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Cover photo courtesy of Betsy Jensen, Stephen, MN
ACKNOWLEDGMENTS

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

<table>
<thead>
<tr>
<th>North Dakota</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fargo (NDSCS)</td>
<td>Ron Smithberg</td>
</tr>
<tr>
<td>Wahpeton (NDSCS)</td>
<td>Kara Wulfekuhle</td>
</tr>
<tr>
<td>Lake Region State College – Langdon</td>
<td>Jason Fewell</td>
</tr>
<tr>
<td></td>
<td>Jeremiah Halley</td>
</tr>
<tr>
<td></td>
<td>Darren Wilcox</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Minnesota</th>
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</tr>
</thead>
<tbody>
<tr>
<td>NCTC-Fergus Falls</td>
<td>Paul Oehlke</td>
</tr>
<tr>
<td>NCTC-Moorhead</td>
<td>Ron Dvergsten</td>
</tr>
<tr>
<td>NCTC-Red Lake Falls</td>
<td>Jessica Hanson</td>
</tr>
<tr>
<td>NCTC-Thief River Falls</td>
<td>Greg Dvergsten</td>
</tr>
<tr>
<td>East Grand Forks</td>
<td>Betsy Jensen</td>
</tr>
<tr>
<td>Ridgewater College – Barrett</td>
<td>Deron Erickson</td>
</tr>
</tbody>
</table>

This report was made possible by the farm families who cooperated with their farm management instructors in getting the farm records for 2017 closed out on a timely basis. The farm management instructors cited above generated Finpack year-end farm analyses. Josh Tjosaas and Ron Dvergsten, Farm Business Management Instructors, Northland Community and Technical College, and Andrew Swenson, NDSU Extension Service, databased the Finpack analyses of farms located within the Red River Valley and generated the comparative tables for this report.

A special acknowledgment is due Northland Community and Technical College, Thief River Falls, Minnesota, and the North Dakota State Board for Vocational and Technical Education for cooperation in the development of the 24th annual Red River Valley Report.
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INTRODUCTION

This report summarizes the individual farm records of farms in the Red River Valley that are enrolled in Farm Management Education programs. The current financial status of farm operators and net returns from each crop enterprise is reported. In addition to the average of all farms, the averages for the high and low net income groups are also presented. To insure anonymity, only averages of five or more farms are reported. Regional averages reports can be used by producers for comparison purposes to identify and study the areas that may need management improvement. A review of the comparative information may reveal how certain aspects of the business or enterprises excel and help answer why they are profitable. The data contained in this report should also be useful to instructors, extension agents, bankers and agricultural consultants.

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

The 2017 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.

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

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

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

The last two sections of the income statement deal with the non-cash changes in the farm business. The "Inventory Changes" and "Depreciation" sections are used to convert the cash income statement (Net Cash Farm Income) derived from the first two sections into an accrual income statement. The final adjustment is for "Gain or loss on capital sales." The bottom line, labeled "Net farm income," represents the return to the 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 $20,000 per full time operator plus 5% of value of farm production is used.
"Return of farm assets" is calculated by adding "Farm interest expense" to "Net farm income" and then subtracting the "Value of operator's labor and management."
"Average farm assets" is the average of beginning and ending total farm assets.
"Return on farm equity" is calculated by subtracting the "Value of operator's labor and management" from "Net farm income."
"Average farm equity" is the average of beginning and ending farm net worth.
"Value of farm production" is gross cash farm income minus purchased feed and feeder livestock and adjusted for inventory changes in crops, market livestock, accounts receivable and breeding livestock.

Liquidity & Repayment Capacity Measures

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

Balance Sheets

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

Statement of Cash Flows

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

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

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

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

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

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

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

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

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

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

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

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

**Rate of Return on Equity:** Rate of return on equity is, in effect, the interest rate your investment in the business earned in the past year. If assets are valued at market value, this return can be compared with returns available if the assets were liquidated and invested in alternative investments. If assets are valued at cost, this represents the actual return to the amount of equity capital you have invested in the farm business.
If your return on assets is higher than your average interest rate, your return on equity will be still higher, reflecting the fact that there are residual returns to equity capital after paying all interest expense. This is positive use of financial leverage. If your return on assets is lower than your average interest rate, your return on equity will be still lower, reflecting the fact that borrowed capital did not earn enough to pay its interest cost. This is negative financial leverage. Profitability becomes a key concern when substantial debt capital is used in the business.

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

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

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

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

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

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

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

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

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

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

**Asset Turnover:** Asset turnover is a measure of how efficiently assets are used in the business. A farm with good operating profit margin and asset turnover will show a strong rate of return on farm assets. If operating profit margin is low, the asset turnover rate must be strong, or vice versa, to maintain the rate of return on assets.
**Operating Expense Ratio:** This ratio indicates the percent of the gross farm income, which is used to pay the operating expenses. Operating expenses do not include interest or depreciation expense.

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

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

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

**Crop Production and Marketing Summary**

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

**Operator and Labor Information**

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

**Nonfarm Summary**

This table also reports nonfarm income. The figure reported is the average over all farms not just those reporting nonfarm income.
Five Year Trend of Financial Measures
Red River Valley Farm Business Management Education

Net Farm Income

Term Debt Coverage Ratio (accrual)

Rate of Return (cost)

Operating Expense Ratio

Crop Acres

Apparent Family Living

Dollars $89,691 $83,903 $77,561 $78,286 $77,967

Percent

RR on Assets 0.7 -0.8 2.2 4.2 2.5
RR on Equity -0.9 -3.4 1.3 4.5 1.7

Percent

Average 82.6 85.8 78.0 73.5 79.2
Low 20% 101.5 104.3 97.3 89.2 98.5
High 20% 72.3 73.5 70.5 68.3 68.8

Net Farm Income

Average 61,749 12,723 89,489 143,489 102,783
High 20% 279,501 232,417 355,681 411,989 431,827

Term Debt Coverage Ratio (accrual)

2013 2014 2015 2016 2017
Ratio 0.38 0.14 0.98 1.67 1.24

2013 2014 2015 2016 2017
Share Rent 48 55 49 39 31
Cash Rent 1,219 1,264 1,221 1,252 1,465
Owned 392 427 401 382 412

Crop Acres

2013 2014 2015 2016 2017
Share Rent 48 55 49 39 31
Cash Rent 1,219 1,264 1,221 1,252 1,465
Owned 392 427 401 382 412
# Farm Income Statement

**Minnesota and North Dakota Farm Business Management Education**  
**Red River Valley, 2017**  
*(Farms Sorted By Net Farm Income)*

<table>
<thead>
<tr>
<th></th>
<th>Avg. Of All Farms</th>
<th>Low 20%</th>
<th>40 - 60%</th>
<th>High 20%</th>
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<tr>
<td><strong>Number of farms</strong></td>
<td>235</td>
<td>47</td>
<td>47</td>
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<td><strong>Cash Farm Income</strong></td>
<td></td>
<td></td>
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<td></td>
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<td>Barley</td>
<td>4,732</td>
<td>9,275</td>
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<td>Beans, Black Turtle</td>
<td>870</td>
<td>-</td>
<td>-</td>
<td>1,162</td>
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<td>Beans, Cranberry</td>
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<td>Beans, Navy</td>
<td>6,946</td>
<td>8,870</td>
<td>15,578</td>
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<td>3,337</td>
<td>3,470</td>
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<td>Canola</td>
<td>264</td>
<td>-</td>
<td>-</td>
<td>1,320</td>
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<td>Corn</td>
<td>252,463</td>
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<td>215,521</td>
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<td>Corn, Ear</td>
<td>121</td>
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<td>Oats</td>
<td>31</td>
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<td>155</td>
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<td>Peas, Field</td>
<td>289</td>
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<td>Potatoes</td>
<td>9,487</td>
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<tr>
<td>Rye</td>
<td>382</td>
<td>-</td>
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<td>Soybeans</td>
<td>265,047</td>
<td>324,394</td>
<td>198,599</td>
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<td>Soybeans Seed</td>
<td>14,338</td>
<td>857</td>
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<td>Straw</td>
<td>4,900</td>
<td>1,249</td>
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<td>Sugar Beets</td>
<td>181,626</td>
<td>110,219</td>
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<td>Sunflowers</td>
<td>5,155</td>
<td>5,101</td>
<td>5,382</td>
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<tr>
<td>Wheat, Durum</td>
<td>796</td>
<td>2,122</td>
<td>312</td>
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<td>146,979</td>
<td>98,502</td>
<td>83,622</td>
<td>335,188</td>
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<td>Rented Out</td>
<td>317</td>
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<tr>
<td>Soybeans, Organic</td>
<td>494</td>
<td>-</td>
<td>94</td>
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<td>Soybeans, Food</td>
<td>8,081</td>
<td>19,456</td>
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<td>Oats, Organic</td>
<td>120</td>
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<tr>
<td>Rye, Organic</td>
<td>101</td>
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<td>-</td>
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<td>Wheat, Spring, Organic</td>
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<tr>
<td>Hay</td>
<td>361</td>
<td>1,805</td>
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<td>Other Crops</td>
<td>3,655</td>
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<td>1,326</td>
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<td>Miscellaneous crop income</td>
<td>497</td>
<td>19</td>
<td>-</td>
<td>817</td>
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<tr>
<td>Beef Cow-Calf, Beef Calves</td>
<td>1,779</td>
<td>2,514</td>
<td>486</td>
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<td>Beef Backgrounding</td>
<td>208</td>
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<td>Beef Finishing</td>
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<td>Dairy Finishing</td>
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<td>885</td>
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<td>Hogs, Farrow To Finish, Raised Hog</td>
<td>1,241</td>
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<td>Hogs, Weaning to Finish</td>
<td>5,843</td>
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<td>Misc. livestock income</td>
<td>998</td>
<td>4,640</td>
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<td>Crop government payments</td>
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<td>12,440</td>
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<td>CRP payments</td>
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<td>910</td>
<td>786</td>
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<td>Other government payments Custom</td>
<td>5,610</td>
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<tr>
<td>work income</td>
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<td>7,985</td>
<td>4,281</td>
<td>36,602</td>
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<tr>
<td>Patronage dividends, cash</td>
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## Farm Income Statement (continued)

**Minnesota and North Dakota Farm Business Management Education**

**Red River Valley, 2017**

(Farms Sorted By Net Farm Income)

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<tr>
<th></th>
<th>Avg. Of All Farms</th>
<th>Low 20%</th>
<th>40 - 60%</th>
<th>High 20%</th>
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<td><strong>Number of farms</strong></td>
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</table>
## Inventory Changes

*Minnesota and North Dakota Farm Business Management Education*

*Red River Valley, 2017*

*(Farms Sorted By Net Farm Income)*

<table>
<thead>
<tr>
<th></th>
<th>Avg. Of All Farms</th>
<th>Low 20%</th>
<th>40 - 60%</th>
<th>High 20%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of farms</td>
<td>235</td>
<td>47</td>
<td>47</td>
<td>47</td>
</tr>
<tr>
<td>Net cash farm income</td>
<td>168,558</td>
<td>57,379</td>
<td>122,334</td>
<td>398,536</td>
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### Crops and Feed

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<th>Inventory change</th>
<th>Ending inventory</th>
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<tr>
<td>Inventory change</td>
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### Market Livestock

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<th>Ending inventory</th>
<th>Beginning inventory</th>
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</thead>
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### Accts Receivable

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### Prepaid Expenses and Supplies

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### Hedging Activities

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### Other Current Assets

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### Breeding Livestock

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### Other Capital Assets

<table>
<thead>
<tr>
<th></th>
<th>Ending inventory</th>
<th>Beginning inventory</th>
<th>Inventory change</th>
<th>Ending inventory</th>
<th>Beginning inventory</th>
<th>Inventory change</th>
<th>Ending inventory</th>
<th>Beginning inventory</th>
<th>Inventory change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ending inventory</td>
<td>308,700</td>
<td>285,593</td>
<td>8,418</td>
<td>195,884</td>
<td>182,968</td>
<td>3,148</td>
<td>190,312</td>
<td>182,500</td>
<td>4,812</td>
</tr>
<tr>
<td>Capital sales</td>
<td>1,324</td>
<td>-</td>
<td>1,324</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>5,165</td>
<td>-</td>
</tr>
<tr>
<td>Beginning inventory</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Capital purchases</td>
<td>16,013</td>
<td>16,013</td>
<td>-</td>
<td>9,769</td>
<td>9,769</td>
<td>-</td>
<td>3,298</td>
<td>3,298</td>
<td>41,383</td>
</tr>
<tr>
<td>Depreciation, capital adjust</td>
<td>8,418</td>
<td>3,148</td>
<td>4,515</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

### Accounts Payable

<table>
<thead>
<tr>
<th></th>
<th>Beginning inventory</th>
<th>Ending inventory</th>
<th>Inventory change</th>
<th>Ending inventory</th>
<th>Beginning inventory</th>
<th>Inventory change</th>
<th>Ending inventory</th>
<th>Beginning inventory</th>
<th>Inventory change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beginning inventory</td>
<td>34,354</td>
<td>37,735</td>
<td>-3,381</td>
<td>45,900</td>
<td>55,440</td>
<td>-9,540</td>
<td>28,366</td>
<td>16,285</td>
<td>12,081</td>
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<tr>
<td>Ending inventory</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inventory change</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

### Accrued Interest

<table>
<thead>
<tr>
<th></th>
<th>Beginning inventory</th>
<th>Ending inventory</th>
<th>Inventory change</th>
<th>Beginning inventory</th>
<th>Ending inventory</th>
<th>Inventory change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beginning inventory</td>
<td>19,734</td>
<td>20,114</td>
<td>-380</td>
<td>25,851</td>
<td>26,472</td>
<td>-621</td>
</tr>
<tr>
<td>Ending inventory</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inventory change</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Total inventory change 9,383 -96,809 -9,937 153,164

Net operating profit 177,941 -39,430 112,397 551,700
### Depreciation

**Minnesota and North Dakota Farm Business Management Education**  
**Red River Valley, 2017**  
*(Farms Sorted By Net Farm Income)*

<table>
<thead>
<tr>
<th>Avg. Of All Farms</th>
<th>Low 20%</th>
<th>40 - 60%</th>
<th>High 20%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of farms</td>
<td>235</td>
<td>47</td>
<td>47</td>
</tr>
<tr>
<td>Net operating profit</td>
<td>177,941</td>
<td>-39,430</td>
<td>112,397</td>
</tr>
</tbody>
</table>

#### Machinery and Equipment

- **Ending inventory**
  - Avg. Of All Farms: 668,906
  - Low 20%: 667,899
  - 40 - 60%: 488,081
  - High 20%: 1,084,680

- **Capital sales**
  - Avg. Of All Farms: 11,074
  - Low 20%: 12,815
  - 40 - 60%: 11,627
  - High 20%: 11,312

- **Beginning inventory**
  - Avg. Of All Farms: 669,999
  - Low 20%: 693,719
  - 40 - 60%: 493,591
  - High 20%: 1,038,314

- **Capital purchases**
  - Avg. Of All Farms: 73,387
  - Low 20%: 50,382
  - 40 - 60%: 51,134
  - High 20%: 161,397

- **Depreciation, capital adjust.**
  - Avg. Of All Farms: -63,405
  - Low 20%: -63,387
  - 40 - 60%: -45,016
  - High 20%: -103,718

#### Titled Vehicles

- **Ending inventory**
  - Avg. Of All Farms: 44,381
  - Low 20%: 46,534
  - 40 - 60%: 34,087
  - High 20%: 70,844

- **Capital sales**
  - Avg. Of All Farms: 626
  - Low 20%: 578
  - 40 - 60%: 502
  - High 20%: 1,473

- **Beginning inventory**
  - Avg. Of All Farms: 43,167
  - Low 20%: 51,164
  - 40 - 60%: 30,591
  - High 20%: 64,253

- **Capital purchases**
  - Avg. Of All Farms: 7,381
  - Low 20%: 1,755
  - 40 - 60%: 8,095
  - High 20%: 16,211

- **Depreciation, capital adjust.**
  - Avg. Of All Farms: -5,540
  - Low 20%: -5,808
  - 40 - 60%: -4,097
  - High 20%: -8,148

