	11,944	23,534	102,963
Gross Cash Farm Income	1,406,942	625,167	1,065,993	3,174,067

Farm Income Statement (continued)
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2021
(Farms Sorted By Net Farm Income)

	Avg. Of All Farms	*Low 20%*	*40 - 60%*	*High 20%*
Number of farms	214	42	43	43
Cash Farm Expense				
Seed and plants	150,228	74,112	114,714	337,137
Fertilizer	176,263	92,230	129,127	395,290
Crop chemicals	101,369	56,587	78,938	230,930
Crop insurance	36,992	16,022	31,203	79,664
Drying expense	3,058	443	1,796	8,384
Storage	696	999	97	327
Irrigation energy	886	270	-	3,847
Packaging and supplies	103	127	-	-
Crop miscellaneous	3,361	1,903	1,215	8,721
Consultants	3,866	1,800	3,992	6,170
Feeder livestock purchase	4,096	1,257	-	2,857
Purchased feed	1,213	739	121	312
Veterinary	224	133	26	5
Supplies	153	390	27	-
Livestock leases	114	-	-	-
Interest	50,971	28,360	37,860	112,243
Fuel & oil	47,875	22,087	33,085	105,855
Repairs	102,904	53,032	74,718	217,903
Custom hire	18,714	11,284	14,638	32,033
Hired labor	58,600	21,479	39,650	155,294
Land rent	214,249	105,405	165,773	498,618
Stock/quota lease	20,082	6,037	8,060	47,353
Machinery leases	14,174	10,121	6,109	35,713
Building leases	1,796	387	3,508	3,356
Real estate taxes	12,249	3,720	6,421	31,404
Personal property taxes	237	83	-	848
Farm insurance	17,902	8,365	14,144	35,999
Utilities	10,080	5,784	8,543	19,042
Hauling and trucking	2,308	1,283	411	5,632
Marketing	1,706	216	2,604	2,916
Dues & professional fees	9,784	4,909	6,544	21,702
Purchase of resale items	4,690	320	-	20,673
Miscellaneous	15,252	10,487	17,451	27,208
Total cash expense	1,086,195	540,369	800,776	2,447,438
Net cash farm income	320,747	84,797	265,217	726,629
Inventory Changes				
Prepaids and supplies	59,769	20,462	46,710	174,284
Accounts receivable	3,432	-10,986	5,457	39,477
Hedging accounts	-10,994	-14,800	-10,536	-22,622
Other current assets	6,253	-1,482	581	157
Crops and feed	141,216	9,165	48,514	466,044
Market livestock	727	68	-7	2,602
Breeding livestock	-153	-293	-	-91
Other assets	14,146	4,258	1,861	54,228
Accounts payable	-8,373	181	-15,835	-3,490
Accrued interest	3,324	1,693	1,246	9,996
Total inventory change	209,346	8,267	77,991	720,586
Net operating profit	530,093	93,064	343,209	1,447,215
Depreciation				
Machinery and equipment	-66,783	-26,486	-45,628	-165,422
Titled vehicles	-6,503	-4,005	-5,241	-12,696
Buildings and improvements	-8,459	-4,003	-4,457	-24,119
Total depreciation	-81,745	-34,493	-55,325	-202,237
Net farm income from operations	448,347	58,571	287,883	1,244,978
Gain or loss on capital sales	2,956	-2,150	-93	3,047
Net farm income	451,303	56,422	287,791	1,248,025

Inventory Changes
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2021
(Farms Sorted By Net Farm Income)

	Avg. Of All Farms	*Low 20%*	*40 - 60%*	*High 20%*
Number of farms	214	42	43	43
Net cash farm income	320,747	84,797	265,217	726,629
Crops and Feed				
Ending inventory	746,786	214,713	472,331	1,943,962
Beginning inventory	605,569	205,548	423,817	1,477,918
Inventory change	141,216	9,165	48,514	466,044
Market Livestock				
Ending inventory	6,008	3,321	278	2,826
Beginning inventory	5,281	3,253	285	224
Inventory change	727	68	-7	2,602
Accts Receivable				
Ending inventory	93,679	36,439	80,337	217,368
Beginning inventory	90,247	47,425	74,880	177,891
Inventory change	3,432	-10,986	5,457	39,477
Prepaid Expenses and Supplies				
Ending inventory	164,355	44,189	121,995	444,478
Beginning inventory	104,587	23,727	75,286	270,194
Inventory change	59,769	20,462	46,710	174,284
Hedging Activities				
Ending inventory	15,729	6,201	8,324	57,258
Withdrawals	15,575	5,113	1,546	68,232
Beginning inventory	14,246	16,151	3,586	45,825
Deposits	28,053	9,963	16,821	102,287
Gain or loss	-10,994	-14,800	-10,536	-22,622
Other Current Assets				
Ending inventory	14,629	876	2,965	29,173
Beginning inventory	8,377	2,358	2,384	29,016
Inventory change	6,253	-1,482	581	157
Breeding Livestock				
Ending inventory	2,789	5,333	852	677
Capital sales	-	-	-	-
Beginning inventory	2,598	4,495	695	767
Capital purchases	344	1,131	157	-
Depreciation, capital adjust	-153	-293	-	-91
Other Capital Assets				
Ending inventory	355,408	142,468	207,630	901,518
Capital sales	4,081	-	4,345	4,751
Beginning inventory	330,930	130,174	193,316	832,967
Capital purchases	14,412	8,036	16,798	19,074
Depreciation, capital adjust	14,146	4,258	1,861	54,228
Accounts Payable				
Beginning inventory	43,650	36,174	27,906	84,890
Ending inventory	52,022	35,993	43,741	88,380
Inventory change	-8,373	181	-15,835	-3,490
Accrued Interest				
Beginning inventory	24,892	14,255	17,613	53,878
Ending inventory	21,569	12,562	16,367	43,882
Inventory change	3,324	1,693	1,246	9,996
Total inventory change	209,346	8,267	77,991	720,586
Net operating profit	530,093	93,064	343,209	1,447,215

Depreciation
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2021
(Farms Sorted By Net Farm Income)

	Avg. Of All Farms	*Low 20%*	*40 - 60%*	*High 20%*
Number of farms	214	42	43	43
Net operating profit	530,093	93,064	343,209	1,447,215
Machinery and Equipment				
Ending inventory	713,399	334,008	518,536	1,603,794
Capital sales	33,185	19,717	21,146	89,136
Beginning inventory	662,320	317,157	502,741	1,457,201
Capital purchases	151,047	63,054	82,569	401,151
Depreciation, capital adjust.	-66,783	-26,486	-45,628	-165,422
Titled Vehicles				
Ending inventory	65,072	39,744	41,133	123,816
Capital sales	2,686	176	1,373	7,519
Beginning inventory	60,688	38,951	40,963	113,256
Capital purchases	13,573	4,974	6,784	30,775
Depreciation, capital adjust.	-6,503	-4,005	-5,241	-12,696
Buildings and Improvements				
Ending inventory	315,445	90,522	184,532	788,297
Capital sales	1,531	-	-	-
Beginning inventory	299,611	93,448	175,982	744,774
Capital purchases	25,823	1,077	13,006	67,642
Depreciation, capital adjust.	-8,459	-4,003	-4,457	-24,119
Total depreciation, capital adj.	-81,745	-34,493	-55,325	-202,237
Net farm income from operations	448,347	58,571	287,883	1,244,978
Gain or loss on capital sales	2,956	-2,150	-93	3,047
Net farm income	451,303	56,422	287,791	1,248,025

Profitability Measures
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2021
(Farms Sorted By Net Farm Income)

	Avg. Of All Farms	*Low 20%*	*40 - 60%*	*High 20%*
Number of farms	214	42	43	43
Profitability (assets valued at cost)				
Net farm income from operations	448,347	58,571	287,883	1,244,978
Rate of return on assets	11.8 %	2.6 %	11.3 %	14.1 %
Rate of return on equity	17.5 %	1.4 %	18.0 %	20.2 %
Operating profit margin	25.9 %	5.9 %	23.2 %	31.1 %
Asset turnover rate	45.5 %	44.7 %	48.6 %	45.2 %
Farm interest expense	47,647	26,667	36,613	102,247
Value of operator lbr and mgmt.	94,710	49,436	66,244	200,260
Return on farm assets	401,284	35,803	258,253	1,146,965
Average farm assets	3,412,638	1,365,552	2,286,290	8,159,755
Return on farm equity	353,637	9,135	221,639	1,044,718
Average farm equity	2,019,483	651,387	1,229,723	5,183,258
Value of farm production	1,551,839	610,264	1,111,975	3,689,777

	Avg. Of All Farms	*Low 20%*	*40 - 60%*	*High 20%*
Number of farms	214	42	43	43
Profitability (assets valued at market)				
Net farm income from operations	457,693	91,460	335,472	1,131,818
Rate of return on assets	9.5 %	3.7 %	10.0 %	10.4 %
Rate of return on equity	14.3 %	4.2 %	15.4 %	15.6 %
Operating profit margin	26.5 %	11.3 %	27.5 %	28.0 %
Asset turnover rate	35.7 %	32.6 %	36.5 %	37.0 %
Farm interest expense	47,647	26,667	36,613	102,247
Value of operator lbr and mgmt.	94,710	49,436	66,244	200,260
Return on farm assets	410,629	68,692	305,841	1,033,805
Average farm assets	4,343,535	1,873,781	3,045,746	9,966,113
Return on farm equity	362,982	42,025	269,228	931,557
Average farm equity	2,546,611	998,510	1,753,356	5,978,109
Value of farm production	1,551,839	610,264	1,111,975	3,689,777

Liquidity & Repayment Capacity Measures
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2021
(Farms Sorted By Net Farm Income)

	Avg. Of All Farms	*Low 20%*	*40 - 60%*	*High 20%*
Number of farms	214	42	43	43
Liquidity				
Current ratio	2.25	1.37	2.00	2.66
Working capital	624,438	95,148	388,483	1,779,495
Working capital to gross inc	40.0 %	15.5 %	34.9 %	47.9 %
Current assets	1,124,583	354,220	776,460	2,854,309
Current liabilities	500,145	259,072	387,977	1,074,813
Gross revenues (accrual)	1,561,838	612,579	1,112,097	3,713,618
Repayment capacity				
Net farm income from operations	448,347	58,571	287,883	1,244,978
Depreciation	81,745	34,493	55,325	202,237
Personal income	37,983	43,627	31,875	39,119
Family living/owner withdrawals	-83,165	-68,085	-76,077	-113,957
Cash discrepancy	-23	-105	-141	310
Payments on personal debt	-6,083	-7,317	-4,721	-6,624
Income taxes paid	-22,433	-9,026	-12,893	-60,038
Interest on term debt	36,111	19,672	32,491	73,359
Capital debt repayment capacity	492,482	71,830	313,743	1,379,383
Scheduled term debt payments	-113,073	-53,322	-96,799	-224,063
Capital debt repayment margin	379,409	18,507	216,943	1,155,320
Cash replacement allowance	-57,481	-26,807	-36,934	-140,985
Replacement margin	321,928	-8,300	180,009	1,014,335
Term debt coverage ratio	4.36	1.35	3.24	6.16
Replacement coverage ratio	2.89	0.90	2.35	3.78

Balance Sheet at Cost Values
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2021
(Farms Sorted By Net Farm Income)