#### Buildings and Improvements

- **Ending inventory**
  - Avg. Of All Farms: 244,353
  - Low 20%: 288,207
  - 40 - 60%: 166,650
  - High 20%: 405,040

- **Capital sales**
  - Avg. Of All Farms: 142
  - Low 20%: 395
  - 40 - 60%: 234
  - High 20%: -

- **Beginning inventory**
  - Avg. Of All Farms: 238,092
  - Low 20%: 287,751
  - 40 - 60%: 168,384
  - High 20%: 388,423

- **Capital purchases**
  - Avg. Of All Farms: 13,355
  - Low 20%: 8,875
  - 40 - 60%: 5,517
  - High 20%: 28,000

- **Depreciation, capital adjust.**
  - Avg. Of All Farms: -6,952
  - Low 20%: -8,025
  - 40 - 60%: -7,017
  - High 20%: -11,383

- **Total depreciation, capital adj.**
  - Avg. Of All Farms: -75,897
  - Low 20%: -77,220
  - 40 - 60%: -56,130
  - High 20%: -123,248

- **Net farm income from operations**
  - Avg. Of All Farms: 102,043
  - Low 20%: -116,650
  - 40 - 60%: 56,268
  - High 20%: 428,452

- **Gain or loss on capital sales**
  - Avg. Of All Farms: 739
  - Low 20%: -198
  - 40 - 60%: 303
  - High 20%: 3,376

- **Net farm income**
  - Avg. Of All Farms: 102,783
  - Low 20%: -116,848
  - 40 - 60%: 56,571
  - High 20%: 431,827
## Profitability Measures

**Minnesota and North Dakota Farm Business Management Education**  
**Red River Valley, 2017**  
*(Farms Sorted By Net Farm Income)*

<table>
<thead>
<tr>
<th></th>
<th>Avg. Of All Farms</th>
<th>Low 20%</th>
<th>40 - 60%</th>
<th>High 20%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of farms</td>
<td>235</td>
<td>47</td>
<td>47</td>
<td>47</td>
</tr>
<tr>
<td><strong>Profitability (assets valued at cost)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Net farm income from operations</td>
<td>102,043</td>
<td>-116,650</td>
<td>56,268</td>
<td>428,452</td>
</tr>
<tr>
<td>Rate of return on assets</td>
<td>2.5 %</td>
<td>-4.6 %</td>
<td>1.9 %</td>
<td>7.2 %</td>
</tr>
<tr>
<td>Rate of return on equity</td>
<td>1.7 %</td>
<td>-12.5 %</td>
<td>0.5 %</td>
<td>9.1 %</td>
</tr>
<tr>
<td>Operating profit margin</td>
<td>7.0 %</td>
<td>-12.5 %</td>
<td>6.0 %</td>
<td>18.6 %</td>
</tr>
<tr>
<td>Asset turnover rate</td>
<td>36.3 %</td>
<td>36.4 %</td>
<td>31.7 %</td>
<td>38.7 %</td>
</tr>
<tr>
<td>Farm interest expense</td>
<td>43,328</td>
<td>55,082</td>
<td>34,538</td>
<td>52,766</td>
</tr>
<tr>
<td>Value of operator lbr and mgmt.</td>
<td>72,218</td>
<td>69,144</td>
<td>50,064</td>
<td>125,182</td>
</tr>
<tr>
<td>Return on farm assets</td>
<td>73,153</td>
<td>-130,712</td>
<td>40,742</td>
<td>356,036</td>
</tr>
<tr>
<td>Average farm assets</td>
<td>2,886,845</td>
<td>2,869,294</td>
<td>2,137,190</td>
<td>4,954,073</td>
</tr>
<tr>
<td>Return on farm equity</td>
<td>29,825</td>
<td>-185,794</td>
<td>6,204</td>
<td>303,270</td>
</tr>
<tr>
<td>Average farm equity</td>
<td>1,729,649</td>
<td>1,489,238</td>
<td>1,258,669</td>
<td>3,343,569</td>
</tr>
<tr>
<td>Value of farm production</td>
<td>1,048,852</td>
<td>1,043,359</td>
<td>678,287</td>
<td>1,915,960</td>
</tr>
</tbody>
</table>


# Liquidity & Repayment Capacity Measures

*Minnesota and North Dakota Farm Business Management Education*

*Red River Valley, 2017*

*(Farms Sorted By Net Farm Income)*

<table>
<thead>
<tr>
<th>Avg. Of</th>
<th>Low 20%</th>
<th>40 - 60%</th>
<th>High 20%</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Number of farms</strong></td>
<td>235</td>
<td>47</td>
<td>47</td>
</tr>
<tr>
<td><strong>Liquidity</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Current ratio</td>
<td>1.62</td>
<td>1.10</td>
<td>1.58</td>
</tr>
<tr>
<td>Working capital</td>
<td>323,487</td>
<td>69,859</td>
<td>206,916</td>
</tr>
<tr>
<td>Working capital to gross inc</td>
<td>30.4 %</td>
<td>6.6 %</td>
<td>30.5 %</td>
</tr>
<tr>
<td>Current assets</td>
<td>846,472</td>
<td>735,593</td>
<td>560,867</td>
</tr>
<tr>
<td>Current liabilities</td>
<td>522,985</td>
<td>665,735</td>
<td>353,951</td>
</tr>
<tr>
<td>Gross revenues (accrual)</td>
<td>1,063,071</td>
<td>1,052,394</td>
<td>678,417</td>
</tr>
<tr>
<td><strong>Repayment capacity</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Net farm income from operations</td>
<td>102,043</td>
<td>-116,650</td>
<td>56,268</td>
</tr>
<tr>
<td>Depreciation</td>
<td>75,897</td>
<td>77,220</td>
<td>56,130</td>
</tr>
<tr>
<td>Personal income</td>
<td>25,262</td>
<td>36,611</td>
<td>33,587</td>
</tr>
<tr>
<td>Family living/owner withdrawals</td>
<td>-77,967</td>
<td>-67,290</td>
<td>-66,794</td>
</tr>
<tr>
<td>Cash discrepancy</td>
<td>-81</td>
<td>147</td>
<td>36</td>
</tr>
<tr>
<td>Payments on personal debt</td>
<td>-4,827</td>
<td>-4,555</td>
<td>-3,316</td>
</tr>
<tr>
<td>Income taxes paid</td>
<td>-21,424</td>
<td>-11,993</td>
<td>-13,815</td>
</tr>
<tr>
<td>Interest on term debt</td>
<td>29,937</td>
<td>33,933</td>
<td>26,921</td>
</tr>
<tr>
<td>Capital debt repayment capacity</td>
<td>128,921</td>
<td>-52,724</td>
<td>88,982</td>
</tr>
<tr>
<td>Scheduled term debt payments</td>
<td>-104,175</td>
<td>-118,395</td>
<td>-83,105</td>
</tr>
<tr>
<td>Capital debt repayment margin</td>
<td>24,747</td>
<td>-171,120</td>
<td>5,877</td>
</tr>
<tr>
<td>Cash replacement allowance</td>
<td>-46,868</td>
<td>-50,156</td>
<td>-29,894</td>
</tr>
<tr>
<td>Replacement margin</td>
<td>-22,122</td>
<td>-221,276</td>
<td>-24,016</td>
</tr>
<tr>
<td>Term debt coverage ratio</td>
<td>1.24</td>
<td>-0.45</td>
<td>1.07</td>
</tr>
<tr>
<td>Replacement coverage ratio</td>
<td>0.85</td>
<td>-0.31</td>
<td>0.79</td>
</tr>
</tbody>
</table>
## Balance Sheet at Cost Values

### Minnesota and North Dakota Farm Business Management Education

**Red River Valley, 2017**

(Farms Sorted By Net Farm Income)

<table>
<thead>
<tr>
<th></th>
<th>Avg. Of All Farms</th>
<th>Low 20%</th>
<th>40 - 60%</th>
<th>High 20%</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Number of farms</strong></td>
<td>235</td>
<td>47</td>
<td>47</td>
<td>47</td>
</tr>
</tbody>
</table>

### Assets

#### Current Farm Assets

<table>
<thead>
<tr>
<th>Item</th>
<th>Avg. All Farms</th>
<th>Low 20%</th>
<th>40 - 60%</th>
<th>High 20%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash and checking balance</td>
<td>53,713</td>
<td>5,502</td>
<td>45,336</td>
<td>165,191</td>
</tr>
<tr>
<td>Prepaid expenses &amp; supplies</td>
<td>86,392</td>
<td>55,638</td>
<td>63,498</td>
<td>199,087</td>
</tr>
<tr>
<td>Growing crops</td>
<td>13</td>
<td>-</td>
<td>-</td>
<td>65</td>
</tr>
<tr>
<td>Accounts receivable</td>
<td>76,776</td>
<td>94,561</td>
<td>62,270</td>
<td>94,849</td>
</tr>
<tr>
<td>Hedging accounts</td>
<td>9,132</td>
<td>9,484</td>
<td>4,294</td>
<td>20,237</td>
</tr>
<tr>
<td>Crops held for sale or feed</td>
<td>608,244</td>
<td>566,679</td>
<td>383,650</td>
<td>1,202,473</td>
</tr>
<tr>
<td>Market livestock held for sale</td>
<td>7,343</td>
<td>2,305</td>
<td>1,437</td>
<td>16,264</td>
</tr>
<tr>
<td>Other current assets</td>
<td>4,859</td>
<td>1,425</td>
<td>382</td>
<td>21,478</td>
</tr>
<tr>
<td><strong>Total current farm assets</strong></td>
<td>846,472</td>
<td>735,593</td>
<td>560,867</td>
<td>1,719,644</td>
</tr>
</tbody>
</table>

#### Intermediate Farm Assets

<table>
<thead>
<tr>
<th>Item</th>
<th>Avg. All Farms</th>
<th>Low 20%</th>
<th>40 - 60%</th>
<th>High 20%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Breeding livestock</td>
<td>3,783</td>
<td>2,667</td>
<td>1,047</td>
<td>13,584</td>
</tr>
<tr>
<td>Machinery and equipment</td>
<td>668,906</td>
<td>667,899</td>
<td>488,081</td>
<td>1,084,680</td>
</tr>
<tr>
<td>Titled vehicles</td>
<td>44,381</td>
<td>46,534</td>
<td>34,087</td>
<td>70,844</td>
</tr>
<tr>
<td>Other intermediate assets</td>
<td>224,551</td>
<td>136,167</td>
<td>110,897</td>
<td>542,848</td>
</tr>
<tr>
<td><strong>Total intermediate farm assets</strong></td>
<td>941,622</td>
<td>853,266</td>
<td>634,112</td>
<td>1,711,955</td>
</tr>
</tbody>
</table>

#### Long Term Farm Assets

<table>
<thead>
<tr>
<th>Item</th>
<th>Avg. All Farms</th>
<th>Low 20%</th>
<th>40 - 60%</th>
<th>High 20%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Farm land</td>
<td>805,640</td>
<td>886,008</td>
<td>693,774</td>
<td>1,143,360</td>
</tr>
<tr>
<td>Buildings and improvements</td>
<td>244,353</td>
<td>288,207</td>
<td>166,650</td>
<td>405,040</td>
</tr>
<tr>
<td>Other long-term assets</td>
<td>84,150</td>
<td>59,718</td>
<td>79,415</td>
<td>144,086</td>
</tr>
<tr>
<td><strong>Total long-term farm assets</strong></td>
<td>1,134,142</td>
<td>1,233,932</td>
<td>939,839</td>
<td>1,692,468</td>
</tr>
<tr>
<td><strong>Total Farm Assets</strong></td>
<td>2,922,236</td>
<td>2,822,792</td>
<td>2,134,819</td>
<td>5,124,085</td>
</tr>
</tbody>
</table>

#### Total Nonfarm Assets

<table>
<thead>
<tr>
<th>Item</th>
<th>Avg. All Farms</th>
<th>Low 20%</th>
<th>40 - 60%</th>
<th>High 20%</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total Nonfarm Assets</strong></td>
<td>332,861</td>
<td>246,335</td>
<td>277,340</td>
<td>519,883</td>
</tr>
<tr>
<td><strong>Total Assets</strong></td>
<td>3,255,097</td>
<td>3,069,127</td>
<td>2,412,158</td>
<td>5,643,967</td>
</tr>
</tbody>
</table>

### Liabilities

#### Current Farm Liabilities

<table>
<thead>
<tr>
<th>Item</th>
<th>Avg. All Farms</th>
<th>Low 20%</th>
<th>40 - 60%</th>
<th>High 20%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accrued interest</td>
<td>20,114</td>
<td>26,472</td>
<td>15,621</td>
<td>19,395</td>
</tr>
<tr>
<td>Accounts payable</td>
<td>37,735</td>
<td>55,440</td>
<td>16,285</td>
<td>54,476</td>
</tr>
<tr>
<td>Current notes</td>
<td>390,123</td>
<td>501,483</td>
<td>266,013</td>
<td>601,478</td>
</tr>
<tr>
<td>Principal due on term debt</td>
<td>75,012</td>
<td>82,340</td>
<td>56,032</td>
<td>112,999</td>
</tr>
<tr>
<td><strong>Total current farm liabilities</strong></td>
<td>522,985</td>
<td>665,735</td>
<td>353,951</td>
<td>788,348</td>
</tr>
</tbody>
</table>

#### Total Intermediate Farm Liabilities

<table>
<thead>
<tr>
<th>Item</th>
<th>Avg. All Farms</th>
<th>Low 20%</th>
<th>40 - 60%</th>
<th>High 20%</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total intermediate farm liabilities</strong></td>
<td>155,051</td>
<td>159,201</td>
<td>101,638</td>
<td>221,794</td>
</tr>
</tbody>
</table>

#### Total Long Term Farm Liabilities

<table>
<thead>
<tr>
<th>Item</th>
<th>Avg. All Farms</th>
<th>Low 20%</th>
<th>40 - 60%</th>
<th>High 20%</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total farm liabilities</strong></td>
<td>1,183,555</td>
<td>1,411,909</td>
<td>874,384</td>
<td>1,659,414</td>
</tr>
<tr>
<td><strong>Total nonfarm liabilities</strong></td>
<td>84,217</td>
<td>69,070</td>
<td>51,331</td>
<td>153,432</td>
</tr>
<tr>
<td><strong>Total liabilities</strong></td>
<td>1,267,771</td>
<td>1,480,979</td>
<td>925,715</td>
<td>1,812,847</td>
</tr>
</tbody>
</table>

#### Net worth (farm and nonfarm)

<table>
<thead>
<tr>
<th>Item</th>
<th>Avg. All Farms</th>
<th>Low 20%</th>
<th>40 - 60%</th>
<th>High 20%</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Net worth (farm and nonfarm)</strong></td>
<td>1,987,326</td>
<td>1,588,148</td>
<td>1,486,444</td>
<td>3,831,121</td>
</tr>
<tr>
<td><strong>Net worth change</strong></td>
<td>41,358</td>
<td>-129,141</td>
<td>22,271</td>
<td>276,315</td>
</tr>
<tr>
<td>Percent net worth change</td>
<td>2 %</td>
<td>-8 %</td>
<td>2 %</td>
<td>8 %</td>
</tr>
</tbody>
</table>

### Ratio Analysis

<table>
<thead>
<tr>
<th>Item</th>
<th>Avg. All Farms</th>
<th>Low 20%</th>
<th>40 - 60%</th>
<th>High 20%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current farm liabilities / assets</td>
<td>62 %</td>
<td>91 %</td>
<td>63 %</td>
<td>46 %</td>
</tr>
<tr>
<td>Intermediate farm liabilities / assets</td>
<td>16 %</td>
<td>19 %</td>
<td>16 %</td>
<td>13 %</td>
</tr>
<tr>
<td>Long term farm liabilities / assets</td>
<td>45 %</td>
<td>48 %</td>
<td>45 %</td>
<td>38 %</td>
</tr>
<tr>
<td><strong>Total debt to asset ratio</strong></td>
<td>39 %</td>
<td>48 %</td>
<td>38 %</td>
<td>32 %</td>
</tr>
<tr>
<td></td>
<td>Avg. Of All Farms</td>
<td>Low 20%</td>
<td>40 - 60%</td>
<td>High 20%</td>
</tr>
<tr>
<td>--------------------------------</td>
<td>-------------------</td>
<td>---------</td>
<td>----------</td>
<td>----------</td>
</tr>
<tr>
<td>Number of farms</td>
<td>235</td>
<td>47</td>
<td>47</td>
<td>47</td>
</tr>
<tr>
<td><strong>Assets</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Current Farm Assets</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cash and checking balance</td>
<td>53,713</td>
<td>5,502</td>
<td>45,336</td>
<td>165,191</td>
</tr>
<tr>
<td>Prepaid expenses &amp; supplies</td>
<td>86,392</td>
<td>55,638</td>
<td>63,498</td>
<td>199,087</td>
</tr>
<tr>
<td>Growing crops</td>
<td>76,776</td>
<td>94,561</td>
<td>62,270</td>
<td>94,849</td>
</tr>
<tr>
<td>Accounts receivable</td>
<td>9,132</td>
<td>9,484</td>
<td>4,294</td>
<td>20,237</td>
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<tr>
<td><strong>Intermediate Farm Assets</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Breeding livestock</td>
<td>4,096</td>
<td>3,144</td>
<td>1,372</td>
<td>14,018</td>
</tr>
<tr>
<td>Machinery and equipment</td>
<td>845,121</td>
<td>904,409</td>
<td>575,411</td>
<td>1,335,382</td>
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<tr>
<td>Titled vehicles</td>
<td>54,873</td>
<td>501,483</td>
<td>37,656</td>
<td>90,268</td>
</tr>
<tr>
<td>Other intermediate assets</td>
<td>296,432</td>
<td>147,538</td>
<td>126,764</td>
<td>787,720</td>
</tr>
<tr>
<td>Total intermediate farm assets</td>
<td>1,200,522</td>
<td>1,115,950</td>
<td>741,204</td>
<td>2,227,387</td>
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<tr>
<td><strong>Long Term Farm Assets</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Farm land</td>
<td>1,459,686</td>
<td>1,323,615</td>
<td>1,253,263</td>
<td>2,300,653</td>
</tr>
<tr>
<td>Buildings and improvements</td>
<td>282,150</td>
<td>340,641</td>
<td>191,998</td>
<td>462,698</td>
</tr>
<tr>
<td>Other long-term assets</td>
<td>101,952</td>
<td>83,518</td>
<td>101,994</td>
<td>163,669</td>
</tr>
<tr>
<td>Total long-term farm assets</td>
<td>1,843,787</td>
<td>1,747,774</td>
<td>1,547,256</td>
<td>2,927,020</td>
</tr>
<tr>
<td>Total Farm Assets</td>
<td>3,890,781</td>
<td>3,599,317</td>
<td>2,849,326</td>
<td>6,874,050</td>
</tr>
<tr>
<td><strong>Total Nonfarm Assets</strong></td>
<td>413,918</td>
<td>303,651</td>
<td>326,582</td>
<td>639,502</td>
</tr>
<tr>
<td><strong>Total Assets</strong></td>
<td>4,304,699</td>
<td>3,902,968</td>
<td>3,175,908</td>
<td>7,513,552</td>
</tr>
<tr>
<td><strong>Liabilities</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Current Farm Liabilities</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accrued interest</td>
<td>20,114</td>
<td>26,472</td>
<td>15,621</td>
<td>19,395</td>
</tr>
<tr>
<td>Accounts payable</td>
<td>37,735</td>
<td>55,440</td>
<td>16,285</td>
<td>54,476</td>
</tr>
<tr>
<td>Current notes</td>
<td>390,123</td>
<td>501,483</td>
<td>266,013</td>
<td>601,478</td>
</tr>
<tr>
<td>Principal due on term debt</td>
<td>75,012</td>
<td>82,340</td>
<td>56,032</td>
<td>112,999</td>
</tr>
<tr>
<td>Total current farm liabilities</td>
<td>522,985</td>
<td>665,735</td>
<td>353,951</td>
<td>788,348</td>
</tr>
<tr>
<td>Total intermediate farm liabs</td>
<td>155,051</td>
<td>159,201</td>
<td>101,638</td>
<td>221,794</td>
</tr>
<tr>
<td>Total long term farm liabilities</td>
<td>505,519</td>
<td>586,973</td>
<td>418,795</td>
<td>649,272</td>
</tr>
<tr>
<td>Total farm liabilities</td>
<td>1,183,555</td>
<td>1,411,909</td>
<td>874,384</td>
<td>1,659,414</td>
</tr>
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<td>84,217</td>
<td>69,070</td>
<td>51,331</td>
<td>153,432</td>
</tr>
<tr>
<td>Total liabs excluding deferreds</td>
<td>1,267,771</td>
<td>1,480,979</td>
<td>925,715</td>
<td>1,812,847</td>
</tr>
<tr>
<td>Total deferred liabilities</td>
<td>317,600</td>
<td>255,726</td>
<td>167,519</td>
<td>738,155</td>
</tr>
<tr>
<td>Total liabilities</td>
<td>1,585,372</td>
<td>1,736,705</td>
<td>1,093,234</td>
<td>2,551,002</td>
</tr>
<tr>
<td><strong>Retained earnings</strong></td>
<td>1,987,326</td>
<td>1,588,148</td>
<td>1,486,444</td>
<td>3,831,121</td>
</tr>
<tr>
<td><strong>Market valuation equity</strong></td>
<td>732,002</td>
<td>578,115</td>
<td>596,231</td>
<td>1,131,429</td>
</tr>
<tr>
<td><strong>Net worth (farm and nonfarm)</strong></td>
<td>2,719,328</td>
<td>2,166,262</td>
<td>2,082,275</td>
<td>4,962,550</td>
</tr>
<tr>
<td><strong>Net worth excluding deferreds</strong></td>
<td>3,036,928</td>
<td>2,421,988</td>
<td>2,250,194</td>
<td>5,700,705</td>
</tr>
<tr>
<td><strong>Net worth change</strong></td>
<td>85,662</td>
<td>-56,274</td>
<td>43,900</td>
<td>301,821</td>
</tr>
<tr>
<td>Percent net worth change</td>
<td>3 %</td>
<td>-3 %</td>
<td>2 %</td>
<td>6 %</td>
</tr>
<tr>
<td><strong>Ratio Analysis</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Current farm liabilities / assets</td>
<td>62 %</td>
<td>91 %</td>
<td>63 %</td>
<td>46 %</td>
</tr>
<tr>
<td>Intermediate farm liab. / assets</td>
<td>13 %</td>
<td>14 %</td>
<td>14 %</td>
<td>10 %</td>
</tr>
<tr>
<td>Long term farm liab. / assets</td>
<td>27 %</td>
<td>34 %</td>
<td>27 %</td>
<td>22 %</td>
</tr>
<tr>
<td>Total debt to asset ratio</td>
<td>37 %</td>
<td>44 %</td>
<td>34 %</td>
<td>34 %</td>
</tr>
<tr>
<td>Debt to assets excl deferreds</td>
<td>29 %</td>
<td>38 %</td>
<td>29 %</td>
<td>24 %</td>
</tr>
</tbody>
</table>
## Statement Of Cash Flows

*Minnesota and North Dakota Farm Business Management Education*

*Red River Valley, 2017*

*(Farms Sorted By Net Farm Income)*

### Avg. Of All Farms | Low 20% | 40 - 60% | High 20%
---|---|---|---
Number of farms | 235 | 47 | 47 | 47

| | Beginning cash (farm & nonfarm) | 62,654 | 41,491 | 63,773 | 129,987 |

### Cash Provided By Operating Activities

| | Gross cash farm income | 1,046,483 | 1,108,818 | 702,594 | 1,806,581 |
| | Total cash farm expense | -877,925 | -1,051,439 | -580,260 | -1,408,045 |
| | Net cash from hedging transactions | 248 | -4,844 | -1,608 | 10,253 |

| | Cash provided by operating | 168,806 | 52,536 | 120,726 | 408,789 |

### Cash Provided By Investing Activities

| | Sale of breeding livestock | 86 | 114 | 317 | - |
| | Sale of machinery & equipment | 10,933 | 12,377 | 11,911 | 11,665 |
| | Sale of titled vehicles | 740 | 818 | 520 | 1,782 |
| | Sale of farm land | 4,900 | 746 | - | 6,624 |
| | Sale of farm buildings | 142 | 395 | 234 | - |
| | Sale of other farm assets | 2,103 | - | - | 7,685 |
| | Sale of nonfarm assets | 5,707 | 9,885 | 2,633 | 6,028 |
| | Purchase of breeding livestock | -996 | - | - | -4,734 |
| | Purchase of machinery & equip. | -73,387 | -50,382 | -51,134 | -161,397 |
| | Purchase of farm land | -36,544 | -37,321 | -9,061 | -41,515 |
| | Purchase of farm buildings | -13,355 | -8,875 | -5,517 | -28,000 |
| | Purchase of other farm assets | -16,013 | -9,769 | -3,298 | -41,383 |
| | Purchase of nonfarm assets | -26,345 | -19,241 | -9,596 | -62,040 |

| | Cash provided by investing | -149,410 | -103,009 | -71,084 | -321,495 |

### Cash Provided By Financing Activities

| | Money borrowed | 510,347 | 596,910 | 340,659 | 831,284 |
| | Principal payments | -454,285 | -545,753 | -338,348 | -713,885 |
| | Personal income | 25,262 | 36,611 | 33,587 | 12,374 |
| | Family living/owner withdrawals | -77,967 | -67,290 | -66,794 | -121,424 |
| | Income and social security tax | -20,978 | -11,878 | -12,459 | -49,503 |
| | Capital contributions | 24 | - | - | - |
| | Capital distributions | -1,611 | -379 | - | -2,888 |
| | Dividends paid | - | - | - | - |
| | Cash gifts and inheritances | 7,456 | 15,842 | 2,848 | 4,826 |
| | Gifts given | -1,984 | -426 | -4,827 | -3,039 |
| | Other cash flows | - | - | - | - |

| | Cash provided by financing | -13,737 | 23,637 | -45,333 | -42,255 |

| | Net change in cash balance | 5,660 | -26,836 | 4,309 | 45,038 |
| | Ending cash (farm & nonfarm) | 68,233 | 14,802 | 68,119 | 174,927 |
| | Discrepancy | 81 | -147 | -36 | 98 |
# Financial Standards Measures

*Minnesota and North Dakota Farm Business Management Education*

*Red River Valley, 2017*

*(Farms Sorted By Net Farm Income)*

<table>
<thead>
<tr>
<th></th>
<th>Avg. Of All Farms</th>
<th>Low 20%</th>
<th>40 - 60%</th>
<th>High 20%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of farms</td>
<td>235</td>
<td>47</td>
<td>47</td>
<td>47</td>
</tr>
<tr>
<td><strong>Liquidity</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Current ratio</td>
<td>1.62</td>
<td>1.10</td>
<td>1.58</td>
<td>2.18</td>
</tr>
<tr>
<td>Working capital</td>
<td>323,487</td>
<td>69,859</td>
<td>206,916</td>
<td>931,296</td>
</tr>
<tr>
<td>Working capital to gross inc</td>
<td>30.4 %</td>
<td>6.6 %</td>
<td>30.5 %</td>
<td>48.0 %</td>
</tr>
<tr>
<td><strong>Solvency (market)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Farm debt to asset ratio</td>
<td>38 %</td>
<td>46 %</td>
<td>36 %</td>
<td>35 %</td>
</tr>
<tr>
<td>Farm equity to asset ratio</td>
<td>62 %</td>
<td>54 %</td>
<td>64 %</td>
<td>65 %</td>
</tr>
<tr>
<td>Farm debt to equity ratio</td>
<td>0.62</td>
<td>0.86</td>
<td>0.57</td>
<td>0.53</td>
</tr>
<tr>
<td><strong>Profitability (cost)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rate of return on farm assets</td>
<td>2.5 %</td>
<td>-4.6 %</td>
<td>1.9 %</td>
<td>7.2 %</td>
</tr>
<tr>
<td>Rate of return on farm equity</td>
<td>1.7 %</td>
<td>-12.5 %</td>
<td>0.5 %</td>
<td>9.1 %</td>
</tr>
<tr>
<td>Operating profit margin</td>
<td>7.0 %</td>
<td>-12.5 %</td>
<td>6.0 %</td>
<td>18.6 %</td>
</tr>
<tr>
<td>Net farm income</td>
<td>102,783</td>
<td>-116,848</td>
<td>56,571</td>
<td>431,827</td>
</tr>
<tr>
<td>EBITDA</td>
<td>221,269</td>
<td>15,652</td>
<td>146,935</td>
<td>604,466</td>
</tr>
<tr>
<td><strong>Repayment Capacity</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Capital debt repayment capacity</td>
<td>128,921</td>
<td>-52,724</td>
<td>88,982</td>
<td>420,257</td>
</tr>
<tr>
<td>Capital debt repayment margin</td>
<td>24,747</td>
<td>-171,120</td>
<td>5,877</td>
<td>272,692</td>
</tr>
<tr>
<td>Replacement margin</td>
<td>-22,122</td>
<td>-221,276</td>
<td>-24,016</td>
<td>198,434</td>
</tr>
<tr>
<td>Term debt coverage ratio</td>
<td>1.24</td>
<td>-0.45</td>
<td>1.07</td>
<td>2.85</td>
</tr>
<tr>
<td>Replacement coverage ratio</td>
<td>0.85</td>
<td>-0.31</td>
<td>0.79</td>
<td>1.89</td>
</tr>
<tr>
<td><strong>Efficiency</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asset turnover rate (cost)</td>
<td>36.3 %</td>
<td>36.4 %</td>
<td>31.7 %</td>
<td>38.7 %</td>
</tr>
<tr>
<td>Operating expense ratio</td>
<td>79.2 %</td>
<td>98.5 %</td>
<td>78.3 %</td>
<td>68.8 %</td>
</tr>
<tr>
<td>Depreciation expense ratio</td>
<td>7.1 %</td>
<td>7.3 %</td>
<td>8.3 %</td>
<td>6.4 %</td>
</tr>
<tr>
<td>Interest expense ratio</td>
<td>4.1 %</td>
<td>5.2 %</td>
<td>5.1 %</td>
<td>2.7 %</td>
</tr>
<tr>
<td>Net farm income ratio</td>
<td>9.7 %</td>
<td>-11.1 %</td>
<td>8.3 %</td>
<td>22.3 %</td>
</tr>
</tbody>
</table>
### Crop Production and Marketing Summary

*Minnesota and North Dakota Farm Business Management Education*

*Red River Valley, 2017*

*(Farms Sorted By Net Farm Income)*

<table>
<thead>
<tr>
<th></th>
<th>Avg. Of All Farms</th>
<th>Low 20%</th>
<th>40 - 60%</th>
<th>High 20%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of farms</td>
<td>235</td>
<td>47</td>
<td>47</td>
<td>47</td>
</tr>
</tbody>
</table>

#### Acreage Summary

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total acres owned</td>
<td>460</td>
<td>375</td>
<td>447</td>
<td>720</td>
</tr>
<tr>
<td>Total crop acres</td>
<td>1,907</td>
<td>2,113</td>
<td>1,326</td>
<td>3,130</td>
</tr>
<tr>
<td>Crop acres owned</td>
<td>412</td>
<td>317</td>
<td>425</td>
<td>656</td>
</tr>
<tr>
<td>Crop acres cash rented</td>
<td>1,465</td>
<td>1,761</td>
<td>850</td>
<td>2,446</td>
</tr>
<tr>
<td>Crop acres share rented</td>
<td>31</td>
<td>36</td>
<td>51</td>
<td>28</td>
</tr>
<tr>
<td>Total pasture acres</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Percent crop acres owned</td>
<td>22 %</td>
<td>15 %</td>
<td>32 %</td>
<td>21 %</td>
</tr>
</tbody>
</table>

|                        |                  |         |          |          |
| Mach invest/crop acre cost | 374            | 345     | 395      | 361      |
| Mach invest/crop acre market | 470         | 458     | 464      | 447      |