	Avg. Of All Farms	*Low 20%*	*40 - 60%*	*High 20%*
Number of farms	214	42	43	43
Assets				
Current Farm Assets				
Cash and checking balance	83,397	48,480	90,229	159,243
Prepaid expenses & supplies	164,355	44,189	121,995	444,478
Growing crops	317	551	666	244
Accounts receivable	93,679	36,439	80,337	217,368
Hedging accounts	15,729	6,201	8,324	57,258
Crops held for sale or feed	746,786	214,713	472,331	1,943,962
Crops under government loan	-	-	-	-
Market livestock held for sale	6,008	3,321	278	2,826
Other current assets	14,313	325	2,299	28,929
Total current farm assets	1,124,583	354,220	776,460	2,854,309
Intermediate Farm Assets				
Breeding livestock	2,789	5,333	852	677
Machinery and equipment	713,399	334,008	518,536	1,603,794
Titled vehicles	65,072	39,744	41,133	123,816
Other intermediate assets	266,486	112,466	145,344	735,697
Total intermediate farm assets	1,047,745	491,551	705,866	2,463,983
Long Term Farm Assets				
Farm land	1,034,410	425,431	657,191	2,460,077
Buildings and improvements	315,445	90,522	184,532	788,297
Other long-term assets	88,922	30,003	62,286	165,821
Total long-term farm assets	1,438,776	545,956	904,009	3,414,196
Total Farm Assets	3,611,104	1,391,727	2,386,335	8,732,488
Total Nonfarm Assets	393,247	254,529	290,415	692,873
Total Assets	4,004,351	1,646,256	2,676,750	9,425,361
Liabilities				
Current Farm Liabilities				
Accrued interest	21,569	12,562	16,367	43,882
Accounts payable	52,022	35,993	43,741	88,380
Current notes	342,850	170,735	258,130	772,703
Government crop loans	-	-	-	-
Principal due on term debt	83,704	39,782	69,740	169,848
Total current farm liabilities	500,145	259,072	387,977	1,074,813
Total intermediate farm liabs	203,268	127,394	189,928	412,798
Total long term farm liabilities	688,565	349,065	459,951	1,504,790
Total farm liabilities	1,391,979	735,531	1,037,855	2,992,401
Total nonfarm liabilities	96,208	99,683	73,756	147,706
Total liabilities	1,488,187	835,214	1,111,611	3,140,107
Net worth (farm and nonfarm)	2,516,164	811,042	1,565,138	6,285,254
Net worth change	440,145	18,797	267,415	1,200,016
Percent net worth change	21 %	2 %	21 %	24 %
Ratio Analysis				
Current farm liabilities / assets	44 %	73 %	50 %	38 %
Intermediate farm liab. / assets	19 %	26 %	27 %	17 %
Long term farm liab. / assets	48 %	64 %	51 %	44 %
Total debt to asset ratio	37 %	51 %	42 %	33 %

Balance Sheet at Market Values
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2021
(Farms Sorted By Net Farm Income)

	Avg. Of All Farms	*Low 20%*	*40 - 60%*	*High 20%*
Number of farms	214	42	43	43
Assets				
Current Farm Assets				
Cash and checking balance	83,397	48,480	90,229	159,243
Prepaid expenses & supplies	164,355	44,189	121,995	444,478
Growing crops	317	551	666	244
Accounts receivable	93,679	36,439	80,337	217,368
Hedging accounts	15,729	6,201	8,324	57,258
Crops held for sale or feed	746,786	214,713	472,331	1,943,962
Crops under government loan	-	-	-	-
Market livestock held for sale	6,008	3,321	278	2,826
Other current assets	14,313	325	2,299	28,929
Total current farm assets	1,124,583	354,220	776,460	2,854,309
Intermediate Farm Assets				
Breeding livestock	2,876	5,333	887	677
Machinery and equipment	952,878	434,993	737,060	2,133,783
Titled vehicles	83,196	46,185	54,737	158,702
Other intermediate assets	357,851	196,532	216,126	875,258
Total intermediate farm assets	1,396,801	683,043	1,008,809	3,168,420
Long Term Farm Assets				
Farm land	1,578,947	739,865	1,106,325	3,407,084
Buildings and improvements	368,806	105,888	224,473	920,471
Other long-term assets	110,454	34,902	69,404	238,723
Total long-term farm assets	2,058,207	880,655	1,400,202	4,566,277
Total Farm Assets	4,579,592	1,917,918	3,185,472	10,589,006
Total Nonfarm Assets	483,088	334,636	364,673	848,401
Total Assets	5,062,680	2,252,554	3,550,145	11,437,407
Liabilities				
Current Farm Liabilities				
Accrued interest	21,569	12,562	16,367	43,882
Accounts payable	52,022	35,993	43,741	88,380
Current notes	342,850	170,735	258,130	772,703
Government crop loans	-	-	-	-
Principal due on term debt	83,704	39,782	69,740	169,848
Total current farm liabilities	500,145	259,072	387,977	1,074,813
Total intermediate farm liabs	203,268	127,394	189,928	412,798
Total long term farm liabilities	688,565	349,065	459,951	1,504,790
Total farm liabilities	1,391,979	735,531	1,037,855	2,992,401
Total nonfarm liabilities	96,208	99,683	73,756	147,706
Total liabs excluding deferreds	1,488,187	835,214	1,111,611	3,140,107
Total deferred liabilities	452,088	175,681	262,367	1,151,251
Total liabilities	1,940,275	1,010,895	1,373,978	4,291,358
Retained earnings	2,516,164	811,042	1,565,138	6,285,254
Market valuation equity	606,241	430,616	611,028	860,795
Net worth (farm and nonfarm)	3,122,405	1,241,658	2,176,167	7,146,048
Net worth excluding deferreds	3,574,493	1,417,339	2,438,533	8,297,300
Net worth change	462,938	66,994	330,349	1,104,648
Percent net worth change	17 %	6 %	18 %	18 %
Ratio Analysis				
Current farm liabilities / assets	44 %	73 %	50 %	38 %
Intermediate farm liab. / assets	15 %	19 %	19 %	13 %
Long term farm liab. / assets	33 %	40 %	33 %	33 %
Total debt to asset ratio	38 %	45 %	39 %	38 %
Debt to assets excl deferreds	29 %	37 %	31 %	27 %

Statement Of Cash Flows
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2021
(Farms Sorted By Net Farm Income)

	Avg. Of All Farms	*Low 20%*	*40 - 60%*	*High 20%*
Number of farms	214	42	43	43
Beginning cash (farm & nonfarm)	104,641	64,226	98,653	222,255
Cash Provided By Operating Activities				
Gross cash farm income	1,406,942	625,167	1,065,993	3,174,067
Total cash farm expense	-1,086,195	-540,369	-800,776	-2,447,438
Net cash from hedging transactions	-12,477	-4,850	-15,275	-34,055
Cash provided by operating	308,269	79,948	249,943	692,575
Cash Provided By Investing Activities				
Sale of breeding livestock	-	-	-	-
Sale of machinery & equipment	32,794	17,566	20,364	86,493
Sale of titled vehicles	2,738	177	1,784	7,438
Sale of farm land	9,532	-	-	15,270
Sale of farm buildings	1,531	-	-	-
Sale of other farm assets	4,359	-	4,624	4,751
Sale of nonfarm assets	7,595	4,488	8,378	5,259
Purchase of breeding livestock	-344	-1,131	-157	-
Purchase of machinery & equip.	-151,047	-63,054	-82,569	-401,151
Purchase of titled vehicles	-13,573	-4,974	-6,784	-30,775
Purchase of farm land	-104,096	-20,952	-54,840	-240,878
Purchase of farm buildings	-25,823	-1,077	-13,006	-67,642
Purchase of other farm assets	-14,412	-8,036	-16,798	-19,074
Purchase of nonfarm assets	-35,418	-21,986	-12,653	-88,376
Cash provided by investing	-286,164	-98,979	-151,659	-728,686
Cash Provided By Financing Activities				
Money borrowed	606,026	390,824	302,370	1,471,636
Principal payments	-608,709	-340,229	-357,470	-1,418,872
Personal income	37,983	43,627	31,875	39,119
Family living/owner withdrawals	-83,165	-68,085	-76,077	-113,957
Income and social security tax	-19,588	-9,002	-11,335	-50,034
Capital contributions	1,378	-	4,616	1,608
Capital distributions	-2,344	-	-5,291	-1,524
Dividends paid	-	-	-	-
Cash gifts and inheritances	47,215	2,093	20,564	78,033
Gifts given	-1,107	-1,064	-	-3,117
Other cash flows	-	-	-	-
Cash provided by financing	-22,312	18,164	-90,747	2,891
Net change in cash balance	-206	-867	7,537	-33,220
Ending cash (farm & nonfarm)	104,412	63,253	106,049	189,344
Discrepancy	23	105	141	-310

Financial Standards Measures
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2021
(Farms Sorted By Net Farm Income)

	Avg. Of All Farms	*Low 20%*	*40 - 60%*	*High 20%*
Number of farms	214	42	43	43
Liquidity				
Current ratio	2.25	1.37	2.00	2.66
Working capital	624,438	95,148	388,483	1,779,495
Working capital to gross inc	40.0 %	15.5 %	34.9 %	47.9 %
Solvency (market)				
Farm debt to asset ratio	40 %	47 %	40 %	39 %
Farm equity to asset ratio	60 %	53 %	60 %	61 %
Farm debt to equity ratio	0.66	0.88	0.68	0.63
Profitability (cost)				
Rate of return on farm assets	11.8 %	2.6 %	11.3 %	14.1 %
Rate of return on farm equity	17.5 %	1.4 %	18.0 %	20.2 %
Operating profit margin	25.9 %	5.9 %	23.2 %	31.1 %
Net farm income	451,303	56,422	287,791	1,248,025
EBITDA	577,739	119,731	379,822	1,549,463
Repayment Capacity				
Capital debt repayment capacity	492,482	71,830	313,743	1,379,383
Capital debt repayment margin	379,409	18,507	216,943	1,155,320
Replacement margin	321,928	-8,300	180,009	1,014,335
Term debt coverage ratio	4.36	1.35	3.24	6.16
Replacement coverage ratio	2.89	0.90	2.35	3.78
Efficiency				
Asset turnover rate (cost)	45.5 %	44.7 %	48.6 %	45.2 %
Operating expense ratio	63.0 %	80.5 %	65.8 %	58.3 %
Depreciation expense ratio	5.2 %	5.6 %	5.0 %	5.4 %
Interest expense ratio	3.1 %	4.4 %	3.3 %	2.8 %
Net farm income ratio	28.7 %	9.6 %	25.9 %	33.5 %

Crop Production and Marketing Summary
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2021
(Farms Sorted By Net Farm Income)

	Avg. Of All Farms	*Low 20%*	*40 - 60%*	*High 20%*
Number of farms	214	42	43	43
Acreage Summary				
Total acres owned	442	196	341	925
Total crop acres	1,948	983	1,475	4,201
Crop acres owned	400	185	293	841
Crop acres cash rented	1,507	763	1,134	3,319
Crop acres share rented	41	35	48	41
Total pasture acres	2	10	-	-
Percent crop acres owned	21 %	19 %	20 %	20 %
Mach invest/crop acre cost	380	370	357	393
Mach invest/crop acre market	503	469	501	518
Average Price Received (Cash Sales Only)				
Soybeans per bushel	11.59	11.01	11.73	11.67
Corn per bushel	4.63	5.08	4.81	4.51
Wheat, Spring per bushel	6.98	7.61	6.86	6.93
Soybeans Seed per bushel	13.06	-	-	-
Hay per ton	124.30	-	-	-
Beans, Navy per cwt	32.40	-	-	-
Hay, Alfalfa per ton	155.05	-	-	-
Barley per bushel	6.12	-	-	-
Sunflowers per cwt	23.53	-	-	-
Beans, Pinto per cwt	33.83	-	-	-
Soybeans, Food per bushel	14.52	-	-	-
Canola per cwt	22.61	-	-	-
Average Yield Per Acre				
Soybeans (bushel)	34.37	29.52	36.10	35.85
Corn (bushel)	153.59	132.65	150.24	156.27
Wheat, Spring (bushel)	55.25	56.74	53.65	56.49
Sugar Beets (ton)	28.31	27.25	29.12	28.33
Soybeans Seed (bushel)	33.16	29.47	36.68	36.09
Hay, Alfalfa (ton)	2.77	2.14	-	2.61
Soybeans, Food (bushel)	35.75	30.99	-	37.39
Beans, Navy (cwt)	16.95	-	-	-
Potatoes (cwt)	368.89	-	-	398.87
Sunflowers (cwt)	24.01	-	-	-
Corn Silage (ton)	19.57	-	-	-
Beans, Black Turtle (cwt)	16.86	-	-	-
Canola (cwt)	17.37	-	-	-
Beans, Pinto (cwt)	12.80	-	-	-
Barley (bushel)	75.81	-	-	-

Operator and Labor Information
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2021
(Farms Sorted By Net Farm Income)

	Avg. Of All Farms	*Low 20%*	*40 - 60%*	*High 20%*
Number of farms	214	42	43	43
Operator Information				
Average number of operators	1.1	0.9	1.0	1.5
Average age of operators	47.6	43.3	47.6	51.5
Average number of years farming	24.0	18.6	23.8	29.8
Results Per Operator				
Working capital	554,250	100,281	371,217	1,177,204
Total assets (market)	4,493,627	2,374,084	3,392,360	7,566,284
Total liabilities	1,722,185	1,065,436	1,312,912	2,838,898
Net worth (market)	2,771,442	1,308,648	2,079,448	4,727,386
Net worth excl deferred liabs	3,172,715	1,493,808	2,330,154	5,488,983
Gross farm income	1,386,285	645,630	1,062,670	2,456,701
Total farm expense	988,333	583,898	787,582	1,633,100
Net farm income from operations	397,953	61,731	275,088	823,601
Net nonfarm income	33,714	45,981	30,459	25,879
Family living & tax withdrawals	93,750	81,382	85,151	114,900
Total acres owned	392.8	206.3	325.5	611.6
Total crop acres	1,729.4	1,035.8	1,409.8	2,779.1
Crop acres owned	354.7	194.8	279.6	556.6
Crop acres cash rented	1,337.9	803.7	1,083.9	2,195.7
Crop acres share rented	36.7	37.3	46.3	26.9
Total pasture acres	1.7	10.0	-	-
Labor Analysis				
Number of farms	214	42	43	43
Total unpaid labor hours	2,073	1,545	1,844	3,067
Total hired labor hours	2,295	874	1,308	6,233
Total labor hours per farm	4,368	2,419	3,152	9,300
Unpaid hours per operator	1,840	1,628	1,762	2,029
Value of farm production / hour	355.27	252.28	352.80	396.75
Net farm income / unpaid hour	216.28	37.92	156.10	405.87
Average hourly hired labor wage	28.81	32.62	30.60	28.39
Partnerships & LLCs				
Number of farms	19	2	2	11
Number of operators	2.2	-	-	2.5
Owner withdrawals per farm	-	-	-	-
Withdrawals per operator	-	-	-	-
Corporations				
Number of farms	15	2	5	4
Number of operators	1.5	-	1.2	-

Household and Personal Expenses
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2021
(Farms Sorted By Net Farm Income)

	Avg. Of All Farms	*Low 20%*	*40 - 60%*
Number of farms	39	9	10
Average family size	3.2	3.2	3.0
Family Living Expenses			
Food and meals expense	12,245	9,247	13,181
Medical care	3,981	2,475	2,619
Health insurance	4,858	4,511	4,011
Cash donations	3,212	3,272	3,234
Household supplies	5,472	6,430	5,041
Clothing	2,933	2,236	2,869
Personal care	2,594	2,763	1,255
Child / Dependent care	474	1,910	130
Alimony and child support	2,836	-	-
Gifts	2,809	852	2,939
Education	1,409	853	675
Recreation	7,086	6,366	5,430
Utilities (household share)	3,632	3,985	3,548
Personal vehicle operating exp	5,157	6,972	4,417
Household real estate taxes	1,580	395	1,243
Dwelling rent	278	1,206	-
Household repairs	6,367	4,977	6,700
Personal interest	4,120	4,618	3,821
Disability / Long term care ins	630	-	-
Life insurance payments	3,056	784	5,878
Personal property insurance	1,294	486	991
Miscellaneous	12,028	21,010	17,285
Total cash family living expense	88,053	85,349	85,266
Family living from the farm	41	-	-
Total family living	88,095	85,349	85,266
Other Nonfarm Expenditures			
Income taxes	20,892	13,565	13,682
Furnishing & appliance purchases	-	-	-
Nonfarm vehicle purchases	5,456	2,430	5,150
Nonfarm real estate purchases	-2,550	4,013	477
Other nonfarm capital purchases	-183	-165	-
Nonfarm savings & investments	14,063	17,920	5,015
Total other nonfarm expenditures	37,679	37,764	24,324
Total cash family living investment & nonfarm capital purch	125,732	123,113	109,590

Financial Summary
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2021
(Farms Sorted By Gross Farm Income)

	Avg. Of All Farms	*100,001 - 250,000*	*250,001 - 500,000*	*500,001 - 1,000,000*	*1,000,001- 2,000,000*	*Over 2,000,000*
Number of farms	214	18	29	56	61	48
Income Statement						
Gross cash farm income	1,406,942	180,433	379,953	729,354	1,386,088	3,359,977
Total cash farm expense	1,086,195	138,605	291,347	536,894	1,083,892	2,608,273
Net cash farm income	320,747	41,828	88,607	192,461	302,196	751,704
Inventory change	209,346	47,197	94,513	118,208	195,798	470,929
Depreciation	-81,745	-8,301	-21,466	-42,306	-76,254	-201,919
Net farm income from operations	448,347	80,723	161,654	268,363	421,740	1,020,713
Gain or loss on capital sales	2,956	104	12,160	2,399	2,664	-392
Average net farm income	451,303	80,828	173,814	270,762	424,404	1,020,321
Median net farm income	301,770	82,431	146,350	250,053	393,337	829,694
Profitability (cost)						
Rate of return on assets	11.8 %	16.9 %	11.5 %	11.4 %	11.6 %	11.9 %
Rate of return on equity	17.5 %	26.6 %	17.0 %	15.5 %	18.1 %	17.8 %
Operating profit margin	25.9 %	30.5 %	27.5 %	28.2 %	25.5 %	25.2 %
Asset turnover rate	45.5 %	55.5 %	41.7 %	40.5 %	45.6 %	47.0 %
Profitability (market)						
Rate of return on assets	9.5 %	23.6 %	7.6 %	9.5 %	9.9 %	9.0 %
Rate of return on equity	14.3 %	37.5 %	11.0 %	13.0 %	15.1 %	14.1 %
Operating profit margin	26.5 %	56.4 %	23.9 %	31.8 %	28.2 %	23.7 %
Asset turnover rate	35.7 %	41.8 %	31.8 %	29.9 %	35.3 %	38.1 %
Liquidity & Repayment (end of year)						
Current assets	1,124,583	149,908	367,212	674,176	1,062,070	2,597,050
Current liabilities	500,145	56,538	136,802	237,669	501,044	1,211,699
Current ratio	2.25	2.65	2.68	2.84	2.12	2.14
Working capital	624,438	93,370	230,411	436,507	561,026	1,385,351
Change in working capital	248,976	42,397	102,700	163,569	230,515	546,716
Working capital to gross inc	40.0 %	43.4 %	48.8 %	53.0 %	36.8 %	37.5 %
Term debt coverage ratio	4.36	7.04	4.78	4.21	3.73	4.70
Replacement coverage ratio	2.89	4.46	2.60	2.79	2.63	3.06
Term debt to EBITDA	1.47	1.02	1.55	1.22	1.69	1.43
Solvency (end of year at cost)						
Number of farms	214	18	29	56	61	48
Total assets	4,004,351	604,517	1,519,868	2,473,301	3,858,001	8,913,020
Total liabilities	1,488,187	257,268	509,262	712,667	1,574,264	3,397,179
Net worth	2,516,164	347,249	1,010,606	1,760,634	2,283,737	5,515,841
Net worth change	440,145	84,962	241,177	306,627	383,731	936,563
Farm debt to asset ratio	39 %	41 %	34 %	30 %	43 %	39 %
Total debt to asset ratio	37 %	43 %	34 %	29 %	41 %	38 %
Change in earned net worth %	21 %	32 %	31 %	21 %	20 %	20 %
Solvency (end of year at market)						
Number of farms	214	18	29	56	61	48
Total assets	5,062,680	811,133	1,920,188	3,330,811	4,961,736	10,908,969
Total liabilities	1,940,275	312,151	639,531	972,671	1,968,836	4,508,459
Net worth	3,122,405	498,982	1,280,657	2,358,140	2,992,900	6,400,509
Total net worth change	462,938	144,363	232,460	358,347	435,056	895,661
Farm debt to asset ratio	40 %	39 %	34 %	31 %	41 %	43 %
Total debt to asset ratio	38 %	38 %	33 %	29 %	40 %	41 %
Change in total net worth %	17 %	41 %	22 %	18 %	17 %	16 %
Nonfarm Information						
Net nonfarm income	37,983	53,215	41,642	41,103	27,271	39,332
Farms reporting living expenses	39	5	7	9	12	6
Total family living expense	88,095	59,585	89,225	57,399	86,006	160,754
Total living, invest, cap. purch	125,732	93,916	111,811	85,115	141,085	198,709
Crop Acres						
Total crop acres	1,948	269	677	1,091	2,077	4,256
Total crop acres owned	400	61	146	316	412	779
Total crop acres cash rented	1,507	162	496	707	1,640	3,443
Total crop acres share rented	41	46	36	68	26	34
Machinery value per crop acre	503	421	550	548	460	514

Financial Summary
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2021
(Farms Sorted By Age of Operator)