#### Average Price Received (Cash Sales Only)

|                        |                  |         |          |          |
| Soybeans per bushel    | 9.06             | 8.94    | 9.07     | 9.09     |
| Wheat, Spring per bushel| 5.51            | 5.58    | 5.31     | 5.52     |
| Corn per bushel        | 3.02             | 2.94    | 3.02     | 3.09     |
| Soybeans Seed per bushel| 10.94        | -       | -        | 10.78    |
| Soybeans, Food per bushel| 13.13        | -       | -        | -        |
| Beans, Pinto per cwt   | 25.33            | -       | -        | -        |
| Sunflowers per cwt     | 18.84            | -       | -        | -        |
| Barley per bushel      | 4.46             | -       | -        | -        |
| Beans, Navy per cwt    | 26.01            | -       | -        | -        |
| Hay, Alfalfa per ton   | 94.68            | -       | -        | -        |

#### Average Yield Per Acre

|                        |                  |         |          |          |
| Soybeans (bushel)      | 39.12            | 40.21   | 38.07    | 39.08    |
| Corn (bushel)          | 177.79           | 181.34  | 169.32   | 174.64   |
| Wheat, Spring (bushel) | 74.36            | 70.97   | 74.10    | 76.04    |
| Sugar Beets (ton)      | 30.72            | 27.45   | 30.08    | 31.49    |
| Soybeans Seed (bushel) | 40.12            | 38.45   | -        | 38.88    |
| Soybeans, Food (bushel)| 33.59            | -       | 38.02    | -        |
| Barley (bushel)        | 89.68            | 81.15   | -        | -        |
| Beans, Navy (cwt)      | 19.98            | -       | 19.15    | -        |
| Beans, Pinto (cwt)     | 17.81            | -       | -        | 17.21    |
| Hay, Alfalfa (ton)     | 2.84             | -       | -        | -        |
| Sunflowers (cwt)       | 22.67            | -       | -        | -        |
## Operator and Labor Information

**Minnesota and North Dakota Farm Business Management Education**

**Red River Valley, 2017**

*(Farms Sorted By Net Farm Income)*

### Operator Information

<table>
<thead>
<tr>
<th></th>
<th>Avg. Of All Farms</th>
<th>Low 20%</th>
<th>40 - 60%</th>
<th>High 20%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of farms</td>
<td>235</td>
<td>47</td>
<td>47</td>
<td>47</td>
</tr>
<tr>
<td>Average number of operators</td>
<td>1.1</td>
<td>1.2</td>
<td>1.0</td>
<td>1.4</td>
</tr>
<tr>
<td>Average age of operators</td>
<td>47.8</td>
<td>48.6</td>
<td>47.2</td>
<td>49.3</td>
</tr>
<tr>
<td>Average number of years farming</td>
<td>24.2</td>
<td>25.0</td>
<td>23.0</td>
<td>27.3</td>
</tr>
</tbody>
</table>

### Results Per Operator

<table>
<thead>
<tr>
<th></th>
<th>All Farms</th>
<th>Low 20%</th>
<th>40 - 60%</th>
<th>High 20%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Working capital</td>
<td>286,553</td>
<td>58,631</td>
<td>203,879</td>
<td>663,196</td>
</tr>
<tr>
<td>Total assets (market)</td>
<td>3,813,202</td>
<td>3,275,705</td>
<td>3,129,302</td>
<td>5,350,560</td>
</tr>
<tr>
<td>Total liabilities</td>
<td>1,404,359</td>
<td>1,457,592</td>
<td>1,077,190</td>
<td>1,816,622</td>
</tr>
<tr>
<td>Net worth (market)</td>
<td>2,408,843</td>
<td>1,818,113</td>
<td>2,052,111</td>
<td>3,533,937</td>
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<tr>
<td>Net worth excl deferred liabs</td>
<td>2,690,181</td>
<td>2,032,740</td>
<td>2,217,172</td>
<td>4,059,593</td>
</tr>
<tr>
<td>Gross farm income</td>
<td>941,693</td>
<td>883,260</td>
<td>668,461</td>
<td>1,381,343</td>
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<tr>
<td>Total farm expense</td>
<td>851,300</td>
<td>981,162</td>
<td>613,019</td>
<td>1,076,233</td>
</tr>
<tr>
<td>Net farm income from operations</td>
<td>90,392</td>
<td>-97,902</td>
<td>55,442</td>
<td>305,110</td>
</tr>
<tr>
<td>Net nonfarm income</td>
<td>22,377</td>
<td>30,727</td>
<td>33,095</td>
<td>8,812</td>
</tr>
<tr>
<td>Family living &amp; tax withdrawals</td>
<td>88,114</td>
<td>66,418</td>
<td>79,390</td>
<td>123,176</td>
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<tr>
<td>Total acres owned</td>
<td>407.5</td>
<td>314.9</td>
<td>440.5</td>
<td>512.5</td>
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<tr>
<td>Total crop acres</td>
<td>1,689.5</td>
<td>1,773.6</td>
<td>1,306.2</td>
<td>2,229.0</td>
</tr>
<tr>
<td>Crop acres owned</td>
<td>364.7</td>
<td>265.7</td>
<td>418.3</td>
<td>467.1</td>
</tr>
<tr>
<td>Crop acres cash rented</td>
<td>1,297.6</td>
<td>1,477.9</td>
<td>837.3</td>
<td>1,742.2</td>
</tr>
<tr>
<td>Crop acres share rented</td>
<td>27.2</td>
<td>30.0</td>
<td>50.6</td>
<td>19.7</td>
</tr>
<tr>
<td>Total pasture acres</td>
<td>1.5</td>
<td>1.1</td>
<td>0.6</td>
<td>2.7</td>
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</tbody>
</table>

### Labor Analysis

<table>
<thead>
<tr>
<th></th>
<th>All Farms</th>
<th>Low 20%</th>
<th>40 - 60%</th>
<th>High 20%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of farms</td>
<td>235</td>
<td>47</td>
<td>47</td>
<td>47</td>
</tr>
<tr>
<td>Total unpaid labor hours</td>
<td>1,832</td>
<td>1,823</td>
<td>1,746</td>
<td>2,251</td>
</tr>
<tr>
<td>Total hired labor hours</td>
<td>2,436</td>
<td>3,866</td>
<td>1,143</td>
<td>4,468</td>
</tr>
<tr>
<td>Total labor hours per farm</td>
<td>4,268</td>
<td>5,689</td>
<td>2,889</td>
<td>6,719</td>
</tr>
<tr>
<td>Unpaid hours per operator</td>
<td>1,622</td>
<td>1,530</td>
<td>1,720</td>
<td>1,603</td>
</tr>
</tbody>
</table>
Nonfarm Summary
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2017
(Farms Sorted By Net Farm Income)

<table>
<thead>
<tr>
<th>Avg. Of</th>
<th>Low 20%</th>
<th>40 - 60%</th>
<th>High 20%</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Farms</td>
<td>235</td>
<td>47</td>
<td>47</td>
</tr>
</tbody>
</table>

**Nonfarm Income**

<table>
<thead>
<tr>
<th></th>
<th>Avg.</th>
<th>Low 20%</th>
<th>40 - 60%</th>
<th>High 20%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal wages &amp; salary</td>
<td>19,178</td>
<td>28,907</td>
<td>30,769</td>
<td>8,037</td>
</tr>
<tr>
<td>Net nonfarm business income</td>
<td>1,347</td>
<td>3,036</td>
<td>394</td>
<td>-126</td>
</tr>
<tr>
<td>Personal rental income</td>
<td>243</td>
<td>-</td>
<td>256</td>
<td>296</td>
</tr>
<tr>
<td>Personal interest income</td>
<td>153</td>
<td>26</td>
<td>284</td>
<td>339</td>
</tr>
<tr>
<td>Personal cash dividends</td>
<td>32</td>
<td>-</td>
<td>4</td>
<td>119</td>
</tr>
<tr>
<td>Tax refunds</td>
<td>597</td>
<td>957</td>
<td>399</td>
<td>237</td>
</tr>
<tr>
<td>Other nonfarm income</td>
<td>3,710</td>
<td>3,683</td>
<td>1,482</td>
<td>3,472</td>
</tr>
<tr>
<td>Total nonfarm income</td>
<td>25,262</td>
<td>36,611</td>
<td>33,587</td>
<td>12,374</td>
</tr>
<tr>
<td>Gifts and inheritances</td>
<td>7,456</td>
<td>15,842</td>
<td>2,848</td>
<td>4,826</td>
</tr>
</tbody>
</table>
# Financial Summary

**Minnesota and North Dakota Farm Business Management Education**  
**Red River Valley, 2017**  
*(Farms Sorted By Gross Farm Income)*

## Income Statement

|                      | Avg. Of All Farms | Less than 100,000 | 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      | 235               | 6                 | 23                | 41                | 79                | 59                | 27             |
| Gross cash farm income | 1,046,483         | 59,829            | 175,180           | 356,471           | 712,067           | 1,441,311         | 3,171,464      |
| Total cash farm expense | 877,925           | 60,477            | 147,780           | 290,753           | 575,458           | 1,195,582         | 2,764,043      |
| Net cash farm income | 168,558           | -648              | 27,400            | 65,717            | 136,608           | 245,729           | 407,420        |
| Inventory change     | 9,383             | 32,197            | 23,330            | 561               | -31,075           | 44,563            | 47,328         |
| Depreciation         | -75,897           | -3,771            | -12,278           | -33,159           | -57,555           | -112,576          | -184,535       |
| Net farm income from operations | 102,043         | 27,778            | 38,452            | 33,120            | 47,978            | 177,716           | 270,213        |
| Gain or loss on capital sales | 739              | -                 | -258              | 88                | 3,006             | -                 | -              |
| Average net farm income | 102,783          | 27,778            | 38,452            | 32,862            | 48,066            | 180,722           | 270,213        |
| Median net farm income | 53,694           | 17,205            | 30,346            | 29,177            | 44,213            | 148,129           | 177,509        |

## Profitability (cost)

<table>
<thead>
<tr>
<th></th>
<th>Rate of return on assets</th>
<th>Rate of return on equity</th>
<th>Operating profit margin</th>
<th>Asset turnover rate</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2.5%</td>
<td>6.6%</td>
<td>1.1%</td>
<td>36.3%</td>
</tr>
<tr>
<td></td>
<td>7.5%</td>
<td>7.5%</td>
<td>1.1%</td>
<td>36.7%</td>
</tr>
<tr>
<td></td>
<td>12.5%</td>
<td>36.0%</td>
<td>3.5%</td>
<td>30.4%</td>
</tr>
<tr>
<td></td>
<td>100,000</td>
<td>1,000,000</td>
<td>1,000,000</td>
<td>32.3%</td>
</tr>
<tr>
<td></td>
<td>2,000,000</td>
<td>3,171,464</td>
<td>2,764,043</td>
<td>37.6%</td>
</tr>
<tr>
<td></td>
<td>3,171,464</td>
<td>3,171,464</td>
<td>3,171,464</td>
<td>39.5%</td>
</tr>
</tbody>
</table>

## Liquidity & Repayment (end of year)

<table>
<thead>
<tr>
<th></th>
<th>Current assets</th>
<th>Current liabilities</th>
<th>Current ratio</th>
<th>Working capital</th>
<th>Change in working capital</th>
<th>Working capital to gross inc</th>
<th>Term debt coverage ratio</th>
<th>Replacement coverage ratio</th>
<th>Term debt to EBITDA</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>846,472</td>
<td>113,606</td>
<td>1.62</td>
<td>323,487</td>
<td>-39,478</td>
<td>30.4%</td>
<td>1.24</td>
<td>0.85</td>
<td>2.97</td>
</tr>
<tr>
<td></td>
<td>265,171</td>
<td>150,171</td>
<td>1.67</td>
<td>1,987,326</td>
<td>288,532</td>
<td>34.0%</td>
<td>1.47</td>
<td>1.47</td>
<td>3.47</td>
</tr>
<tr>
<td></td>
<td>1,987,326</td>
<td>1,179,528</td>
<td>1.67</td>
<td>265,171</td>
<td>21,665</td>
<td>30.4%</td>
<td>1.47</td>
<td>1.47</td>
<td>3.47</td>
</tr>
<tr>
<td></td>
<td>846,472</td>
<td>113,606</td>
<td>1.62</td>
<td>323,487</td>
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<td>1.24</td>
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<tr>
<td></td>
<td>265,171</td>
<td>150,171</td>
<td>1.67</td>
<td>1,987,326</td>
<td>288,532</td>
<td>34.0%</td>
<td>1.47</td>
<td>1.47</td>
<td>3.47</td>
</tr>
<tr>
<td></td>
<td>1,987,326</td>
<td>1,179,528</td>
<td>1.67</td>
<td>265,171</td>
<td>21,665</td>
<td>30.4%</td>
<td>1.47</td>
<td>1.47</td>
<td>3.47</td>
</tr>
</tbody>
</table>

## Solvency (end of year at cost)

<table>
<thead>
<tr>
<th></th>
<th>Number of farms</th>
<th>Total assets</th>
<th>Total liabilities</th>
<th>Net worth</th>
<th>Net worth change</th>
<th>Farm debt to asset ratio</th>
<th>Total debt to asset ratio</th>
<th>Change in earned net worth %</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>3,255,097</td>
<td>1,267,771</td>
<td>1,987,326</td>
<td>41,358</td>
<td>41%</td>
<td>39%</td>
<td>2%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3,255,097</td>
<td>1,267,771</td>
<td>1,987,326</td>
<td>41,358</td>
<td>41%</td>
<td>39%</td>
<td>2%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3,255,097</td>
<td>1,267,771</td>
<td>1,987,326</td>
<td>41,358</td>
<td>41%</td>
<td>39%</td>
<td>2%</td>
</tr>
</tbody>
</table>

## Solvency (end of year at market)

<table>
<thead>
<tr>
<th></th>
<th>Number of farms</th>
<th>Total assets</th>
<th>Total liabilities</th>
<th>Net worth</th>
<th>Total net worth change</th>
<th>Farm debt to asset ratio</th>
<th>Total debt to asset ratio</th>
<th>Change in total net worth %</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>4,304,699</td>
<td>1,585,372</td>
<td>2,719,328</td>
<td>85,662</td>
<td>38%</td>
<td>32%</td>
<td>3%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4,304,699</td>
<td>1,585,372</td>
<td>2,719,328</td>
<td>85,662</td>
<td>38%</td>
<td>32%</td>
<td>3%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4,304,699</td>
<td>1,585,372</td>
<td>2,719,328</td>
<td>85,662</td>
<td>38%</td>
<td>32%</td>
<td>3%</td>
</tr>
</tbody>
</table>

## Nonfarm Information

|                      | Netnonfarmincome | 25,262      | 30,020          | 25,076      | 38,981              | 28,221              | 18,831              | 8,922             |

## Crop Acres

<table>
<thead>
<tr>
<th></th>
<th>Total crop acres</th>
<th>1,907</th>
<th>194</th>
<th>434</th>
<th>377</th>
<th>1,407</th>
<th>2,804</th>
<th>4,767</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total crop acres owned</td>
<td>412</td>
<td>30</td>
<td>97</td>
<td>212</td>
<td>335</td>
<td>528</td>
<td>1,038</td>
</tr>
<tr>
<td></td>
<td>Total crop acres cash rented</td>
<td>1,465</td>
<td>164</td>
<td>334</td>
<td>520</td>
<td>1,032</td>
<td>2,257</td>
<td>3,689</td>
</tr>
<tr>
<td></td>
<td>Total crop acres share rented</td>
<td>31</td>
<td>-</td>
<td>3</td>
<td>44</td>
<td>40</td>
<td>19</td>
<td>40</td>
</tr>
<tr>
<td></td>
<td>Machinery value per crop acre</td>
<td>374</td>
<td>230</td>
<td>271</td>
<td>403</td>
<td>409</td>
<td>372</td>
<td>348</td>
</tr>
</tbody>
</table>
## Financial Summary

**Minnesota and North Dakota Farm Business Management Education**

**Red River Valley, 2017**

*(Farms Sorted By Age of Operator)*

<table>
<thead>
<tr>
<th></th>
<th>Avg. Of All Farms</th>
<th>Less Than 31</th>
<th>31 - 40</th>
<th>41 - 50</th>
<th>51 - 60</th>
<th>Over 60</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Number of farms</strong></td>
<td>235</td>
<td>28</td>
<td>51</td>
<td>39</td>
<td>69</td>
<td>48</td>
</tr>
</tbody>
</table>