	Avg. Of All Farms	*Less Than 31*	*31 - 40*	*41 - 50*	*51 - 60*	*Over 60*
Number of farms	214	28	50	42	42	52
Income Statement						
Gross cash farm income	1,406,942	632,020	1,285,819	1,578,367	1,870,881	1,427,492
Total cash farm expense	1,086,195	483,618	947,878	1,192,945	1,510,226	1,114,950
Net cash farm income	320,747	148,402	337,942	385,421	360,655	312,543
Inventory change	209,346	105,647	87,556	177,790	402,736	251,578
Depreciation	-81,745	-19,342	-70,066	-83,718	-119,016	-94,880
Net farm income from operations	448,347	234,707	355,431	479,493	644,376	469,241
Gain or loss on capital sales	2,956	435	1,505	10,485	5,105	-2,109
Average net farm income	451,303	235,142	356,936	489,978	649,481	467,132
Median net farm income	301,770	201,856	224,706	336,512	435,103	315,631
Profitability (cost)						
Rate of return on assets	11.8 %	20.6 %	14.2 %	10.5 %	12.0 %	10.2 %
Rate of return on equity	17.5 %	37.0 %	25.5 %	15.4 %	18.1 %	13.7 %
Operating profit margin	25.9 %	29.0 %	23.5 %	24.5 %	26.8 %	27.2 %
Asset turnover rate	45.5 %	71.0 %	60.3 %	42.8 %	44.9 %	37.4 %
Profitability (market)						
Rate of return on assets	9.5 %	18.0 %	14.5 %	8.7 %	8.9 %	7.5 %
Rate of return on equity	14.3 %	31.5 %	28.2 %	13.6 %	13.2 %	10.1 %
Operating profit margin	26.5 %	29.2 %	26.8 %	24.8 %	25.9 %	27.6 %
Asset turnover rate	35.7 %	61.6 %	53.8 %	35.3 %	34.2 %	27.3 %
Liquidity & Repayment (end of year)						
Current assets	1,124,583	387,689	778,619	1,342,407	1,613,720	1,283,022
Current liabilities	500,145	128,052	430,354	603,949	680,916	537,760
Current ratio	2.25	3.03	1.81	2.22	2.37	2.39
Working capital	624,438	259,638	348,265	738,459	932,803	745,262
Change in working capital	248,976	127,714	216,247	183,894	382,372	290,565
Working capital to gross inc	40.0 %	37.0 %	25.8 %	43.4 %	42.8 %	46.2 %
Term debt coverage ratio	4.36	6.61	4.39	3.98	4.32	4.32
Replacement coverage ratio	2.89	5.58	3.33	2.81	2.66	2.61
Term debt to EBITDA	1.47	1.16	1.40	1.57	1.51	1.47
Solvency (end of year at cost)						
Number of farms	214	28	50	42	42	52
Total assets	4,004,351	1,295,771	2,619,701	4,674,263	5,581,485	4,979,291
Total liabilities	1,488,187	600,202	1,249,936	1,680,187	2,141,748	1,512,466
Net worth	2,516,164	695,570	1,369,764	2,994,076	3,439,736	3,466,825
Net worth change	440,145	263,227	312,430	480,888	607,168	490,401
Farm debt to asset ratio	39 %	46 %	48 %	37 %	40 %	33 %
Total debt to asset ratio	37 %	46 %	48 %	36 %	38 %	30 %
Change in earned net worth %	21 %	61 %	30 %	19 %	21 %	16 %
Solvency (end of year at market)						
Number of farms	214	28	50	42	42	52
Total assets	5,062,680	1,493,826	2,968,624	5,682,776	7,228,700	6,747,560
Total liabilities	1,940,275	673,154	1,479,070	2,237,161	2,831,790	2,106,173
Net worth	3,122,405	820,672	1,489,554	3,445,615	4,396,910	4,641,387
Total net worth change	462,938	269,296	360,118	511,116	596,733	519,092
Farm debt to asset ratio	40 %	46 %	51 %	41 %	40 %	33 %
Total debt to asset ratio	38 %	45 %	50 %	39 %	39 %	31 %
Change in total net worth %	17 %	49 %	32 %	17 %	16 %	13 %
Nonfarm Information						
Net nonfarm income	37,983	37,676	48,098	45,478	16,250	39,922
Farms reporting living expenses	39	5	6	8	5	15
Total family living expense	88,095	47,614	93,567	91,294	150,151	77,007
Total living, invest, cap. purch	125,732	136,644	111,233	104,491	204,159	113,081
Crop Acres						
Total crop acres	1,948	898	1,547	2,195	2,988	1,861
Total crop acres owned	400	107	146	360	671	614
Total crop acres cash rented	1,507	750	1,381	1,757	2,290	1,203
Total crop acres share rented	41	40	20	79	27	45
Machinery value per crop acre	503	253	418	471	483	693

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 3, 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.

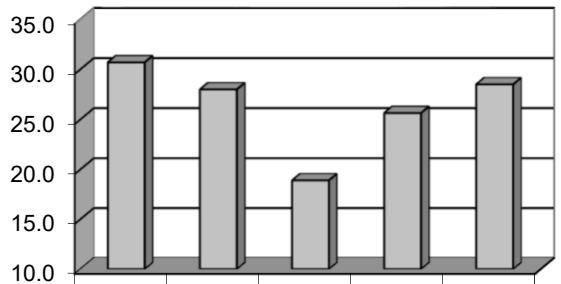
"Total direct expense per unit" and "Total dir & ovhd exp per unit" are calculated by dividing "Total direct expense per acre" and "Total dir & ovhd expenses per acre," respectively, by "Yield per acre." “With labor & management” is the breakeven yield after direct, overhead and a labor and management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

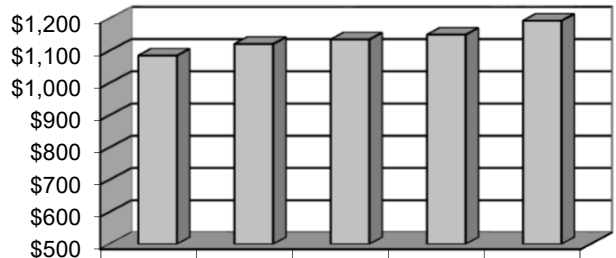
Five Year Crop History of
Yields and Cost of Production
Red River Valley Farm Business Management Education

Sugar Beet Yields



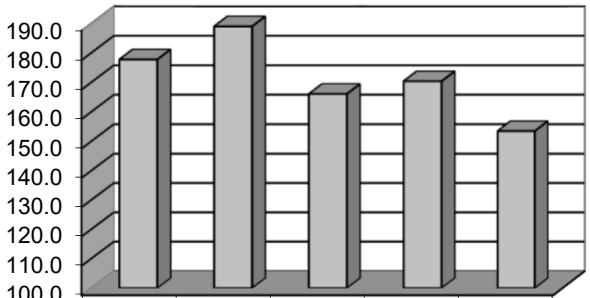
	2017	2018	2019	2020	2021
Tons	30.7	28.0	18.9	25.6	28.5

Sugar Beet Total Listed Cost (cash rented land)



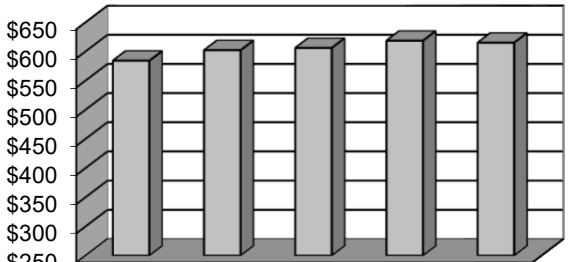
	2017	2018	2019	2020	2021
Dollars	$1,085	$1,121	$1,135	$1,150	$1,193

Corn Yields



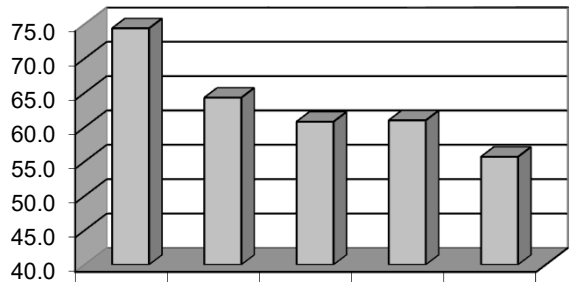
	2017	2018	2019	2020	2021
Bu.	177.8	189.0	166.1	170.4	153.5

Corn Total Listed Cost (cash rented land)



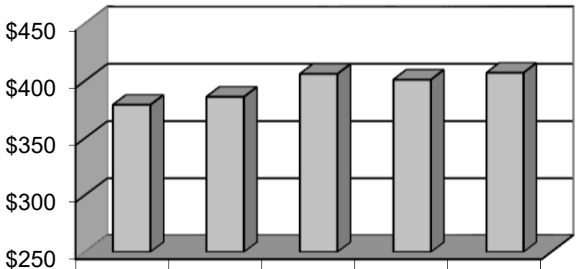
	2017	2018	2019	2020	2021
Dollars	$584	$602	$606	$618	$615

Spring Wheat Yields



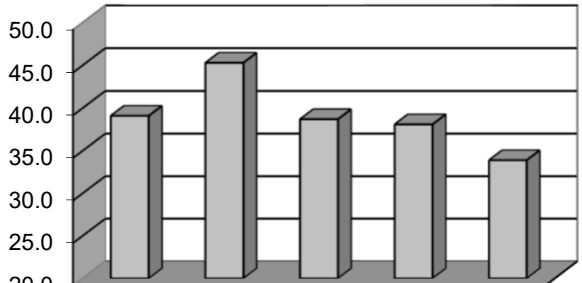
	2017	2018	2019	2020	2021
Bu.	74.4	64.3	60.8	61.0	55.7

Spring Wheat Total Listed Cost (cash rented land)



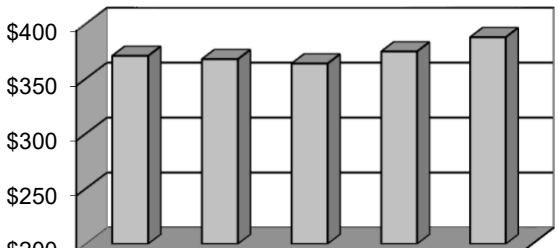
	2017	2018	2019	2020	2021
Dollars	$379	$386	$406	$401	$407

Soybeans Yields



	2017	2018	2019	2020	2021
Bu.	39.1	45.3	38.7	38.1	33.9

Soybeans Total Listed Cost (cash rented land)



	2017	2018	2019	2020	2021
Dollars	$371	$368	$364	$375	$388

Crop Enterprise Analysis
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2021
(Farms Sorted By Return to Overhead)

Barley on Cash Rent

	Avg. Of All Farms
Number of farms	5
Acres	219.98
Yield per acre (bu.)	76.23
Operators share of yield %	100.00
Value per bu.	6.73
Total product return per acre	513.31
Hedging gains/losses per acre	1.45
Other crop income per acre	6.03
Gross return per acre	520.79
Direct Expenses	
Seed and plants	16.78
Fertilizer	64.93
Crop chemicals	23.63
Crop insurance	9.95
Fuel & oil	20.15
Repairs	39.49
Custom hire	4.26
Land rent	132.62
Marketing	0.06
Operating interest	3.29
Miscellaneous	3.28
Total direct expenses per acre	318.44
Return over direct exp per acre	202.35
Overhead Expenses	
Custom hire	0.34
Hired labor	14.43
Machinery leases	2.38
Farm insurance	6.80
Utilities	5.34
Dues & professional fees	4.67
Interest	5.74
Mach & bldg depreciation	17.54
Miscellaneous	5.12
Total overhead expenses per acre	62.35
Total dir & ovhd expenses per acre	380.79
Net return per acre	140.00
Government payments	7.08
Net return with govt pmts	147.07
Labor & management charge	39.60
Net return over lbr & mgt	107.47
Cost of Production	
Total direct expense per bu.	4.18
Total dir & ovhd exp per bu.	5.00
Less govt & other income	4.80
With labor & management	5.32
Net value per unit	6.75
Machinery cost per acre	88.15
Est. labor hours per acre	1.92

Crop Enterprise Analysis
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2021
(Farms Sorted By Return to Overhead)

Beans, Navy on Owned Land

	Avg. Of All Farms
Number of farms	5
Acres	136.95
Yield per acre (cwt.)	22.04
Operators share of yield %	100.00
Value per cwt.	31.54
Total product return per acre	694.99
Crop insurance per acre	37.52
Gross return per acre	732.51
Direct Expenses	
Seed and plants	64.97
Fertilizer	52.56
Crop chemicals	79.52
Crop insurance	32.21
Fuel & oil	25.13
Repairs	34.15
Hired labor	1.17
Operating interest	7.69
Total direct expenses per acre	297.40
Return over direct exp per acre	435.11
Overhead Expenses	
Hired labor	16.01
Machinery leases	2.41
Building leases	1.06
RE & pers. property taxes	26.09
Farm insurance	7.44
Utilities	2.53
Dues & professional fees	4.25
Interest	35.51
Mach & bldg depreciation	16.99
Miscellaneous	2.38
Total overhead expenses per acre	114.66
Total dir & ovhd expenses per acre	412.05
Net return per acre	320.45
Government payments	-
Net return with govt pmts	320.45
Labor & management charge	30.19
Net return over lbr & mgt	290.27
Cost of Production	
Total direct expense per cwt.	13.49
Total dir & ovhd exp per cwt.	18.70
Less govt & other income	17.00
With labor & management	18.37
Net value per unit	31.54
Machinery cost per acre	74.55
Est. labor hours per acre	1.81

Crop Enterprise Analysis
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2021
(Farms Sorted By Return to Overhead)