### Income Statement

<p>| | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gross cash farm income</strong></td>
<td>1,046,483</td>
<td>452,931</td>
<td>838,102</td>
<td>1,159,195</td>
<td>1,388,243</td>
<td>1,031,268</td>
</tr>
<tr>
<td><strong>Total cash farm expense</strong></td>
<td>877,925</td>
<td>388,752</td>
<td>734,887</td>
<td>937,788</td>
<td>1,194,223</td>
<td>811,998</td>
</tr>
<tr>
<td><strong>Net cash farm income</strong></td>
<td>168,558</td>
<td>64,180</td>
<td>103,215</td>
<td>221,407</td>
<td>194,021</td>
<td>219,331</td>
</tr>
<tr>
<td><strong>Inventory change</strong></td>
<td>9,389</td>
<td>36,331</td>
<td>26,605</td>
<td>20,080</td>
<td>-12,593</td>
<td>-1,738</td>
</tr>
<tr>
<td><strong>Depreciation</strong></td>
<td>-75,897</td>
<td>-21,588</td>
<td>-55,185</td>
<td>-71,877</td>
<td>-103,888</td>
<td>-92,614</td>
</tr>
<tr>
<td><strong>Net farm income from operations</strong></td>
<td>102,043</td>
<td>78,923</td>
<td>74,634</td>
<td>169,609</td>
<td>77,540</td>
<td>124,979</td>
</tr>
<tr>
<td><strong>Gain or loss on capital sales</strong></td>
<td>739</td>
<td>27</td>
<td>262</td>
<td>-151</td>
<td>1,980</td>
<td>602</td>
</tr>
<tr>
<td><strong>Average net farm income</strong></td>
<td>102,783</td>
<td>78,950</td>
<td>74,896</td>
<td>169,458</td>
<td>79,520</td>
<td>125,581</td>
</tr>
<tr>
<td><strong>Median net farm income</strong></td>
<td>53,694</td>
<td>34,285</td>
<td>52,987</td>
<td>73,117</td>
<td>54,463</td>
<td>78,290</td>
</tr>
</tbody>
</table>

### Profitability (cost)

<p>| | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Rate of return on assets</strong></td>
<td>2.5%</td>
<td>5.6%</td>
<td>2.8%</td>
<td>4.7%</td>
<td>1.2%</td>
<td>2.6%</td>
</tr>
<tr>
<td><strong>Rate of return on equity</strong></td>
<td>1.7%</td>
<td>7.1%</td>
<td>1.3%</td>
<td>5.3%</td>
<td>-0.4%</td>
<td>1.9%</td>
</tr>
<tr>
<td><strong>Operating profit margin</strong></td>
<td>7.0%</td>
<td>10.7%</td>
<td>6.9%</td>
<td>11.7%</td>
<td>3.3%</td>
<td>8.7%</td>
</tr>
<tr>
<td><strong>Asset turnover rate</strong></td>
<td>36.3%</td>
<td>52.3%</td>
<td>40.0%</td>
<td>40.2%</td>
<td>36.1%</td>
<td>29.3%</td>
</tr>
</tbody>
</table>

### Liquidity & Repayment (end of year)

<p>| | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Current assets</strong></td>
<td>846,472</td>
<td>313,790</td>
<td>631,034</td>
<td>966,300</td>
<td>1,064,170</td>
<td>975,805</td>
</tr>
<tr>
<td><strong>Current liabilities</strong></td>
<td>522,985</td>
<td>187,855</td>
<td>534,995</td>
<td>518,769</td>
<td>680,088</td>
<td>483,304</td>
</tr>
<tr>
<td><strong>Working capital</strong></td>
<td>323,487</td>
<td>125,935</td>
<td>96,038</td>
<td>447,531</td>
<td>384,082</td>
<td>492,501</td>
</tr>
<tr>
<td><strong>Change in working capital</strong></td>
<td>-39,478</td>
<td>14,166</td>
<td>-67,260</td>
<td>-20,467</td>
<td>-76,141</td>
<td>-3,994</td>
</tr>
<tr>
<td><strong>Term debt coverage ratio</strong></td>
<td>1.24</td>
<td>2.21</td>
<td>1.00</td>
<td>1.98</td>
<td>0.90</td>
<td>1.38</td>
</tr>
<tr>
<td><strong>Replacement coverage ratio</strong></td>
<td>0.85</td>
<td>1.91</td>
<td>0.75</td>
<td>1.43</td>
<td>0.61</td>
<td>0.86</td>
</tr>
<tr>
<td><strong>Term debt to EBITDA</strong></td>
<td>2.97</td>
<td>1.43</td>
<td>3.99</td>
<td>2.19</td>
<td>3.57</td>
<td>2.51</td>
</tr>
</tbody>
</table>

### Solvency (end of year at cost)

<p>| | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Number of farms</strong></td>
<td>235</td>
<td>28</td>
<td>51</td>
<td>39</td>
<td>69</td>
<td>48</td>
</tr>
<tr>
<td><strong>Total assets</strong></td>
<td>3,255,097</td>
<td>1,079,358</td>
<td>2,563,137</td>
<td>3,220,008</td>
<td>4,158,288</td>
<td>3,989,658</td>
</tr>
<tr>
<td><strong>Total liabilities</strong></td>
<td>1,267,771</td>
<td>463,095</td>
<td>1,389,295</td>
<td>1,256,953</td>
<td>1,566,785</td>
<td>1,187,005</td>
</tr>
<tr>
<td><strong>Net worth</strong></td>
<td>1,987,326</td>
<td>616,263</td>
<td>1,173,842</td>
<td>1,963,054</td>
<td>2,591,504</td>
<td>2,802,653</td>
</tr>
<tr>
<td><strong>Net worth change</strong></td>
<td>41,358</td>
<td>69,965</td>
<td>18,536</td>
<td>95,728</td>
<td>13,334</td>
<td>45,026</td>
</tr>
<tr>
<td><strong>Farm debt to asset ratio</strong></td>
<td>41%</td>
<td>41%</td>
<td>56%</td>
<td>39%</td>
<td>40%</td>
<td>32%</td>
</tr>
<tr>
<td><strong>Total debt to asset ratio</strong></td>
<td>39%</td>
<td>43%</td>
<td>54%</td>
<td>39%</td>
<td>38%</td>
<td>30%</td>
</tr>
<tr>
<td><strong>Change in earned net worth %</strong></td>
<td>2%</td>
<td>13%</td>
<td>2%</td>
<td>5%</td>
<td>1%</td>
<td>2%</td>
</tr>
</tbody>
</table>

### Solvency (end of year at market)

<p>| | | | | | | |</p>
<table>
<thead>
<tr>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Number of farms</strong></td>
<td>235</td>
<td>28</td>
<td>51</td>
<td>39</td>
<td>69</td>
<td>48</td>
</tr>
<tr>
<td><strong>Total assets</strong></td>
<td>4,304,699</td>
<td>1,126,359</td>
<td>2,953,712</td>
<td>4,129,912</td>
<td>5,600,206</td>
<td>5,873,878</td>
</tr>
<tr>
<td><strong>Total liabilities</strong></td>
<td>1,585,372</td>
<td>517,045</td>
<td>1,580,246</td>
<td>1,628,857</td>
<td>1,978,943</td>
<td>1,612,918</td>
</tr>
<tr>
<td><strong>Net worth</strong></td>
<td>2,719,326</td>
<td>609,314</td>
<td>1,373,466</td>
<td>2,501,055</td>
<td>3,621,263</td>
<td>4,260,961</td>
</tr>
<tr>
<td><strong>Net worth change</strong></td>
<td>85,662</td>
<td>84,378</td>
<td>21,003</td>
<td>159,090</td>
<td>80,974</td>
<td>102,191</td>
</tr>
<tr>
<td><strong>Farm debt to asset ratio</strong></td>
<td>38%</td>
<td>45%</td>
<td>56%</td>
<td>40%</td>
<td>37%</td>
<td>29%</td>
</tr>
<tr>
<td><strong>Total debt to asset ratio</strong></td>
<td>37%</td>
<td>46%</td>
<td>54%</td>
<td>39%</td>
<td>35%</td>
<td>27%</td>
</tr>
<tr>
<td><strong>Change in total net worth %</strong></td>
<td>3%</td>
<td>16%</td>
<td>2%</td>
<td>7%</td>
<td>2%</td>
<td>2%</td>
</tr>
</tbody>
</table>

### Nonfarm Information

<p>| | | | | | | |</p>
<table>
<thead>
<tr>
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<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td><strong>Net nonfarm income</strong></td>
<td>25,262</td>
<td>23,940</td>
<td>23,327</td>
<td>20,567</td>
<td>32,463</td>
<td>21,551</td>
</tr>
</tbody>
</table>

### Crop Acres

<p>| | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total crop acres</strong></td>
<td>1,907</td>
<td>1,303</td>
<td>1,535</td>
<td>1,984</td>
<td>2,415</td>
<td>1,863</td>
</tr>
<tr>
<td><strong>Total crop acres owned</strong></td>
<td>412</td>
<td>87</td>
<td>306</td>
<td>308</td>
<td>543</td>
<td>610</td>
</tr>
<tr>
<td><strong>Total crop acres cash rented</strong></td>
<td>1,465</td>
<td>1,191</td>
<td>1,213</td>
<td>1,634</td>
<td>1,838</td>
<td>1,218</td>
</tr>
<tr>
<td><strong>Total crop acres share rented</strong></td>
<td>31</td>
<td>25</td>
<td>16</td>
<td>42</td>
<td>34</td>
<td>35</td>
</tr>
<tr>
<td><strong>Machinery value per crop acre</strong></td>
<td>374</td>
<td>168</td>
<td>337</td>
<td>330</td>
<td>402</td>
<td>475</td>
</tr>
</tbody>
</table>
EXPLANATORY NOTES FOR CROPS TABLES

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

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

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

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

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

Rounding of individual items for the report may have caused minor discrepancies with the calculated totals.
Five Year Crop History of
Yields and Cost of Production
Red River Valley Farm Business Management Education

**Sugar Beet Yields**
- 2013: 24.9 Tons
- 2014: 22.9 Tons
- 2015: 26.6 Tons
- 2016: 32.3 Tons
- 2017: 30.7 Tons

**Sugar Beet Total Listed Cost**
- 2013: $1,210
- 2014: $1,051
- 2015: $1,093
- 2016: $1,087
- 2017: $1,085

**Corn Yields**
- 2013: 131.7 Bu.
- 2014: 131.2 Bu.
- 2015: 167.5 Bu.
- 2016: 190.2 Bu.
- 2017: 177.8 Bu.

**Corn Total Listed Cost**
- 2013: $652
- 2014: $647
- 2015: $611
- 2016: $583
- 2017: $584

**Spring Wheat Yields**
- 2013: 67.9 Bu.
- 2014: 66.1 Bu.
- 2015: 71.4 Bu.
- 2016: 69.2 Bu.
- 2017: 74.4 Bu.

**Spring Wheat Total Listed Cost**
- 2013: $418
- 2014: $423
- 2015: $404
- 2016: $372
- 2017: $379

**Soybeans Yields**
- 2013: 34.3 Bu.
- 2014: 37.7 Bu.
- 2015: 41.9 Bu.
- 2016: 47.0 Bu.

**Soybeans Total Listed Cost**
- 2013: $364
- 2014: $385
- 2015: $370
- 2016: $356
- 2017: $371
## Crop Enterprise Analysis

**Minnesota and North Dakota Farm Business Management Education**  
**Red River Valley, 2017**  
*(Farms Sorted By Return to Overhead)*

### Barley on Cash Rent

<table>
<thead>
<tr>
<th>Avg. Of All Farms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of farms</td>
</tr>
<tr>
<td>Acres</td>
</tr>
<tr>
<td>Yield per acre (bu.)</td>
</tr>
<tr>
<td>Operators share of yield %</td>
</tr>
<tr>
<td>Value per bu.</td>
</tr>
<tr>
<td>Total product return per acre</td>
</tr>
<tr>
<td>Crop insurance per acre</td>
</tr>
<tr>
<td>Other crop income per acre</td>
</tr>
<tr>
<td>Gross return per acre</td>
</tr>
</tbody>
</table>

### Direct Expenses

- **Seed and plants**: 16.22
- **Fertilizer**: 55.69
- **Crop chemicals**: 34.65
- **Crop insurance**: 20.35
- **Fuel & oil**: 14.86
- **Repairs**: 22.03
- **Custom hire**: 6.48
- **Land rent**: 134.20
- **Operating interest**: 5.73
- **Miscellaneous**: 6.40

Total direct expenses per acre: 316.61

Return over direct exp per acre: 73.61

### Overhead Expenses

- **Hired labor**: 22.56
- **Machinery leases**: 3.77
- **Farm insurance**: 7.47
- **Utilities**: 4.65
- **Dues & professional fees**: 2.37
- **Interest**: 3.17
- **Mach & bldg depreciation**: 28.72
- **Miscellaneous**: 4.63

Total overhead expenses per acre: 77.34

Total dir & ovhd expenses per acre: 393.95

Net return per acre: -3.73

- **Government payments**: 10.50
- **Net return with govt pmts**: 6.77
- **Labor & management charge**: 25.82
- **Net return over lbr & mgt**: -19.15

### Cost of Production

- **Total direct expense per bu.**: 3.58
- **Total dir & ovhd exp per bu.**: 4.46
- **Less govt & other income**: 4.18
- **With labor & management**: 4.48

Net value per unit: 4.26

Machinery cost per acre: 77.21

Est. labor hours per acre: 1.44
Crop Enterprise Analysis  
*Minnesota and North Dakota Farm Business Management Education*  
*Red River Valley, 2017*  
*(Farms Sorted By Return to Overhead)*

**Beans, Navy on Cash Rent**

<table>
<thead>
<tr>
<th>Avg. Of All Farms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of farms</td>
</tr>
<tr>
<td>Acres</td>
</tr>
<tr>
<td>Yield per acre (cwt.)</td>
</tr>
<tr>
<td>Operators share of yield %</td>
</tr>
<tr>
<td>Value per cwt.</td>
</tr>
<tr>
<td>Total product return per acre</td>
</tr>
<tr>
<td>Crop insurance per acre</td>
</tr>
<tr>
<td>Other crop income per acre</td>
</tr>
<tr>
<td>Gross return per acre</td>
</tr>
</tbody>
</table>

### Direct Expenses

- **Seed and plants**: 56.74
- **Fertilizer**: 48.56
- **Crop chemicals**: 61.07
- **Crop insurance**: 28.41
- **Fuel & oil**: 23.08
- **Repairs**: 38.98
- **Custom hire**: 9.60
- **Hired labor**: 3.53
- **Land rent**: 130.65
- **Operating interest**: 17.06
- **Miscellaneous**: 1.27

**Total direct expenses per acre**: 418.95

**Return over direct exp per acre**: 129.15

### Overhead Expenses

- **Custom hire**: 0.96
- **Hired labor**: 11.87
- **Machinery leases**: 2.37
- **Building leases**: 3.40
- **Farm insurance**: 8.01
- **Utilities**: 4.69
- **Dues & professional fees**: 3.12
- **Interest**: 4.54
- **Mach & bldg depreciation**: 29.82
- **Miscellaneous**: 2.90

**Total overhead expenses per acre**: 71.68

**Total dir & ovhd expenses per acre**: 490.63

**Net return per acre**: 57.47

- **Government payments**: -
- **Net return with govt pmts**: 57.47
- **Labor & management charge**: 33.52
- **Net return over lbr & mgt**: 23.95

### Cost of Production

- **Total direct expense per cwt.**: 20.65
- **Total dir & ovhd exp per cwt.**: 24.19
- **Less govt & other income**: 22.18
- **With labor & management**: 23.84

**Net value per unit**: 25.02

**Machinery cost per acre**: 109.40

**Est. labor hours per acre**: 1.87
### Beans, Pinto on Cash Rent

<table>
<thead>
<tr>
<th><strong>Avg. Of</strong></th>
<th><strong>All Farms</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of farms</td>
<td>6</td>
</tr>
<tr>
<td>Acres</td>
<td>268.86</td>
</tr>
<tr>
<td>Yield per acre (cwt.)</td>
<td>17.69</td>
</tr>
<tr>
<td>Operators share of yield %</td>
<td>100.00</td>
</tr>
<tr>
<td>Value per cwt.</td>
<td>23.89</td>
</tr>
<tr>
<td>Total product return per acre</td>
<td>422.61</td>
</tr>
<tr>
<td>Crop insurance per acre</td>
<td>1.94</td>
</tr>
<tr>
<td>Other crop income per acre</td>
<td>4.69</td>
</tr>
<tr>
<td>Gross return per acre</td>
<td>429.24</td>
</tr>
</tbody>
</table>