Beans, Navy on Cash Rent

	Avg. Of All Farms
Number of farms	6
Acres	241.73
Yield per acre (cwt.)	17.11
Operators share of yield %	100.00
Value per cwt.	31.63
Total product return per acre	541.09
Crop insurance per acre	68.07
Gross return per acre	609.16
Direct Expenses	
Seed and plants	66.50
Fertilizer	62.53
Crop chemicals	66.41
Crop insurance	34.99
Fuel & oil	27.14
Repairs	33.46
Hired labor	0.75
Land rent	171.61
Operating interest	8.33
Total direct expenses per acre	471.74
Return over direct exp per acre	137.42
Overhead Expenses	
Hired labor	17.91
Machinery leases	1.44
Building leases	2.11
Farm insurance	7.48
Utilities	2.80
Dues & professional fees	5.12
Interest	7.23
Mach & bldg depreciation	19.20
Miscellaneous	1.74
Total overhead expenses per acre	65.04
Total dir & ovhd expenses per acre	536.78
Net return per acre	72.38
Government payments	-
Net return with govt pmts	72.38
Labor & management charge	40.06
Net return over lbr & mgt	32.32
Cost of Production	
Total direct expense per cwt.	27.57
Total dir & ovhd exp per cwt.	31.38
Less govt & other income	27.40
With labor & management	29.74
Net value per unit	31.63
Machinery cost per acre	87.73
Est. labor hours per acre	1.92

Crop Enterprise Analysis
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2021
(Farms Sorted By Return to Overhead)

Beans, Pinto on Cash Rent

	Avg. Of All Farms
Number of farms	5
Acres	230.44
Yield per acre (cwt.)	7.64
Operators share of yield %	100.00
Value per cwt.	32.16
Total product return per acre	245.84
Crop insurance per acre	233.26
Gross return per acre	479.10
Direct Expenses	
Seed and plants	63.11
Fertilizer	56.73
Crop chemicals	71.08
Crop insurance	33.29
Storage	0.40
Fuel & oil	27.47
Repairs	45.56
Land rent	108.88
Operating interest	6.15
Total direct expenses per acre	412.67
Return over direct exp per acre	66.43
Overhead Expenses	
Hired labor	32.49
Machinery leases	4.46
Farm insurance	7.37
Utilities	6.06
Dues & professional fees	6.73
Interest	4.89
Mach & bldg depreciation	50.16
Miscellaneous	5.68
Total overhead expenses per acre	117.83
Total dir & ovhd expenses per acre	530.51
Net return per acre	-51.41
Government payments	-
Net return with govt pmts	-51.41
Labor & management charge	48.88
Net return over lbr & mgt	-100.28
Cost of Production	
Total direct expense per cwt.	53.98
Total dir & ovhd exp per cwt.	69.40
Less govt & other income	38.88
With labor & management	45.28
Net value per unit	32.16
Machinery cost per acre	127.64
Est. labor hours per acre	2.36

Crop Enterprise Analysis
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2021
(Farms Sorted By Return to Overhead)

Corn on Owned Land

	Avg. Of All Farms	*Low 20%*	*40 - 60%*	*High 20%*
Number of farms	71	14	14	15
Acres	295.67	206.94	300.04	272.97
Yield per acre (bu.)	159.54	106.83	164.78	190.69
Operators share of yield %	100.00	100.00	100.00	100.00
Value per bu.	5.38	4.82	5.33	5.70
Total product return per acre	858.41	514.81	878.26	1,087.32
Hedging gains/losses per acre	-11.07	-0.21	-25.47	-5.81
Crop insurance per acre	21.06	93.58	5.52	18.32
LDP income per acre	5.32	-	-	-
Other crop income per acre	4.24	4.57	0.87	8.66
Gross return per acre	877.95	612.75	859.18	1,108.49
Direct Expenses				
Seed and plants	92.96	90.68	90.89	95.22
Fertilizer	124.26	136.27	123.45	126.58
Crop chemicals	24.85	26.07	22.50	27.40
Crop insurance	24.24	28.70	24.02	24.59
Drying expense	6.86	3.54	10.28	9.19
Storage	0.92	0.01	4.20	-
Fuel & oil	27.58	25.48	25.75	30.47
Repairs	59.49	46.94	68.60	61.12
Custom hire	4.31	5.79	3.47	5.41
Hired labor	5.20	1.97	2.54	0.30
Machinery leases	0.68	1.21	-	2.04
Utilities	0.20	-	-	1.00
Hauling and trucking	0.50	-	-	2.55
Marketing	0.19	0.08	0.64	-
Operating interest	15.36	12.08	9.43	13.77
Miscellaneous	2.32	0.50	2.04	0.92
Total direct expenses per acre	389.92	379.32	387.81	400.57
Return over direct exp per acre	488.04	233.43	471.37	707.92
Overhead Expenses				
Custom hire	1.26	-	0.56	1.34
Hired labor	25.83	17.39	25.47	26.63
Machinery leases	8.14	2.62	1.22	10.92
Building leases	1.01	0.33	0.14	0.20
RE & pers. property taxes	25.40	18.56	28.98	26.95
Farm insurance	10.64	7.56	13.48	13.15
Utilities	6.02	4.56	6.28	5.60
Dues & professional fees	5.44	5.90	3.18	5.82
Interest	49.32	69.26	39.20	41.76
Mach & bldg depreciation	55.92	42.91	84.58	64.25
Miscellaneous	4.82	3.53	8.21	3.90
Licenses & registrations	0.03	0.22	-	-
Office & administrative	0.01	0.06	-	-
Total overhead expenses per acre	193.83	172.91	211.31	200.51
Total dir & ovhd expenses per acre	583.75	552.22	599.12	601.08
Net return per acre	294.21	60.52	260.06	507.41
Government payments	12.50	8.95	9.63	13.78
Net return with govt pmts	306.71	69.47	269.69	521.19
Labor & management charge	52.67	47.86	67.28	49.31
Net return over lbr & mgt	254.04	21.61	202.40	471.88
Cost of Production				
Total direct expense per bu.	2.44	3.55	2.35	2.10
Total dir & ovhd exp per bu.	3.66	5.17	3.64	3.15
Less govt & other income	3.46	4.17	3.69	2.97
With labor & management	3.79	4.62	4.10	3.23
Net value per unit	5.34	4.82	5.18	5.67
Machinery cost per acre	154.15	122.49	173.84	174.65
Est. labor hours per acre	2.29	2.00	2.62	1.93

Crop Enterprise Analysis
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2021
(Farms Sorted By Return to Overhead)

Corn on Cash Rent

	Avg. Of All Farms	*Low 20%*	*40 - 60%*	*High 20%*
Number of farms	123	24	24	25
Acres	620.38	673.19	660.31	599.28
Yield per acre (bu.)	149.97	107.30	162.00	179.15
Operators share of yield %	100.00	100.00	100.00	100.00
Value per bu.	5.34	5.04	5.15	5.62
Total product return per acre	801.03	540.74	834.95	1,007.67
Hedging gains/losses per acre	-8.79	-7.66	-6.39	0.08
Crop insurance per acre	35.15	103.40	5.29	16.96
LDP income per acre	5.05	-	-	25.71
Other crop income per acre	3.06	2.22	2.52	3.76
Gross return per acre	835.50	638.69	836.37	1,054.19
Direct Expenses				
Seed and plants	89.35	91.40	89.37	89.10
Fertilizer	124.99	130.72	127.87	123.11
Crop chemicals	27.82	31.75	26.46	26.50
Crop insurance	20.64	24.69	15.88	21.68
Drying expense	5.20	1.90	8.33	6.92
Storage	0.16	0.00	0.17	-
Fuel & oil	24.91	23.16	25.63	29.25
Repairs	54.29	52.36	50.54	63.27
Custom hire	6.30	5.45	3.81	3.23
Hired labor	3.93	0.46	7.15	0.24
Land rent	144.52	142.65	158.09	139.44
Machinery leases	0.97	0.92	0.52	1.42
Utilities	0.21	-	0.57	0.23
Hauling and trucking	0.24	-	-	1.23
Marketing	0.34	0.40	0.89	0.03
Operating interest	11.90	12.26	12.74	18.38
Miscellaneous	2.20	1.88	2.61	0.48
Total direct expenses per acre	517.10	520.01	530.62	520.07
Return over direct exp per acre	318.39	118.68	305.75	534.12
Overhead Expenses				
Custom hire	1.15	-	-	4.48
Hired labor	23.30	24.65	12.13	40.45
Machinery leases	6.58	0.83	12.71	8.71
Building leases	1.35	0.47	5.74	0.11
RE & pers. property taxes	0.09	-	-	0.10
Farm insurance	7.72	7.41	8.35	9.40
Utilities	4.69	3.20	4.17	6.46
Dues & professional fees	4.83	4.99	2.93	7.38
Interest	3.10	4.68	3.45	1.90
Mach & bldg depreciation	41.20	37.81	38.77	55.07
Miscellaneous	4.58	5.48	4.48	6.06
Licenses & registrations	0.01	0.03	-	-
Office & administrative	0.00	0.01	-	-
Total overhead expenses per acre	98.38	89.55	92.75	139.01
Total dir & ovhd expenses per acre	615.49	609.56	623.37	659.08
Net return per acre	220.01	29.13	213.01	395.11
Government payments	8.38	5.00	5.43	15.12
Net return with govt pmts	228.39	34.13	218.44	410.22
Labor & management charge	47.93	44.37	44.87	49.55
Net return over lbr & mgt	180.46	-10.23	173.57	360.67
Cost of Production				
Total direct expense per bu.	3.45	4.85	3.28	2.90
Total dir & ovhd exp per bu.	4.10	5.68	3.85	3.68
Less govt & other income	3.82	4.72	3.81	3.33
With labor & management	4.14	5.14	4.08	3.61
Net value per unit	5.32	4.97	5.11	5.77
Machinery cost per acre	134.55	121.89	132.37	163.36
Est. labor hours per acre	2.14	2.03	2.08	2.18

Crop Enterprise Analysis
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2021
(Farms Sorted By Return to Overhead)

Corn Silage on Cash Rent

	Avg. Of All Farms
Number of farms	7
Acres	309.50
Yield per acre (ton)	20.20
Operators share of yield %	100.00
Value per ton	43.09
Total product return per acre	870.18
Crop insurance per acre	5.61
Other crop income per acre	0.27
Gross return per acre	876.06
Direct Expenses	
Seed and plants	72.68
Fertilizer	115.21
Crop chemicals	29.53
Crop insurance	16.71
Fuel & oil	19.92
Repairs	40.68
Custom hire	6.35
Land rent	140.83
Operating interest	12.32
Miscellaneous	0.58
Total direct expenses per acre	454.80
Return over direct exp per acre	421.26
Overhead Expenses	
Hired labor	54.36
Machinery leases	3.63
Building leases	0.02
Farm insurance	10.42
Utilities	10.57
Dues & professional fees	7.76
Interest	3.70
Mach & bldg depreciation	38.18
Miscellaneous	1.02
Total overhead expenses per acre	129.66
Total dir & ovhd expenses per acre	584.46
Net return per acre	291.60
Government payments	23.65
Net return with govt pmts	315.25
Labor & management charge	33.52
Net return over lbr & mgt	281.73
Cost of Production	
Total direct expense per ton	22.52
Total dir & ovhd exp per ton	28.94
Less govt & other income	27.48
With labor & management	29.14
Net value per unit	43.09
Machinery cost per acre	111.77
Est. labor hours per acre	2.33

Crop Enterprise Analysis
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2021
(Farms Sorted By Return to Overhead)

CRP on Owned Land

	Avg. Of All Farms
Number of farms	10
Acres	50.02
Gross return per acre	125.13
Direct Expenses	
Crop chemicals	0.72
Fuel & oil	1.64
Repairs	3.80
Operating interest	0.53
Total direct expenses per acre	6.70
Return over direct exp per acre	118.44
Overhead Expenses	
Custom hire	0.02
Hired labor	1.58
Machinery leases	0.13
Building leases	0.54
RE & pers. property taxes	19.79
Farm insurance	4.19
Utilities	0.74
Dues & professional fees	2.03
Interest	10.90
Mach & bldg depreciation	4.28
Miscellaneous	1.05
Total overhead expenses per acre	45.25
Total dir & ovhd expenses per acre	51.95
Net return per acre	73.18
Government payments	-
Net return with govt pmts	73.18
Labor & management charge	3.89
Net return over lbr & mgt	69.30
Net value per unit	1.00
Machinery cost per acre	9.67
Est. labor hours per acre	0.24

Crop Enterprise Analysis
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2021
(Farms Sorted By Return to Overhead)

Hay, Alfalfa on Cash Rent

	Avg. Of All Farms
Number of farms	8
Acres	221.06
Yield per acre (ton)	2.57
Operators share of yield %	100.00
Value per ton	184.43
Total product return per acre	474.45
Crop insurance per acre	1.41
Other crop income per acre	1.95
Gross return per acre	477.81
Direct Expenses	
Fertilizer	33.44
Crop chemicals	5.74
Crop insurance	1.74
Packaging and supplies	9.50
Fuel & oil	18.56
Repairs	35.92
Custom hire	4.36
Land rent	146.51
Machinery leases	15.63
Operating interest	8.64
Miscellaneous	1.59
Total direct expenses per acre	281.62
Return over direct exp per acre	196.19
Overhead Expenses	
Hired labor	21.43
Machinery leases	1.13
Farm insurance	7.69
Utilities	3.67
Dues & professional fees	2.45
Interest	4.50
Mach & bldg depreciation	27.23
Miscellaneous	2.56
Total overhead expenses per acre	70.67
Total dir & ovhd expenses per acre	352.29
Net return per acre	125.52
Government payments	0.23
Net return with govt pmts	125.76
Labor & management charge	31.67
Net return over lbr & mgt	94.09
Cost of Production	
Total direct expense per ton	109.47
Total dir & ovhd exp per ton	136.94
Less govt & other income	135.55
With labor & management	147.86
Net value per unit	184.43
Machinery cost per acre	104.81
Est. labor hours per acre	1.93

Crop Enterprise Analysis
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2021
(Farms Sorted By Return to Overhead)

Soybeans on Owned Land

	Avg. Of All Farms	*Low 20%*	*40 - 60%*	*High 20%*
Number of farms	95	19	19	19
Acres	278.37	244.00	261.76	297.92
Yield per acre (bu.)	33.38	22.48	28.70	48.10
Operators share of yield %	100.00	100.00	100.00	100.00
Value per bu.	12.41	11.42	12.39	12.87
Total product return per acre	414.24	256.65	355.50	618.98
Hedging gains/losses per acre	-2.67	-	-	-6.21
Crop insurance per acre	45.73	68.12	71.05	5.44
Other crop income per acre	6.28	15.19	4.61	6.78
Gross return per acre	463.58	339.96	431.16	625.00
Direct Expenses				
Seed and plants	59.84	59.61	65.96	52.18
Fertilizer	16.05	42.73	6.76	10.67
Crop chemicals	38.98	41.34	39.75	45.96
Crop insurance	21.24	23.45	17.20	22.66
Drying expense	0.09	-	-	-
Storage	0.11	-	0.27	0.15
Fuel & oil	13.74	15.26	13.38	13.52
Repairs	30.03	27.09	28.87	29.42
Custom hire	5.81	6.36	2.43	5.03
Hired labor	1.62	4.34	-	1.13
Machinery leases	1.30	3.33	0.22	0.02
Utilities	0.05	-	-	-
Hauling and trucking	0.87	0.06	-	-
Marketing	0.26	0.00	0.80	0.24
Operating interest	5.65	6.62	2.87	4.28
Miscellaneous	2.00	1.78	1.16	2.43
Total direct expenses per acre	197.65	231.97	179.69	187.69
Return over direct exp per acre	265.93	107.98	251.47	437.31
Overhead Expenses				
Custom hire	0.59	0.31	0.14	0.84
Hired labor	13.51	11.79	16.88	15.30
Machinery leases	2.61	0.93	1.87	4.90
Building leases	0.44	0.45	0.39	0.58
RE & pers. property taxes	23.47	16.54	22.56	25.12
Farm insurance	8.44	7.34	9.03	7.18
Utilities	4.08	3.95	4.07	3.48
Dues & professional fees	3.72	3.32	2.37	4.09
Interest	50.63	43.82	54.52	35.84
Mach & bldg depreciation	28.85	28.93	28.69	28.08
Miscellaneous	3.96	5.41	3.49	6.22
Licenses & registrations	0.01	0.04	-	-
Office & administrative	0.00	0.01	-	-
Total overhead expenses per acre	140.30	122.86	144.00	131.63
Total dir & ovhd expenses per acre	337.96	354.83	323.69	319.32
Net return per acre	125.63	-14.88	107.47	305.68
Government payments	10.66	9.73	8.74	13.61
Net return with govt pmts	136.29	-5.15	116.21	319.28
Labor & management charge	32.03	32.09	35.89	30.42
Net return over lbr & mgt	104.26	-37.24	80.32	288.87
Cost of Production				
Total direct expense per bu.	5.92	10.32	6.26	3.90
Total dir & ovhd exp per bu.	10.13	15.79	11.28	6.64
Less govt & other income	8.33	11.65	8.34	6.23
With labor & management	9.29	13.08	9.59	6.86
Net value per unit	12.33	11.42	12.39	12.74
Machinery cost per acre	82.50	80.77	75.11	81.50
Est. labor hours per acre	1.33	1.53	1.35	1.18

Crop Enterprise Analysis
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2021
(Farms Sorted By Return to Overhead)

Soybeans on Cash Rent

	Avg. Of All Farms	*Low 20%*	*40 - 60%*	*High 20%*
Number of farms	141	28	28	29
Acres	665.52	579.03	778.84	625.06
Yield per acre (bu.)	34.23	25.90	32.52	45.59
Operators share of yield %	100.00	100.00	100.00	100.00
Value per bu.	12.32	11.59	12.19	12.83
Total product return per acre	421.71	300.08	396.54	585.16
Hedging gains/losses per acre	-2.38	-8.40	-0.84	-
Crop insurance per acre	42.13	58.62	38.97	18.34
Other crop income per acre	4.57	5.49	2.93	2.64
Gross return per acre	466.02	355.79	437.60	606.14
Direct Expenses				
Seed and plants	57.98	61.65	57.19	56.92
Fertilizer	14.46	27.37	12.03	6.00
Crop chemicals	36.59	34.50	34.42	46.60
Cover crop expense	0.00	-	-	0.01
Crop insurance	20.05	24.31	17.64	20.93
Drying expense	0.03	-	0.05	-
Storage	0.15	0.10	0.31	0.13
Fuel & oil	13.89	16.06	13.84	14.16
Repairs	30.16	28.77	32.24	31.01
Custom hire	4.29	6.14	3.12	3.12
Hired labor	1.41	2.95	1.17	0.13
Land rent	138.39	150.18	133.98	124.74
Machinery leases	0.65	0.41	1.06	0.15
Utilities	0.13	-	0.17	0.05
Hauling and trucking	0.07	-	-	-
Marketing	0.30	0.04	0.60	0.06
Operating interest	5.89	4.56	5.50	8.11
Miscellaneous	1.76	2.76	2.13	0.37
Total direct expenses per acre	326.20	359.78	315.45	312.48
Return over direct exp per acre	139.82	-3.99	122.14	293.66
Overhead Expenses				
Custom hire	0.24	-	-	1.28
Hired labor	13.63	13.03	15.44	21.82
Machinery leases	3.09	3.72	1.80	3.56
Building leases	0.57	0.45	0.51	0.17
RE & pers. property taxes	0.04	-	-	0.19
Farm insurance	6.41	7.18	6.03	7.24
Utilities	3.44	3.74	3.36	4.46
Dues & professional fees	4.10	5.23	3.94	5.69
Interest	2.58	1.95	3.89	1.16
Mach & bldg depreciation	24.47	25.81	24.01	28.39
Miscellaneous	2.84	3.92	2.67	3.84
Licenses & registrations	0.01	0.03	-	-
Office & administrative	0.00	0.01	-	-
Total overhead expenses per acre	61.42	65.08	61.64	77.81
Total dir & ovhd expenses per acre	387.62	424.86	377.10	390.29
Net return per acre	78.40	-69.07	60.50	215.85
Government payments	9.57	10.91	8.41	17.15
Net return with govt pmts	87.98	-58.16	68.91	233.01
Labor & management charge	28.34	29.60	29.65	26.72
Net return over lbr & mgt	59.64	-87.76	39.26	206.29
Cost of Production				
Total direct expense per bu.	9.53	13.89	9.70	6.85
Total dir & ovhd exp per bu.	11.32	16.41	11.59	8.56
Less govt & other income	9.75	13.83	10.07	7.72
With labor & management	10.58	14.98	10.98	8.31
Net value per unit	12.25	11.26	12.17	12.83
Machinery cost per acre	77.34	80.29	77.45	82.13
Est. labor hours per acre	1.30	1.50	1.50	1.28

Crop Enterprise Analysis
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2021
(Farms Sorted By Return to Overhead)

Soybeans, Food on Cash Rent

	Avg. Of All Farms
Number of farms	7
Acres	664.88
Yield per acre (bu.)	35.38
Operators share of yield %	100.00
Value per bu.	15.14
Total product return per acre	535.71
Hedging gains/losses per acre	9.01
Crop insurance per acre	16.53
Other crop income per acre	17.77
Gross return per acre	579.02
Direct Expenses	
Seed and plants	32.63
Fertilizer	13.54
Crop chemicals	30.92
Crop insurance	16.12
Storage	0.37
Fuel & oil	18.94
Repairs	33.07
Custom hire	7.58
Hired labor	6.19
Land rent	162.65
Machinery leases	1.01
Marketing	0.42
Operating interest	10.21
Miscellaneous	2.76
Total direct expenses per acre	336.40
Return over direct exp per acre	242.62
Overhead Expenses	
Custom hire	0.20
Hired labor	15.48
Machinery leases	0.14
Building leases	0.11
Farm insurance	4.21
Utilities	6.32
Dues & professional fees	6.89
Interest	1.05
Mach & bldg depreciation	30.26
Miscellaneous	6.43
Total overhead expenses per acre	71.09
Total dir & ovhd expenses per acre	407.49
Net return per acre	171.53
Government payments	11.19
Net return with govt pmts	182.72
Labor & management charge	28.61
Net return over lbr & mgt	154.11
Cost of Production	
Total direct expense per bu.	9.51
Total dir & ovhd exp per bu.	11.52
Less govt & other income	9.98
With labor & management	10.79
Net value per unit	15.40
Machinery cost per acre	88.12
Est. labor hours per acre	1.03

Crop Enterprise Analysis
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2021
(Farms Sorted By Return to Overhead)