#### Direct Expenses

<table>
<thead>
<tr>
<th>Item</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seed and plants</td>
<td>53.07</td>
</tr>
<tr>
<td>Fertilizer</td>
<td>17.62</td>
</tr>
<tr>
<td>Crop chemicals</td>
<td>56.73</td>
</tr>
<tr>
<td>Crop insurance</td>
<td>22.14</td>
</tr>
<tr>
<td>Fuel &amp; oil</td>
<td>18.38</td>
</tr>
<tr>
<td>Repairs</td>
<td>28.37</td>
</tr>
<tr>
<td>Custom hire</td>
<td>7.17</td>
</tr>
<tr>
<td>Land rent</td>
<td>109.39</td>
</tr>
<tr>
<td>Operating interest</td>
<td>4.54</td>
</tr>
<tr>
<td>Total direct expenses per acre</td>
<td>317.43</td>
</tr>
<tr>
<td>Return over direct exp per acre</td>
<td>111.81</td>
</tr>
</tbody>
</table>

#### Overhead Expenses

<table>
<thead>
<tr>
<th>Item</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hired labor</td>
<td>19.53</td>
</tr>
<tr>
<td>Machinery leases</td>
<td>3.62</td>
</tr>
<tr>
<td>Building leases</td>
<td>4.87</td>
</tr>
<tr>
<td>Farm insurance</td>
<td>5.05</td>
</tr>
<tr>
<td>Utilities</td>
<td>3.58</td>
</tr>
<tr>
<td>Dues &amp; professional fees</td>
<td>5.27</td>
</tr>
<tr>
<td>Interest</td>
<td>1.81</td>
</tr>
<tr>
<td>Mach &amp; bldg depreciation</td>
<td>51.48</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>1.87</td>
</tr>
<tr>
<td>Total overhead expenses per acre</td>
<td>97.10</td>
</tr>
<tr>
<td>Total dir &amp; ovhd expenses per acre</td>
<td>414.53</td>
</tr>
<tr>
<td>Net return per acre</td>
<td>14.71</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Item</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Government payments</td>
<td>-</td>
</tr>
<tr>
<td>Net return with govt pmts</td>
<td>14.71</td>
</tr>
<tr>
<td>Labor &amp; management charge</td>
<td>40.08</td>
</tr>
<tr>
<td>Net return over lbr &amp; mgt</td>
<td>-25.37</td>
</tr>
</tbody>
</table>

#### Cost of Production

<table>
<thead>
<tr>
<th>Item</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total direct expense per cwt.</td>
<td>17.95</td>
</tr>
<tr>
<td>Total dir &amp; ovhd exp per cwt.</td>
<td>23.44</td>
</tr>
<tr>
<td>Less govt &amp; other income</td>
<td>23.06</td>
</tr>
<tr>
<td>With labor &amp; management</td>
<td>25.33</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Item</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net value per unit</td>
<td>23.89</td>
</tr>
<tr>
<td>Machinery cost per acre</td>
<td>105.23</td>
</tr>
<tr>
<td>Est. labor hours per acre</td>
<td>1.92</td>
</tr>
</tbody>
</table>
Crop Enterprise Analysis
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2017
(Farms Sorted By Return to Overhead)

Corn on Owned Land

<table>
<thead>
<tr>
<th>Avg. Of</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Farms</td>
</tr>
<tr>
<td>Number of farms</td>
</tr>
<tr>
<td>Acres</td>
</tr>
<tr>
<td>Yield per acre (bu.)</td>
</tr>
<tr>
<td>Operators share of yield %</td>
</tr>
<tr>
<td>Value per bu.</td>
</tr>
<tr>
<td>Total product return per acre</td>
</tr>
<tr>
<td>Hedging gains/losses per acre</td>
</tr>
<tr>
<td>Crop insurance per acre</td>
</tr>
<tr>
<td>Other crop income per acre</td>
</tr>
<tr>
<td>Gross return per acre</td>
</tr>
</tbody>
</table>

**Direct Expenses**

<table>
<thead>
<tr>
<th>Item</th>
<th>All Farms</th>
<th>Low 20%</th>
<th>40 - 60%</th>
<th>High 20%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seed and plants</td>
<td>95.93</td>
<td>98.16</td>
<td>99.90</td>
<td>93.92</td>
</tr>
<tr>
<td>Fertilizer</td>
<td>102.31</td>
<td>99.47</td>
<td>103.49</td>
<td>104.47</td>
</tr>
<tr>
<td>Crop chemicals</td>
<td>26.07</td>
<td>24.04</td>
<td>27.41</td>
<td>18.25</td>
</tr>
<tr>
<td>Crop insurance</td>
<td>23.09</td>
<td>25.16</td>
<td>22.13</td>
<td>24.19</td>
</tr>
<tr>
<td>Drying expense</td>
<td>13.76</td>
<td>11.69</td>
<td>12.58</td>
<td>21.50</td>
</tr>
<tr>
<td>Fuel &amp; oil</td>
<td>20.95</td>
<td>23.17</td>
<td>21.81</td>
<td>22.29</td>
</tr>
<tr>
<td>Custom hire</td>
<td>6.16</td>
<td>4.99</td>
<td>12.36</td>
<td>1.92</td>
</tr>
<tr>
<td>Hired labor</td>
<td>3.64</td>
<td>3.99</td>
<td>10.59</td>
<td>0.34</td>
</tr>
<tr>
<td>Machinery leases</td>
<td>0.98</td>
<td>2.45</td>
<td>-</td>
<td>0.27</td>
</tr>
<tr>
<td>Operating interest</td>
<td>11.10</td>
<td>8.58</td>
<td>10.53</td>
<td>9.26</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>3.10</td>
<td>2.76</td>
<td>1.04</td>
<td>0.27</td>
</tr>
<tr>
<td>Total direct expenses per acre</td>
<td>344.63</td>
<td>354.50</td>
<td>355.52</td>
<td>334.94</td>
</tr>
<tr>
<td>Return over direct exp per acre</td>
<td>219.49</td>
<td>112.90</td>
<td>209.22</td>
<td>316.21</td>
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</table>

**Overhead Expenses**

<table>
<thead>
<tr>
<th>Item</th>
<th>All Farms</th>
<th>Low 20%</th>
<th>40 - 60%</th>
<th>High 20%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Custom hire</td>
<td>0.75</td>
<td>0.26</td>
<td>0.11</td>
<td>1.70</td>
</tr>
<tr>
<td>Hired labor</td>
<td>24.72</td>
<td>8.44</td>
<td>17.49</td>
<td>40.26</td>
</tr>
<tr>
<td>Machinery leases</td>
<td>7.81</td>
<td>5.99</td>
<td>8.38</td>
<td>5.21</td>
</tr>
<tr>
<td>Building leases</td>
<td>1.95</td>
<td>0.98</td>
<td>3.17</td>
<td>1.74</td>
</tr>
<tr>
<td>RE &amp; pers. property taxes</td>
<td>22.58</td>
<td>24.24</td>
<td>20.72</td>
<td>24.92</td>
</tr>
<tr>
<td>Farm insurance</td>
<td>8.05</td>
<td>9.35</td>
<td>8.91</td>
<td>8.90</td>
</tr>
<tr>
<td>Utilities</td>
<td>6.12</td>
<td>6.47</td>
<td>7.69</td>
<td>6.56</td>
</tr>
<tr>
<td>Dues &amp; professional fees</td>
<td>4.29</td>
<td>4.64</td>
<td>5.84</td>
<td>3.34</td>
</tr>
<tr>
<td>Interest</td>
<td>59.37</td>
<td>85.29</td>
<td>47.69</td>
<td>70.75</td>
</tr>
<tr>
<td>Mach &amp; bldg depreciation</td>
<td>47.54</td>
<td>48.06</td>
<td>46.27</td>
<td>49.73</td>
</tr>
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<td>Miscellaneous</td>
<td>6.14</td>
<td>4.97</td>
<td>6.58</td>
<td>8.62</td>
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<tr>
<td>Total overhead expenses per acre</td>
<td>189.32</td>
<td>198.70</td>
<td>172.85</td>
<td>221.82</td>
</tr>
<tr>
<td>Total dir &amp; ovhd expenses per acre</td>
<td>533.95</td>
<td>553.19</td>
<td>528.37</td>
<td>556.75</td>
</tr>
<tr>
<td>Net return per acre</td>
<td>30.17</td>
<td>-85.80</td>
<td>36.37</td>
<td>94.39</td>
</tr>
<tr>
<td>Government payments</td>
<td>7.94</td>
<td>7.93</td>
<td>6.71</td>
<td>3.90</td>
</tr>
<tr>
<td>Net return with govt pmts</td>
<td>38.11</td>
<td>-77.87</td>
<td>43.08</td>
<td>98.29</td>
</tr>
<tr>
<td>Labor &amp; management charge</td>
<td>37.34</td>
<td>49.51</td>
<td>32.73</td>
<td>40.51</td>
</tr>
<tr>
<td>Net return over lbr &amp; mgt</td>
<td>0.78</td>
<td>-127.38</td>
<td>10.35</td>
<td>57.78</td>
</tr>
</tbody>
</table>

**Cost of Production**

<table>
<thead>
<tr>
<th>Item</th>
<th>All Farms</th>
<th>Low 20%</th>
<th>40 - 60%</th>
<th>High 20%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total direct expense per bu.</td>
<td>1.90</td>
<td>2.21</td>
<td>1.99</td>
<td>1.65</td>
</tr>
<tr>
<td>Total dir &amp; ovhd exp per bu.</td>
<td>2.95</td>
<td>3.45</td>
<td>2.95</td>
<td>2.74</td>
</tr>
<tr>
<td>Less govt &amp; other income</td>
<td>2.86</td>
<td>3.35</td>
<td>2.88</td>
<td>2.66</td>
</tr>
<tr>
<td>With labor &amp; management</td>
<td>3.07</td>
<td>3.66</td>
<td>3.06</td>
<td>2.86</td>
</tr>
<tr>
<td>Net value per unit</td>
<td>3.08</td>
<td>2.86</td>
<td>3.12</td>
<td>3.16</td>
</tr>
<tr>
<td>Machinery cost per acre</td>
<td>120.62</td>
<td>134.62</td>
<td>120.93</td>
<td>120.85</td>
</tr>
<tr>
<td>Est. labor hours per acre</td>
<td>2.42</td>
<td>2.71</td>
<td>2.27</td>
<td>2.62</td>
</tr>
</tbody>
</table>
### Crop Enterprise Analysis

**Minnesota and North Dakota Farm Business Management Education**

**Red River Valley, 2017**

*(Farms Sorted By Return to Overhead)*

**Corn on Cash Rent**

<table>
<thead>
<tr>
<th></th>
<th><strong>Avg. Of All Farms</strong></th>
<th><strong>Low 20%</strong></th>
<th><strong>40 - 60%</strong></th>
<th><strong>High 20%</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Number of farms</strong></td>
<td>131</td>
<td>26</td>
<td>26</td>
<td>27</td>
</tr>
<tr>
<td><strong>Acres</strong></td>
<td>564.96</td>
<td>593.05</td>
<td>671.78</td>
<td>631.52</td>
</tr>
<tr>
<td><strong>Yield per acre (bu.)</strong></td>
<td>176.63</td>
<td>165.96</td>
<td>175.26</td>
<td>188.62</td>
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<tr>
<td><strong>Operators share of yield %</strong></td>
<td>100.00</td>
<td>100.00</td>
<td>100.00</td>
<td>100.00</td>
</tr>
<tr>
<td><strong>Value per bu.</strong></td>
<td>3.09</td>
<td>3.05</td>
<td>3.08</td>
<td>3.13</td>
</tr>
<tr>
<td><strong>Total product return per acre</strong></td>
<td>545.31</td>
<td>505.81</td>
<td>539.00</td>
<td>590.43</td>
</tr>
<tr>
<td><strong>Hedging gains/losses per acre</strong></td>
<td>2.44</td>
<td>8.14</td>
<td>3.10</td>
<td>8.62</td>
</tr>
<tr>
<td><strong>Crop insurance per acre</strong></td>
<td>5.11</td>
<td>8.68</td>
<td>2.98</td>
<td>8.62</td>
</tr>
<tr>
<td><strong>Other crop income per acre</strong></td>
<td>4.52</td>
<td>4.38</td>
<td>5.12</td>
<td>4.56</td>
</tr>
<tr>
<td><strong>Gross return per acre</strong></td>
<td>557.38</td>
<td>518.87</td>
<td>555.24</td>
<td>606.71</td>
</tr>
</tbody>
</table>

**Direct Expenses**

<table>
<thead>
<tr>
<th>Item</th>
<th><strong>Avg. Of All Farms</strong></th>
<th><strong>Low 20%</strong></th>
<th><strong>40 - 60%</strong></th>
<th><strong>High 20%</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Seed and plants</strong></td>
<td>92.39</td>
<td>95.83</td>
<td>96.24</td>
<td>86.15</td>
</tr>
<tr>
<td><strong>Fertilizer</strong></td>
<td>103.74</td>
<td>104.57</td>
<td>107.63</td>
<td>99.24</td>
</tr>
<tr>
<td><strong>Crop chemicals</strong></td>
<td>26.65</td>
<td>26.73</td>
<td>27.37</td>
<td>22.99</td>
</tr>
<tr>
<td><strong>Crop insurance</strong></td>
<td>21.10</td>
<td>18.02</td>
<td>23.76</td>
<td>20.84</td>
</tr>
<tr>
<td><strong>Drying expense</strong></td>
<td>12.73</td>
<td>15.22</td>
<td>12.46</td>
<td>8.53</td>
</tr>
<tr>
<td><strong>Fuel &amp; oil</strong></td>
<td>21.94</td>
<td>23.14</td>
<td>21.79</td>
<td>22.16</td>
</tr>
<tr>
<td><strong>Repairs</strong></td>
<td>36.84</td>
<td>35.68</td>
<td>32.69</td>
<td>37.61</td>
</tr>
<tr>
<td><strong>Custom hire</strong></td>
<td>5.33</td>
<td>11.59</td>
<td>6.16</td>
<td>0.70</td>
</tr>
<tr>
<td><strong>Hired labor</strong></td>
<td>4.70</td>
<td>7.19</td>
<td>6.01</td>
<td>0.17</td>
</tr>
<tr>
<td><strong>Land rent</strong></td>
<td>143.35</td>
<td>182.90</td>
<td>140.01</td>
<td>130.07</td>
</tr>
<tr>
<td><strong>Machinery leases</strong></td>
<td>1.39</td>
<td>2.75</td>
<td>0.94</td>
<td>-</td>
</tr>
<tr>
<td><strong>Operating interest</strong></td>
<td>11.75</td>
<td>16.47</td>
<td>10.62</td>
<td>9.60</td>
</tr>
<tr>
<td><strong>Miscellaneous</strong></td>
<td>2.55</td>
<td>3.00</td>
<td>3.13</td>
<td>0.37</td>
</tr>
<tr>
<td><strong>Total direct expenses per acre</strong></td>
<td>484.45</td>
<td>543.09</td>
<td>484.87</td>
<td>443.62</td>
</tr>
<tr>
<td><strong>Return over direct exp per acre</strong></td>
<td>72.94</td>
<td>-24.22</td>
<td>70.38</td>
<td>163.08</td>
</tr>
</tbody>
</table>

**Overhead Expenses**

<table>
<thead>
<tr>
<th>Item</th>
<th><strong>Avg. Of All Farms</strong></th>
<th><strong>Low 20%</strong></th>
<th><strong>40 - 60%</strong></th>
<th><strong>High 20%</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Custom hire</strong></td>
<td>0.62</td>
<td>-</td>
<td>0.81</td>
<td>0.53</td>
</tr>
<tr>
<td><strong>Hired labor</strong></td>
<td>17.68</td>
<td>9.39</td>
<td>25.02</td>
<td>22.23</td>
</tr>
<tr>
<td><strong>Machinery leases</strong></td>
<td>10.52</td>
<td>10.58</td>
<td>11.07</td>
<td>16.04</td>
</tr>
<tr>
<td><strong>Building leases</strong></td>
<td>3.14</td>
<td>8.91</td>
<td>2.89</td>
<td>1.19</td>
</tr>
<tr>
<td><strong>Farm insurance</strong></td>
<td>6.98</td>
<td>6.92</td>
<td>5.20</td>
<td>7.09</td>
</tr>
<tr>
<td><strong>Utilities</strong></td>
<td>5.27</td>
<td>4.54</td>
<td>5.03</td>
<td>6.67</td>
</tr>
<tr>
<td><strong>Dues &amp; professional fees</strong></td>
<td>4.15</td>
<td>2.73</td>
<td>3.96</td>
<td>5.20</td>
</tr>
<tr>
<td><strong>Interest</strong></td>
<td>3.44</td>
<td>3.03</td>
<td>3.41</td>
<td>4.47</td>
</tr>
<tr>
<td><strong>Mach &amp; bldg depreciation</strong></td>
<td>42.76</td>
<td>37.28</td>
<td>40.51</td>
<td>43.72</td>
</tr>
<tr>
<td><strong>Miscellaneous</strong></td>
<td>4.92</td>
<td>4.68</td>
<td>6.88</td>
<td>4.46</td>
</tr>
<tr>
<td><strong>Total overhead expenses per acre</strong></td>
<td>99.84</td>
<td>87.11</td>
<td>104.78</td>
<td>111.59</td>
</tr>
<tr>
<td><strong>Total dir &amp; ovhd expenses per acre</strong></td>
<td>584.29</td>
<td>630.20</td>
<td>589.65</td>
<td>555.22</td>
</tr>
<tr>
<td><strong>Net return per acre</strong></td>
<td>-26.90</td>
<td>-111.33</td>
<td>-34.41</td>
<td>51.49</td>
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</tbody>
</table>

**Cost of Production**

<table>
<thead>
<tr>
<th>Item</th>
<th><strong>Avg. Of All Farms</strong></th>
<th><strong>Low 20%</strong></th>
<th><strong>40 - 60%</strong></th>
<th><strong>High 20%</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total direct expense per bu.</strong></td>
<td>2.74</td>
<td>3.27</td>
<td>2.77</td>
<td>2.35</td>
</tr>
<tr>
<td><strong>Total dir &amp; ovhd exp per bu.</strong></td>
<td>3.31</td>
<td>3.80</td>
<td>3.36</td>
<td>3.94</td>
</tr>
<tr>
<td><strong>Less govt &amp; other income</strong></td>
<td>3.31</td>
<td>3.69</td>
<td>3.36</td>
<td>3.94</td>
</tr>
<tr>
<td><strong>With labor &amp; management</strong></td>
<td>3.43</td>
<td>3.91</td>
<td>3.44</td>
<td>3.04</td>
</tr>
<tr>
<td><strong>Net value per unit</strong></td>
<td>3.10</td>
<td>3.05</td>
<td>3.12</td>
<td>3.15</td>
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<tr>
<td><strong>Machinery cost per acre</strong></td>
<td>118.91</td>
<td>121.31</td>
<td>112.34</td>
<td>122.01</td>
</tr>
<tr>
<td><strong>Est. labor hours per acre</strong></td>
<td>2.15</td>
<td>2.17</td>
<td>2.22</td>
<td>2.05</td>
</tr>
</tbody>
</table>
## Crop Enterprise Analysis

### Minnesota and North Dakota Farm Business Management Education

#### Red River Valley, 2017

(Farms Sorted By Return to Overhead)

#### Hay, Alfalfa on Cash Rent

<table>
<thead>
<tr>
<th></th>
<th>Avg. Of All Farms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of farms</td>
<td>7</td>
</tr>
<tr>
<td>Acres</td>
<td>147.29</td>
</tr>
<tr>
<td>Yield per acre (ton)</td>
<td>2.83</td>
</tr>
<tr>
<td>Operators share of yield %</td>
<td>100.00</td>
</tr>
<tr>
<td>Value per ton</td>
<td>126.74</td>
</tr>
<tr>
<td>Total product return per acre</td>
<td>358.83</td>
</tr>
<tr>
<td>Other crop income per acre</td>
<td>12.52</td>
</tr>
<tr>
<td>Gross return per acre</td>
<td>371.35</td>
</tr>
<tr>
<td><strong>Direct Expenses</strong></td>
<td></td>
</tr>
<tr>
<td>Fertilizer</td>
<td>26.60</td>
</tr>
<tr>
<td>Crop chemicals</td>
<td>3.63</td>
</tr>
<tr>
<td>Crop insurance</td>
<td>1.60</td>
</tr>
<tr>
<td>Fuel &amp; oil</td>
<td>24.83</td>
</tr>
<tr>
<td>Repairs</td>
<td>42.53</td>
</tr>
<tr>
<td>Custom hire</td>
<td>13.74</td>
</tr>
<tr>
<td>Hired labor</td>
<td>32.24</td>
</tr>
<tr>
<td>Land rent</td>
<td>140.07</td>
</tr>
<tr>
<td>Machinery leases</td>
<td>57.16</td>
</tr>
<tr>
<td>Operating interest</td>
<td>10.06</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>18.77</td>
</tr>
<tr>
<td>Total direct expenses per acre</td>
<td>371.24</td>
</tr>
<tr>
<td>Return over direct exp per acre</td>
<td>0.12</td>
</tr>
<tr>
<td><strong>Overhead Expenses</strong></td>
<td></td>
</tr>
<tr>
<td>Hired labor</td>
<td>15.54</td>
</tr>
<tr>
<td>Machinery leases</td>
<td>3.96</td>
</tr>
<tr>
<td>Farm insurance</td>
<td>5.27</td>
</tr>
<tr>
<td>Utilities</td>
<td>4.31</td>
</tr>
<tr>
<td>Dues &amp; professional fees</td>
<td>4.08</td>
</tr>
<tr>
<td>Interest</td>
<td>1.25</td>
</tr>
<tr>
<td>Mach &amp; bldg depreciation</td>
<td>19.82</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>9.13</td>
</tr>
<tr>
<td>Total overhead expenses per acre</td>
<td>63.37</td>
</tr>
<tr>
<td>Total dir &amp; ovhd expenses per acre</td>
<td>434.60</td>
</tr>
<tr>
<td>Net return per acre</td>
<td>-63.25</td>
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<tr>
<td>Government payments</td>
<td>2.27</td>
</tr>
<tr>
<td>Net return with govt pmts</td>
<td>-60.98</td>
</tr>
<tr>
<td>Labor &amp; management charge</td>
<td>40.19</td>
</tr>
<tr>
<td>Net return over lbr &amp; mgt</td>
<td>-101.17</td>
</tr>
<tr>
<td><strong>Cost of Production</strong></td>
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</tr>
<tr>
<td>Total direct expense per ton</td>
<td>131.12</td>
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<tr>
<td>Total dir &amp; ovhd exp per ton</td>
<td>153.50</td>
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<td>Less govt &amp; other income</td>
<td>148.28</td>
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<tr>
<td>With labor &amp; management</td>
<td>162.47</td>
</tr>
<tr>
<td>Net value per unit</td>
<td>126.74</td>
</tr>
<tr>
<td>Machinery cost per acre</td>
<td>161.16</td>
</tr>
<tr>
<td>Est. labor hours per acre</td>
<td>2.15</td>
</tr>
</tbody>
</table>
### Soybeans on Owned Land

<table>
<thead>
<tr>
<th></th>
<th>Avg. Of</th>
<th>Low 20%</th>
<th>40 - 60%</th>
<th>High 20%</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>All Farms</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of farms</td>
<td>110</td>
<td>22</td>
<td>22</td>
<td>22</td>
</tr>
<tr>
<td>Acres</td>
<td>276.31</td>
<td>298.03</td>
<td>298.33</td>
<td>290.48</td>
</tr>
<tr>
<td>Yield per acre (bu.)</td>
<td>39.66</td>
<td>31.57</td>
<td>39.93</td>
<td>49.02</td>
</tr>
<tr>
<td>Operators share of yield %</td>
<td>100.00</td>
<td>100.00</td>
<td>100.00</td>
<td>100.00</td>
</tr>
<tr>
<td>Value per bu.</td>
<td>9.02</td>
<td>8.97</td>
<td>9.01</td>
<td>9.04</td>
</tr>
<tr>
<td>Total product return per acre</td>
<td>357.65</td>
<td>283.27</td>
<td>359.77</td>
<td>443.16</td>
</tr>
<tr>
<td>Hedging gains/losses per acre</td>
<td>0.82</td>
<td>-</td>
<td>-</td>
<td>3.90</td>
</tr>
<tr>
<td>Crop insurance per acre</td>
<td>14.63</td>
<td>25.13</td>
<td>10.94</td>
<td>4.85</td>
</tr>
<tr>
<td>Other crop income per acre</td>
<td>4.73</td>
<td>1.81</td>
<td>2.63</td>
<td>13.64</td>
</tr>
<tr>
<td>Gross return per acre</td>
<td>377.84</td>
<td>310.21</td>
<td>373.34</td>
<td>465.55</td>
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</table>

### Direct Expenses

<table>
<thead>
<tr>
<th>Item</th>
<th>Amount (bu.)</th>
<th>Amount (bu.)</th>
<th>Amount (bu.)</th>
<th>Amount (bu.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seed and plants</td>
<td>65.57</td>
<td>69.28</td>
<td>67.94</td>
<td>63.12</td>
</tr>
<tr>
<td>Fertilizer</td>
<td>11.18</td>
<td>20.82</td>
<td>11.70</td>
<td>5.73</td>
</tr>
<tr>
<td>Crop chemicals</td>
<td>37.63</td>
<td>40.83</td>
<td>37.44</td>
<td>35.72</td>
</tr>
<tr>
<td>Crop insurance</td>
<td>21.54</td>
<td>23.10</td>
<td>22.06</td>
<td>20.94</td>
</tr>
<tr>
<td>Repairs</td>
<td>25.01</td>
<td>33.78</td>
<td>17.25</td>
<td>22.00</td>
</tr>
<tr>
<td>Custom hire</td>
<td>3.50</td>
<td>6.70</td>
<td>5.42</td>
<td>1.31</td>
</tr>
<tr>
<td>Hired labor</td>
<td>2.51</td>
<td>5.98</td>
<td>1.18</td>
<td>0.60</td>
</tr>
<tr>
<td>Operating interest</td>
<td>5.23</td>
<td>4.59</td>
<td>5.64</td>
<td>4.39</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>3.78</td>
<td>5.61</td>
<td>6.14</td>
<td>0.80</td>
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<tr>
<td>Total direct expenses per acre</td>
<td>189.14</td>
<td>227.01</td>
<td>184.35</td>
<td>167.84</td>
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<td>Return over direct exp per acre</td>
<td>188.69</td>
<td>83.20</td>
<td>188.99</td>
<td>297.71</td>
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</table>

### Overhead Expenses

<table>
<thead>
<tr>
<th>Item</th>
<th>Amount (bu.)</th>
<th>Amount (bu.)</th>
<th>Amount (bu.)</th>
<th>Amount (bu.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hired labor</td>
<td>14.71</td>
<td>12.03</td>
<td>18.13</td>
<td>20.48</td>
</tr>
<tr>
<td>Machinery leases</td>
<td>2.72</td>
<td>0.82</td>
<td>3.39</td>
<td>4.11</td>
</tr>
<tr>
<td>Building leases</td>
<td>1.10</td>
<td>0.91</td>
<td>0.54</td>
<td>1.60</td>
</tr>
<tr>
<td>RE &amp; pers. property taxes</td>
<td>23.19</td>
<td>18.58</td>
<td>24.31</td>
<td>23.73</td>
</tr>
<tr>
<td>Farm insurance</td>
<td>8.06</td>
<td>8.90</td>
<td>5.65</td>
<td>7.46</td>
</tr>
<tr>
<td>Utilities</td>
<td>4.29</td>
<td>4.70</td>
<td>3.44</td>
<td>3.69</td>
</tr>
<tr>
<td>Dues &amp; professional fees</td>
<td>3.64</td>
<td>4.63</td>
<td>3.36</td>
<td>4.42</td>
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<td>Interest</td>
<td>41.51</td>
<td>33.89</td>
<td>32.27</td>
<td>52.34</td>
</tr>
<tr>
<td>Mach &amp; bldg depreciation</td>
<td>30.88</td>
<td>34.35</td>
<td>26.68</td>
<td>32.50</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>4.66</td>
<td>3.71</td>
<td>3.09</td>
<td>5.98</td>
</tr>
<tr>
<td>Total overhead expenses per acre</td>
<td>134.77</td>
<td>122.53</td>
<td>120.85</td>
<td>156.31</td>
</tr>
<tr>
<td>Total dir &amp; ovhd expenses per acre</td>
<td>323.91</td>
<td>349.54</td>
<td>305.20</td>
<td>324.15</td>
</tr>
<tr>
<td>Net return per acre</td>
<td>53.93</td>
<td>-39.33</td>
<td>68.14</td>
<td>141.40</td>
</tr>
<tr>
<td>Government payments</td>
<td>9.19</td>
<td>15.11</td>
<td>11.50</td>
<td>3.90</td>
</tr>
<tr>
<td>Net return with govt pmts</td>
<td>63.12</td>
<td>-24.21</td>
<td>79.64</td>
<td>145.30</td>
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<tr>
<td>Labor &amp; management charge</td>
<td>26.21</td>
<td>30.31</td>
<td>25.33</td>
<td>22.83</td>
</tr>
<tr>
<td>Net return over lbr &amp; mgt</td>
<td>36.91</td>
<td>-54.52</td>
<td>54.31</td>
<td>122.47</td>
</tr>
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</table>

### Cost of Production

<table>
<thead>
<tr>
<th>Item</th>
<th>Amount (bu.)</th>
<th>Amount (bu.)</th>
<th>Amount (bu.)</th>
<th>Amount (bu.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total direct expense per bu.</td>
<td>4.77</td>
<td>7.19</td>
<td>4.62</td>
<td>3.42</td>
</tr>
<tr>
<td>Total dir &amp; ovhd exp per bu.</td>
<td>8.17</td>
<td>11.07</td>
<td>7.64</td>
<td>6.61</td>
</tr>
<tr>
<td>Less govt &amp; other income</td>
<td>7.43</td>
<td>9.74</td>
<td>7.01</td>
<td>6.08</td>
</tr>
<tr>
<td>With labor &amp; management</td>
<td>8.09</td>
<td>10.70</td>
<td>7.65</td>
<td>6.54</td>
</tr>
<tr>
<td>Net value per unit</td>
<td>9.04</td>
<td>8.97</td>
<td>9.01</td>
<td>9.12</td>
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<tr>
<td>Machinery cost per acre</td>
<td>75.24</td>
<td>90.35</td>
<td>60.54</td>
<td>72.96</td>
</tr>
<tr>
<td>Est. labor hours per acre</td>
<td>1.55</td>
<td>1.71</td>
<td>1.68</td>
<td>1.51</td>
</tr>
</tbody>
</table>
# Crop Enterprise Analysis

**Minnesota and North Dakota Farm Business Management Education**  
**Red River Valley, 2017**  
*(Farms Sorted By Return to Overhead)*

## Soybeans on Cash Rent

<table>
<thead>
<tr>
<th></th>
<th>Avg. Of All Farms</th>
<th>Low 20%</th>
<th>40 - 60%</th>
<th>High 20%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of farms</td>
<td>178</td>
<td>35</td>
<td>35</td>
<td>36</td>
</tr>
<tr>
<td>Acres</td>
<td>682.00</td>
<td>625.50</td>
<td>942.50</td>
<td>681.15</td>
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<tr>
<td>Yield per acre (bu.)</td>
<td>39.02</td>
<td>32.78</td>
<td>39.04</td>
<td>45.70</td>
</tr>
<tr>
<td>Operators share of yield %</td>
<td>100.00</td>
<td>100.00</td>
<td>100.00</td>
<td>100.00</td>
</tr>
<tr>
<td>Value per bu.</td>
<td>9.06</td>
<td>9.04</td>
<td>9.05</td>
<td>9.03</td>
</tr>
<tr>
<td>Total product return per acre</td>
<td>353.59</td>
<td>296.24</td>
<td>358.73</td>
<td>412.76</td>
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<tr>
<td>Hedging gains/losses per acre</td>
<td>0.05</td>
<td>-0.36</td>
<td>0.05</td>
<td>0.36</td>
</tr>
<tr>
<td>Crop insurance per acre</td>
<td>10.67</td>
<td>23.12</td>
<td>7.81</td>
<td>5.43</td>
</tr>
<tr>
<td>Other crop income per acre</td>
<td>3.42</td>
<td>2.41</td>
<td>2.70</td>
<td>5.97</td>
</tr>
<tr>
<td>Gross return per acre</td>
<td>367.73</td>
<td>321.41</td>
<td>369.23</td>
<td>424.51</td>
</tr>
</tbody>
</table>