Soybeans, Seed on Owned Land

	Avg. Of All Farms
Number of farms	10
Acres	307.49
Yield per acre (bu.)	36.71
Operators share of yield %	100.00
Value per bu.	12.72
Total product return per acre	466.82
Crop insurance per acre	29.85
Other crop income per acre	8.10
Gross return per acre	504.76
Direct Expenses	
Seed and plants	55.40
Fertilizer	7.24
Crop chemicals	33.88
Crop insurance	20.39
Fuel & oil	15.63
Repairs	35.64
Custom hire	0.30
Hired labor	20.93
Machinery leases	3.03
Marketing	0.11
Operating interest	2.52
Miscellaneous	2.82
Total direct expenses per acre	197.89
Return over direct exp per acre	306.87
Overhead Expenses	
Hired labor	6.23
Machinery leases	12.29
Building leases	0.16
RE & pers. property taxes	17.31
Farm insurance	5.98
Utilities	2.82
Dues & professional fees	4.48
Interest	53.45
Mach & bldg depreciation	23.67
Miscellaneous	3.36
Total overhead expenses per acre	129.74
Total dir & ovhd expenses per acre	327.63
Net return per acre	177.13
Government payments	5.15
Net return with govt pmts	182.28
Labor & management charge	46.02
Net return over lbr & mgt	136.26
Cost of Production	
Total direct expense per bu.	5.39
Total dir & ovhd exp per bu.	8.93
Less govt & other income	7.75
With labor & management	9.00
Net value per unit	12.72
Machinery cost per acre	85.02
Est. labor hours per acre	2.03

Crop Enterprise Analysis
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2021
(Farms Sorted By Return to Overhead)

Soybeans, Seed on Cash Rent

	Avg. Of All Farms	***High 20%***
Number of farms	21	5
Acres	660.47	378.44
Yield per acre (bu.)	32.22	36.25
Operators share of yield %	100.00	100.00
Value per bu.	13.02	13.16
Total product return per acre	419.49	477.04
Crop insurance per acre	59.75	0.93
Other crop income per acre	7.36	28.00
Gross return per acre	486.60	505.97
Direct Expenses		
Seed and plants	60.17	58.39
Fertilizer	12.76	10.69
Crop chemicals	35.41	33.97
Crop insurance	20.60	20.30
Storage	0.37	-
Fuel & oil	14.76	12.52
Repairs	32.65	26.38
Custom hire	0.92	1.01
Hired labor	9.45	0.24
Land rent	137.45	112.14
Machinery leases	2.31	3.44
Marketing	0.07	0.08
Operating interest	3.69	2.15
Miscellaneous	2.52	3.15
Total direct expenses per acre	333.16	284.46
Return over direct exp per acre	153.44	221.52
Overhead Expenses		
Hired labor	9.37	1.92
Machinery leases	6.30	2.35
Building leases	0.22	-
Farm insurance	7.11	6.02
Utilities	3.04	3.99
Dues & professional fees	4.09	4.07
Interest	3.13	6.63
Mach & bldg depreciation	23.72	25.92
Miscellaneous	2.55	1.81
Total overhead expenses per acre	59.52	52.70
Total dir & ovhd expenses per acre	392.68	337.16
Net return per acre	93.92	168.81
Government payments	6.54	4.45
Net return with govt pmts	100.46	173.27
Labor & management charge	42.32	44.07
Net return over lbr & mgt	58.14	129.20
Cost of Production		
Total direct expense per bu.	10.34	7.85
Total dir & ovhd exp per bu.	12.19	9.30
Less govt & other income	9.90	8.38
With labor & management	11.22	9.60
Net value per unit	13.02	13.16
Machinery cost per acre	79.05	75.52
Est. labor hours per acre	1.71	1.52

Crop Enterprise Analysis
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2021
(Farms Sorted By Return to Overhead)

Sugar Beets on Owned Land, Excluding Joint Venture

	Avg. Of All Farms	Low 20%	40 - 60%	High 20%
Number of farms	27	5	6	6
Acres	131.13	206.46	89.80	113.08
Yield per acre (ton)	28.53	25.80	30.34	28.79
Operators share of yield %	100.00	100.00	100.00	100.00
Value per ton	47.52	44.09	46.30	56.09
Total product return per acre	1,355.63	1,137.62	1,404.81	1,614.88
Crop insurance per acre	15.09	13.77	-	38.80
Other crop income per acre	2.99	2.98	7.69	0.30
Gross return per acre	1,373.71	1,154.36	1,412.50	1,653.98
Direct Expenses				
Seed and plants	224.97	223.34	226.69	229.19
Fertilizer	94.35	79.15	91.31	96.43
Crop chemicals	131.99	128.28	138.93	113.86
Crop insurance	34.73	42.11	33.61	28.76
Fuel & oil	52.01	56.57	46.75	50.35
Repairs	128.39	133.93	169.08	107.85
Custom hire	22.58	44.79	2.74	18.23
Hired labor	17.40	29.68	3.69	5.70
Machinery leases	1.19	1.76	0.81	2.89
Hauling and trucking	9.92	15.32	7.54	12.70
Operating interest	16.66	5.68	45.94	15.85
Miscellaneous	3.98	5.95	0.62	2.25
Total direct expenses per acre	738.17	766.57	767.70	684.06
Return over direct exp per acre	635.54	387.80	644.79	969.92
Overhead Expenses				
Hired labor	46.60	19.29	56.21	80.41
Machinery leases	21.46	38.98	19.18	14.56
Building leases	1.37	2.84	0.03	-
RE & pers. property taxes	29.23	26.81	17.74	29.28
Farm insurance	16.76	17.85	20.79	16.18
Utilities	10.00	8.25	13.39	9.38
Dues & professional fees	8.87	7.44	6.55	15.69
Interest	67.68	70.22	48.36	48.34
Mach & bldg depreciation	94.10	100.16	101.74	74.22
Miscellaneous	11.75	11.27	10.94	9.76
Total overhead expenses per acre	307.82	303.11	294.93	297.82
Total dir & ovhd expenses per acre	1,045.99	1,069.68	1,062.64	981.87
Net return per acre	327.72	84.69	349.86	672.11
Government payments	28.46	2.31	10.68	7.27
Net return with govt pmts	356.18	87.00	360.54	679.37
Labor & management charge	107.48	132.49	97.26	102.02
Net return over lbr & mgt	248.70	-45.49	263.28	577.35
Cost of Production				
Total direct expense per ton	25.87	29.71	25.30	23.76
Total dir & ovhd exp per ton	36.66	41.45	35.02	34.11
Less govt & other income	35.03	40.71	34.42	32.50
With labor & management	38.80	45.85	37.62	36.04
Net value per unit	47.52	44.09	46.30	56.09
Machinery cost per acre	320.97	361.29	347.09	278.46
Est. labor hours per acre	4.97	6.30	4.44	4.49

Crop Enterprise Analysis
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Red River Valley, 2021
(Farms Sorted By Return to Overhead)

Sugar Beets on Owned Land, Joint Venture

	Avg. Of All Farms
Number of farms	8
Acres	262.11
Yield per acre (ton)	27.62
Operators share of yield %	100.00
Value per ton	51.67
Total product return per acre	1,427.14
Crop insurance per acre	44.80
Other crop income per acre	4.78
Gross return per acre	1,476.72
Direct Expenses	
Seed and plants	233.18
Fertilizer	92.75
Crop chemicals	132.34
Crop insurance	32.56
Fuel & oil	42.86
Repairs	98.47
Custom hire	53.80
Hired labor	16.91
Stock/quota lease	227.50
Machinery leases	0.00
Hauling and trucking	18.33
Operating interest	11.24
Miscellaneous	2.23
Total direct expenses per acre	962.17
Return over direct exp per acre	514.55
Overhead Expenses	
Hired labor	76.50
Machinery leases	24.33
Building leases	0.19
RE & pers. property taxes	33.48
Farm insurance	15.04
Utilities	10.42
Dues & professional fees	10.21
Interest	92.23
Mach & bldg depreciation	88.53
Miscellaneous	3.81
Total overhead expenses per acre	354.76
Total dir & ovhd expenses per acre	1,316.93
Net return per acre	159.79
Government payments	6.25
Net return with govt pmts	166.04
Labor & management charge	107.82
Net return over lbr & mgt	58.22
Cost of Production	
Total direct expense per ton	34.83
Total dir & ovhd exp per ton	47.68
Less govt & other income	45.66
With labor & management	49.56
Net value per unit	51.67
Machinery cost per acre	309.37
Est. labor hours per acre	4.81

Crop Enterprise Analysis
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2021
(Farms Sorted By Return to Overhead)

Sugar Beets on Cash Rent, Excluding Joint Venture

	Avg. Of All Farms	Low 20%	40 - 60%	High 20%
Number of farms	54	10	11	11
Acres	272.97	259.60	328.91	223.27
Yield per acre (ton)	29.17	26.11	29.75	31.96
Operators share of yield %	100.00	100.00	100.00	100.00
Value per ton	48.30	44.28	44.32	58.51
Total product return per acre	1,408.66	1,155.93	1,318.69	1,870.21
Crop insurance per acre	10.40	11.70	11.24	20.19
Other crop income per acre	3.70	3.02	3.06	1.99
Gross return per acre	1,422.76	1,170.65	1,332.99	1,892.40
Direct Expenses				
Seed and plants	222.44	226.17	228.89	222.41
Fertilizer	84.54	78.62	85.83	95.09
Crop chemicals	126.85	132.16	124.26	121.40
Cover crop expense	0.00	-	-	-
Crop insurance	31.47	45.92	23.73	28.20
Fuel & oil	51.98	46.25	33.82	58.61
Repairs	107.94	109.08	72.17	101.83
Custom hire	29.88	84.70	12.59	27.44
Hired labor	24.22	33.48	16.71	49.73
Land rent	149.88	155.03	159.49	136.67
Machinery leases	1.08	0.56	-	5.86
Hauling and trucking	8.63	10.06	1.80	1.10
Operating interest	15.25	6.25	23.58	9.76
Miscellaneous	6.02	6.35	11.38	2.23
Total direct expenses per acre	860.18	934.64	794.25	860.34
Return over direct exp per acre	562.58	236.01	538.74	1,032.05
Overhead Expenses				
Custom hire	1.37	-	1.54	-
Hired labor	50.94	11.04	27.59	69.74
Machinery leases	12.54	27.99	11.53	11.92
Building leases	1.28	2.43	1.62	-
RE & pers. property taxes	0.29	-	-	-
Farm insurance	14.54	12.12	9.67	25.54
Utilities	9.88	6.46	4.79	15.69
Dues & professional fees	8.91	5.12	7.20	14.80
Interest	9.11	4.25	11.10	7.60
Mach & bldg depreciation	92.66	74.92	76.92	129.04
Miscellaneous	15.09	10.50	2.22	45.39
Total overhead expenses per acre	216.62	154.83	154.18	319.72
Total dir & ovhd expenses per acre	1,076.80	1,089.47	948.43	1,180.06
Net return per acre	345.96	81.18	384.56	712.33
Government payments	12.05	1.75	8.71	6.45
Net return with govt pmts	358.00	82.93	393.28	718.79
Labor & management charge	113.18	138.12	68.61	131.34
Net return over lbr & mgt	244.83	-55.19	324.67	587.45
Cost of Production				
Total direct expense per ton	29.49	35.80	26.69	26.92
Total dir & ovhd exp per ton	36.92	41.73	31.88	36.92
Less govt & other income	36.02	41.10	31.10	36.02
With labor & management	39.90	46.39	33.41	40.13
Net value per unit	48.30	44.28	44.32	58.51
Machinery cost per acre	298.17	329.23	218.13	324.10
Est. labor hours per acre	4.81	6.32	2.67	6.16

Crop Enterprise Analysis
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2021
(Farms Sorted By Return to Overhead)

Sugar Beets on Cash Rent, Joint Venture

	Avg. Of All Farms	Low 20%	40 - 60%	High 20%
Number of farms	38	7	7	8
Acres	293.56	285.40	345.10	246.41
Yield per acre (ton)	27.84	26.52	25.57	32.18
Operators share of yield %	100.00	100.00	100.00	100.00
Value per ton	51.95	51.24	54.39	53.74
Total product return per acre	1,446.54	1,358.73	1,390.92	1,729.45
Crop insurance per acre	24.42	15.18	53.35	-
Other crop income per acre	2.18	3.01	1.57	1.62
Gross return per acre	1,473.14	1,376.93	1,445.84	1,731.07
Direct Expenses				
Seed and plants	228.41	228.72	229.60	221.39
Fertilizer	87.54	93.06	89.38	84.12
Crop chemicals	143.16	142.55	133.31	125.70
Cover crop expense	0.04	0.23	-	-
Crop insurance	32.46	29.95	29.85	28.20
Fuel & oil	55.29	52.85	54.29	53.84
Repairs	104.89	88.75	94.17	102.55
Custom hire	36.99	103.47	34.47	17.68
Hired labor	25.06	13.94	31.75	24.10
Land rent	145.74	162.96	128.60	134.81
Stock/quota lease	249.53	361.79	274.02	209.30
Machinery leases	0.82	-	-	4.41
Hauling and trucking	8.76	2.53	21.35	-
Operating interest	18.53	26.09	12.90	16.84
Miscellaneous	3.79	7.50	1.95	3.05
Total direct expenses per acre	1,141.02	1,314.39	1,135.63	1,026.01
Return over direct exp per acre	332.12	62.53	310.21	705.06
Overhead Expenses				
Custom hire	0.09	-	-	-
Hired labor	57.25	54.83	67.79	40.25
Machinery leases	10.43	6.75	0.42	0.15
Building leases	1.26	2.53	1.02	-
Farm insurance	12.41	8.61	9.92	14.46
Utilities	9.46	7.14	9.86	10.84
Dues & professional fees	9.09	7.72	5.47	17.46
Interest	12.16	18.80	8.08	9.70
Mach & bldg depreciation	79.02	84.51	79.24	77.69
Miscellaneous	13.46	3.18	20.07	6.03
Total overhead expenses per acre	204.61	194.07	201.87	176.58
Total dir & ovhd expenses per acre	1,345.63	1,508.46	1,337.50	1,202.59
Net return per acre	127.51	-131.53	108.34	528.49
Government payments	8.30	10.71	9.54	4.72
Net return with govt pmts	135.81	-120.82	117.88	533.21
Labor & management charge	113.21	119.01	106.58	124.95
Net return over lbr & mgt	22.59	-239.83	11.30	408.26
Cost of Production				
Total direct expense per ton	40.98	49.56	44.41	31.88
Total dir & ovhd exp per ton	48.33	56.88	52.31	37.37
Less govt & other income	47.08	55.79	49.78	37.17
With labor & management	51.14	60.28	53.95	41.06
Net value per unit	51.95	51.24	54.39	53.74
Machinery cost per acre	289.52	344.44	262.75	254.05
Est. labor hours per acre	4.37	4.07	4.02	4.32

Crop Enterprise Analysis
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2021
(Farms Sorted By Return to Overhead)

Sunflowers on Cash Rent

	Avg. Of All Farms
Number of farms	8
Acres	254.85
Yield per acre (cwt.)	23.10
Operators share of yield %	100.00
Value per cwt.	29.34
Total product return per acre	677.97
Crop insurance per acre	0.42
Other crop income per acre	3.92
Gross return per acre	682.31
Direct Expenses	
Seed and plants	34.47
Fertilizer	45.88
Crop chemicals	32.29
Crop insurance	16.44
Fuel & oil	15.65
Repairs	41.99
Custom hire	12.42
Land rent	85.60
Machinery leases	1.08
Operating interest	3.13
Miscellaneous	1.88
Total direct expenses per acre	290.82
Return over direct exp per acre	391.49
Overhead Expenses	
Custom hire	1.21
Hired labor	15.29
Machinery leases	1.17
RE & pers. property taxes	0.24
Farm insurance	3.60
Utilities	5.25
Dues & professional fees	6.05
Interest	8.40
Mach & bldg depreciation	19.21
Miscellaneous	3.24
Total overhead expenses per acre	63.66
Total dir & ovhd expenses per acre	354.48
Net return per acre	327.84
Government payments	10.37
Net return with govt pmts	338.21
Labor & management charge	34.61
Net return over lbr & mgt	303.60
Cost of Production	
Total direct expense per cwt.	12.59
Total dir & ovhd exp per cwt.	15.34
Less govt & other income	14.71
With labor & management	16.20
Net value per unit	29.34
Machinery cost per acre	99.63
Est. labor hours per acre	1.63

Crop Enterprise Analysis
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2021
(Farms Sorted By Return to Overhead)

Wheat, Spring on Owned Land

	Avg. Of All Farms	Low 20%	40 - 60%	High 20%
Number of farms	65	13	13	13
Acres	217.82	216.79	174.54	175.91
Yield per acre (bu.)	57.28	46.55	50.99	73.59
Operators share of yield %	100.00	100.00	100.00	100.00
Value per bu.	8.16	7.35	8.14	8.65
Total product return per acre	467.40	342.16	415.03	636.90
Hedging gains/losses per acre	0.35	-1.83	-	4.41
Crop insurance per acre	39.27	62.25	53.76	28.89
Other crop income per acre	12.02	10.27	18.87	28.94
Gross return per acre	519.04	412.85	487.66	699.14
Direct Expenses				
Seed and plants	24.50	27.47	24.40	23.60
Fertilizer	88.72	96.51	85.96	82.96
Crop chemicals	28.11	29.72	26.66	18.87
Crop insurance	16.65	20.63	14.82	12.81
Drying expense	0.19	0.09	0.13	0.49
Storage	0.31	-	0.05	0.47
Fuel & oil	14.80	15.22	14.15	14.90
Repairs	30.76	32.35	25.04	32.32
Custom hire	7.06	11.71	1.83	2.07
Hired labor	2.10	5.02	0.06	0.45
Machinery leases	0.43	-	0.98	0.32
Hauling and trucking	0.94	3.67	0.69	0.63
Marketing	0.10	0.02	0.02	0.43
Operating interest	4.95	4.99	4.10	3.64
Miscellaneous	2.69	3.44	1.53	2.47
Total direct expenses per acre	222.32	250.84	200.42	196.44
Return over direct exp per acre	296.72	162.00	287.25	502.70
Overhead Expenses				
Custom hire	0.19	0.00	-	0.34
Hired labor	14.78	17.86	6.46	10.66
Machinery leases	2.49	3.31	3.09	1.20
Building leases	0.85	0.57	0.65	0.49
RE & pers. property taxes	23.32	22.66	18.18	31.15
Farm insurance	10.35	7.24	6.04	8.21
Utilities	4.26	5.05	2.50	2.71
Dues & professional fees	4.78	5.39	3.09	2.93
Interest	48.41	51.66	51.48	53.62
Mach & bldg depreciation	27.70	28.10	20.30	25.92
Miscellaneous	4.27	3.72	2.86	10.96
Total overhead expenses per acre	141.39	145.57	114.64	148.19
Total dir & ovhd expenses per acre	363.71	396.41	315.05	344.63
Net return per acre	155.33	16.44	172.61	354.51
Government payments	9.15	10.25	10.77	12.60
Net return with govt pmts	164.48	26.69	183.38	367.11
Labor & management charge	32.35	31.45	30.54	23.88
Net return over lbr & mgt	132.13	-4.77	152.84	343.23
Cost of Production				
Total direct expense per bu.	3.88	5.39	3.93	2.67
Total dir & ovhd exp per bu.	6.35	8.52	6.18	4.68
Less govt & other income	5.29	6.78	4.54	3.67
With labor & management	5.85	7.45	5.14	3.99
Net value per unit	8.17	7.31	8.14	8.71
Machinery cost per acre	82.55	88.92	65.67	75.84
Est. labor hours per acre	1.58	1.73	1.37	1.20

Crop Enterprise Analysis
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2021
(Farms Sorted By Return to Overhead)

Wheat, Spring on Cash Rent

	Avg. Of All Farms	*Low 20%*	*40 - 60%*	*High 20%*
Number of farms	103	20	20	21
Acres	523.34	523.67	498.06	569.70
Yield per acre (bu.)	54.73	42.10	54.94	68.85
Operators share of yield %	100.00	100.00	100.00	100.00
Value per bu.	8.46	7.32	8.89	8.96
Total product return per acre	463.09	308.08	488.32	616.97
Hedging gains/losses per acre	-1.39	-4.26	-2.61	-0.64
Crop insurance per acre	43.36	98.57	17.96	9.52
Other crop income per acre	9.72	5.98	7.24	1.61
Gross return per acre	514.77	408.38	510.91	627.45
Direct Expenses				
Seed and plants	24.00	27.06	25.51	22.07
Fertilizer	92.59	102.17	94.62	81.55
Crop chemicals	26.21	31.67	27.07	20.80
Crop insurance	14.80	19.97	10.71	14.39
Drying expense	0.29	0.01	0.22	0.87
Storage	0.37	0.02	0.25	0.18
Fuel & oil	14.01	13.60	13.19	16.39
Repairs	27.80	29.23	21.74	26.26
Custom hire	3.92	8.10	5.86	2.14
Hired labor	2.17	5.10	0.42	0.16
Land rent	130.14	142.86	127.96	117.61
Machinery leases	0.97	-	1.14	-
Utilities	0.07	-	-	0.30
Hauling and trucking	0.17	0.88	-	-
Marketing	0.26	0.05	0.04	0.97
Operating interest	3.72	3.00	2.96	2.41
Miscellaneous	2.29	2.77	3.12	1.80
Total direct expenses per acre	343.77	386.49	334.82	307.91
Return over direct exp per acre	171.00	21.89	176.10	319.55
Overhead Expenses				
Custom hire	0.16	-	-	0.58
Hired labor	14.34	12.30	15.27	19.54
Machinery leases	2.52	4.46	0.96	2.19
Building leases	0.38	0.65	0.19	0.25
RE & pers. property taxes	0.01	-	0.07	-
Farm insurance	6.82	8.09	6.95	5.24
Utilities	3.58	3.69	3.49	4.30
Dues & professional fees	3.46	4.94	2.00	2.74
Interest	3.30	3.13	4.72	1.66
Mach & bldg depreciation	25.71	29.36	21.27	29.80
Miscellaneous	3.19	6.32	2.83	1.88
Total overhead expenses per acre	63.45	72.95	57.76	68.18
Total dir & ovhd expenses per acre	407.22	459.44	392.58	376.09
Net return per acre	107.55	-51.06	118.34	251.36
Government payments	8.94	10.50	7.57	12.27
Net return with govt pmts	116.49	-40.56	125.90	263.64
Labor & management charge	31.05	30.16	26.28	32.87
Net return over lbr & mgt	85.44	-70.72	99.63	230.77
Cost of Production				
Total direct expense per bu.	6.28	9.18	6.09	4.47
Total dir & ovhd exp per bu.	7.44	10.91	7.15	5.46
Less govt & other income	6.33	8.28	6.60	5.13
With labor & management	6.90	9.00	7.07	5.61
Net value per unit	8.44	7.22	8.84	8.95
Machinery cost per acre	75.79	84.78	66.16	75.87
Est. labor hours per acre	1.42	1.41	1.12	1.77

Farm Finance Scorecard

Year _____

Liquidity

1. Current ratio __ . __
2. Working capital $ _____
3. Working capital to gross revenues ____%

Solvency

4. Farm debt-to-asset ratio ____%
5. Farm equity-to-asset ratio ____%
6. Farm debt-to-equity ratio __ . __

Profitability

7. Net farm income $ _____
8. Rate of return on farm assets ____%
9. Rate of return on farm equity ____%
10. Operating profit margin ____%
11. EBITDA $ _____

Repayment capacity

12. Capital debt repayment capacity $ _____
13. Capital debt repayment margin $ _____
14. Replacement margin $ _____
15. Term-debt coverage ratio __ . __
16. Replacement margin coverage ratio __ . __

Financial efficiency

17. Asset-turnover rate ____%
18. Operating-expense ratio ____%
19. Depreciation-expense ratio ____%
20. Interest-expense ratio ____%
21. Net farm income ratio ____%