## Direct Expenses

<table>
<thead>
<tr>
<th>Item</th>
<th>Avg. Of All Farms</th>
<th>Low 20%</th>
<th>40 - 60%</th>
<th>High 20%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seed and plants</td>
<td>61.21</td>
<td>63.85</td>
<td>62.27</td>
<td>57.31</td>
</tr>
<tr>
<td>Fertilizer</td>
<td>10.39</td>
<td>13.65</td>
<td>10.15</td>
<td>6.84</td>
</tr>
<tr>
<td>Crop chemicals</td>
<td>35.98</td>
<td>40.34</td>
<td>38.16</td>
<td>33.47</td>
</tr>
<tr>
<td>Crop insurance</td>
<td>20.07</td>
<td>20.15</td>
<td>24.15</td>
<td>19.63</td>
</tr>
<tr>
<td>Fuel &amp; oil</td>
<td>12.21</td>
<td>12.27</td>
<td>10.83</td>
<td>12.62</td>
</tr>
<tr>
<td>Repairs</td>
<td>21.50</td>
<td>21.17</td>
<td>21.70</td>
<td>18.63</td>
</tr>
<tr>
<td>Custom hire</td>
<td>3.93</td>
<td>7.06</td>
<td>2.46</td>
<td>0.86</td>
</tr>
<tr>
<td>Hired labor</td>
<td>2.71</td>
<td>4.53</td>
<td>2.12</td>
<td>0.32</td>
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<tr>
<td>Land rent</td>
<td>131.05</td>
<td>157.51</td>
<td>128.75</td>
<td>128.09</td>
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<tr>
<td>Operating interest</td>
<td>5.64</td>
<td>7.30</td>
<td>5.08</td>
<td>5.55</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>3.39</td>
<td>5.15</td>
<td>4.15</td>
<td>1.21</td>
</tr>
<tr>
<td>Total direct expenses per acre</td>
<td>308.09</td>
<td>352.99</td>
<td>309.83</td>
<td>284.52</td>
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<tr>
<td>Return over direct exp per acre</td>
<td>59.64</td>
<td>-31.58</td>
<td>59.41</td>
<td>139.99</td>
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</table>

## Overhead Expenses

<table>
<thead>
<tr>
<th>Item</th>
<th>Avg. Of All Farms</th>
<th>Low 20%</th>
<th>40 - 60%</th>
<th>High 20%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hired labor</td>
<td>11.59</td>
<td>7.02</td>
<td>14.41</td>
<td>16.81</td>
</tr>
<tr>
<td>Machinery leases</td>
<td>4.93</td>
<td>3.95</td>
<td>4.09</td>
<td>4.92</td>
</tr>
<tr>
<td>Building leases</td>
<td>1.45</td>
<td>3.99</td>
<td>0.75</td>
<td>1.42</td>
</tr>
<tr>
<td>Farm insurance</td>
<td>6.14</td>
<td>5.33</td>
<td>5.89</td>
<td>6.65</td>
</tr>
<tr>
<td>Utilities</td>
<td>3.50</td>
<td>2.62</td>
<td>3.38</td>
<td>3.26</td>
</tr>
<tr>
<td>Dues &amp; professional fees</td>
<td>3.45</td>
<td>2.37</td>
<td>3.69</td>
<td>4.11</td>
</tr>
<tr>
<td>Interest</td>
<td>2.22</td>
<td>2.65</td>
<td>2.52</td>
<td>1.79</td>
</tr>
<tr>
<td>Mach &amp; bldg depreciation</td>
<td>25.77</td>
<td>23.62</td>
<td>25.46</td>
<td>26.79</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>3.57</td>
<td>1.79</td>
<td>3.98</td>
<td>3.92</td>
</tr>
<tr>
<td>Total overhead expenses per acre</td>
<td>62.63</td>
<td>53.54</td>
<td>64.17</td>
<td>69.68</td>
</tr>
<tr>
<td>Total dir &amp; ovhd expenses per acre</td>
<td>370.72</td>
<td>406.53</td>
<td>374.00</td>
<td>354.20</td>
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<tr>
<td>Net return per acre</td>
<td>-2.99</td>
<td>-85.12</td>
<td>-4.76</td>
<td>70.31</td>
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</tbody>
</table>

## Cost of Production

<table>
<thead>
<tr>
<th>Item</th>
<th>Avg. Of All Farms</th>
<th>Low 20%</th>
<th>40 - 60%</th>
<th>High 20%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total direct expense per bu.</td>
<td>7.89</td>
<td>10.77</td>
<td>7.82</td>
<td>6.23</td>
</tr>
<tr>
<td>Total dir &amp; ovhd exp per bu.</td>
<td>9.50</td>
<td>12.40</td>
<td>9.43</td>
<td>7.75</td>
</tr>
<tr>
<td>Less govt &amp; other income</td>
<td>8.96</td>
<td>11.40</td>
<td>9.03</td>
<td>7.37</td>
</tr>
<tr>
<td>With labor &amp; management</td>
<td>9.59</td>
<td>12.10</td>
<td>9.67</td>
<td>7.88</td>
</tr>
<tr>
<td>Net value per unit</td>
<td>9.06</td>
<td>9.03</td>
<td>9.05</td>
<td>9.04</td>
</tr>
<tr>
<td>Machinery cost per acre</td>
<td>69.71</td>
<td>70.57</td>
<td>64.85</td>
<td>64.01</td>
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<td>Est. labor hours per acre</td>
<td>1.38</td>
<td>1.18</td>
<td>1.40</td>
<td>1.37</td>
</tr>
</tbody>
</table>
Crop Enterprise Analysis  
*Minnesota and North Dakota Farm Business Management Education*  
*Red River Valley, 2017*  
*(Farms Sorted By Return to Overhead)*

**Soybeans Seed on Owned Land**

<table>
<thead>
<tr>
<th>Avg. Of All Farms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of farms</td>
</tr>
<tr>
<td>Acres</td>
</tr>
<tr>
<td>Yield per acre (bu.)</td>
</tr>
<tr>
<td>Operators share of yield %</td>
</tr>
<tr>
<td>Value per bu.</td>
</tr>
<tr>
<td>Total product return per acre</td>
</tr>
<tr>
<td>Crop insurance per acre</td>
</tr>
<tr>
<td>Other crop income per acre</td>
</tr>
<tr>
<td>Gross return per acre</td>
</tr>
</tbody>
</table>

**Direct Expenses**
- Seed and plants: 69.76
- Fertilizer: 23.74
- Crop chemicals: 32.60
- Crop insurance: 15.94
- Fuel & oil: 13.04
- Repairs: 26.78
- Custom hire: 10.77
- Machinery leases: 1.41
- Operating interest: 9.16
- Miscellaneous: 3.66

Total direct expenses per acre: 206.85
Return over direct expenses per acre: 226.36

**Overhead Expenses**
- Hired labor: 12.83
- Machinery leases: 1.63
- Building leases: 0.57
- RE & pers. property taxes: 23.28
- Farm insurance: 8.78
- Utilities: 5.04
- Dues & professional fees: 4.73
- Interest: 43.78
- Mach & bldg depreciation: 36.24
- Miscellaneous: 6.09

Total overhead expenses per acre: 142.97
Total dir & ovhd expenses per acre: 349.83
Net return per acre: 83.39

Government payments: 12.41
Net return with govt pmts: 95.79
Labor & management charge: 31.01
Net return over lbr & mgt: 64.78

**Cost of Production**
- Total direct expense per bu.: 5.11
- Total dir & ovhd exp per bu.: 8.64
- Less govt & other income: 8.26
- With labor & management: 9.02

Net value per unit: 10.62
Machinery cost per acre: 87.19
Est. labor hours per acre: 1.87
## Crop Enterprise Analysis

**Minnesota and North Dakota Farm Business Management Education**  
**Red River Valley, 2017**  
*(Farms Sorted By Return to Overhead)*

### Soybeans Seed on Cash Rent

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of farms</td>
<td>15</td>
</tr>
<tr>
<td>Acres</td>
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</tr>
<tr>
<td>Yield per acre (bu.)</td>
<td>39.99</td>
</tr>
<tr>
<td>Operators share of yield %</td>
<td>100.00</td>
</tr>
<tr>
<td>Value per bu.</td>
<td>10.65</td>
</tr>
<tr>
<td>Total product return per acre</td>
<td>425.89</td>
</tr>
<tr>
<td>Crop insurance per acre</td>
<td>7.57</td>
</tr>
<tr>
<td>Other crop income per acre</td>
<td>1.62</td>
</tr>
<tr>
<td>Gross return per acre</td>
<td>435.09</td>
</tr>
</tbody>
</table>

### Direct Expenses

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seed and plants</td>
<td>63.19</td>
</tr>
<tr>
<td>Fertilizer</td>
<td>12.97</td>
</tr>
<tr>
<td>Crop chemicals</td>
<td>35.56</td>
</tr>
<tr>
<td>Crop insurance</td>
<td>17.23</td>
</tr>
<tr>
<td>Fuel &amp; oil</td>
<td>12.92</td>
</tr>
<tr>
<td>Repairs</td>
<td>27.59</td>
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<td>Custom hire</td>
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</tr>
<tr>
<td>Land rent</td>
<td>120.07</td>
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<td>Machinery leases</td>
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<tr>
<td>Total direct expenses per acre</td>
<td>305.49</td>
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<tr>
<td>Return over direct exp per acre</td>
<td>129.60</td>
</tr>
</tbody>
</table>

### Overhead Expenses

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hired labor</td>
<td>11.86</td>
</tr>
<tr>
<td>Machinery leases</td>
<td>2.70</td>
</tr>
<tr>
<td>Building leases</td>
<td>1.02</td>
</tr>
<tr>
<td>Farm insurance</td>
<td>7.41</td>
</tr>
<tr>
<td>Utilities</td>
<td>3.84</td>
</tr>
<tr>
<td>Dues &amp; professional fees</td>
<td>5.09</td>
</tr>
<tr>
<td>Interest</td>
<td>1.81</td>
</tr>
<tr>
<td>Mach &amp; bldg depreciation</td>
<td>29.44</td>
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<tr>
<td>Miscellaneous</td>
<td>3.34</td>
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<td>Total dir &amp; ovhd expenses per acre</td>
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<table>
<thead>
<tr>
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<tbody>
<tr>
<td>Government payments</td>
<td>11.25</td>
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<tr>
<td>Net return with govt pmts</td>
<td>74.35</td>
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<tr>
<td>Labor &amp; management charge</td>
<td>30.24</td>
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<td>Net return over lbr &amp; mgt</td>
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### Cost of Production

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>Total direct expense per bu.</td>
<td>7.64</td>
</tr>
<tr>
<td>Total dir &amp; ovhd exp per bu.</td>
<td>9.30</td>
</tr>
<tr>
<td>Less govt &amp; other income</td>
<td>8.79</td>
</tr>
<tr>
<td>With labor &amp; management</td>
<td>9.55</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net value per unit</td>
<td>10.65</td>
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<tr>
<td>Machinery cost per acre</td>
<td>74.76</td>
</tr>
<tr>
<td>Est. labor hours per acre</td>
<td>1.57</td>
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## Soybeans, Food on Owned Land

<table>
<thead>
<tr>
<th></th>
<th>Avg. Of All Farms</th>
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</thead>
<tbody>
<tr>
<td>Number of farms</td>
<td>7</td>
</tr>
<tr>
<td>Acres</td>
<td>171.57</td>
</tr>
<tr>
<td>Yield per acre (bu.)</td>
<td>35.13</td>
</tr>
<tr>
<td>Operators share of yield %</td>
<td>100.00</td>
</tr>
<tr>
<td>Value per bu.</td>
<td>12.59</td>
</tr>
<tr>
<td>Total product return per acre</td>
<td>442.23</td>
</tr>
<tr>
<td>Crop insurance per acre</td>
<td>9.30</td>
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<tr>
<td>Other crop income per acre</td>
<td>1.05</td>
</tr>
<tr>
<td>Gross return per acre</td>
<td>452.57</td>
</tr>
</tbody>
</table>

### Direct Expenses
- Seed and plants: 34.40
- Fertilizer: 18.13
- Crop chemicals: 52.73
- Crop insurance: 21.01
- Fuel & oil: 11.69
- Repairs: 22.03
- Custom hire: 2.86
- Hired labor: 5.81
- Operating interest: 7.71
- Miscellaneous: 2.81

Total direct expenses per acre: 179.18
Return over direct exp per acre: 273.39

### Overhead Expenses
- Hired labor: 5.05
- Machinery leases: 6.27
- Building leases: 4.07
- RE & pers. property taxes: 23.87
- Farm insurance: 6.03
- Utilities: 2.77
- Dues & professional fees: 5.01
- Interest: 79.43
- Mach & bldg depreciation: 22.91
- Miscellaneous: 2.73

Total overhead expenses per acre: 158.14
Total dir & ovhd expenses per acre: 337.33
Net return per acre: 115.24

### Cost of Production
- Total direct expense per bu.: 5.10
- Total dir & ovhd exp per bu.: 9.60
- Less govt & other income: 9.27
- With labor & management: 9.72

Net value per unit: 12.59
Machinery cost per acre: 66.61
Est. labor hours per acre: 0.80
Crop Enterprise Analysis
Minnesota and North Dakota Farm Business Management Education
Red River Valley, 2017
(Farms Sorted By Return to Overhead)

Soybeans, Food on Cash Rent

<table>
<thead>
<tr>
<th>Avg. Of All Farms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of farms</td>
</tr>
<tr>
<td>Acres</td>
</tr>
<tr>
<td>Yield per acre (bu.)</td>
</tr>
<tr>
<td>Operators share of yield %</td>
</tr>
<tr>
<td>Value per bu.</td>
</tr>
<tr>
<td>Total product return per acre</td>
</tr>
<tr>
<td>Hedging gains/losses per acre</td>
</tr>
<tr>
<td>Crop insurance per acre</td>
</tr>
<tr>
<td>Other crop income per acre</td>
</tr>
<tr>
<td>Gross return per acre</td>
</tr>
</tbody>
</table>

**Direct Expenses**
- Seed and plants: 24.14
- Fertilizer: 15.84
- Crop chemicals: 47.04
- Crop insurance: 19.31
- Fuel & oil: 14.37
- Repairs: 22.99
- Custom hire: 4.67
- Hired labor: 3.75
- Land rent: 164.52
- Operating interest: 7.84
- Miscellaneous: 4.36

Total direct expenses per acre: 328.83
Return over direct exp per acre: 98.22

**Overhead Expenses**
- Hired labor: 8.67
- Machinery leases: 5.16
- Building leases: 3.43
- Farm insurance: 5.85
- Utilities: 3.46
- Dues & professional fees: 4.09
- Interest: 2.49
- Mach & bldg depreciation: 22.80
- Miscellaneous: 2.96

Total overhead expenses per acre: 58.92
Total dir & ovhd expenses per acre: 387.75
Net return per acre: 39.30

Government payments: 7.35
Net return with govt pmts: 46.65
Labor & management charge: 21.16
Net return over lbr & mgt: 25.49

**Cost of Production**
- Total direct expense per bu.: 9.86
- Total dir & ovhd exp per bu.: 11.63
- Less govt & other income: 10.91
- With labor & management: 11.54

Net value per unit: 12.53
Machinery cost per acre: 71.88
Est. labor hours per acre: 1.08
Crop Enterprise Analysis  
Minnesota and North Dakota Farm Business Management Education  
Red River Valley, 2017  
(Farms Sorted By Return to Overhead)

**Sugar Beets on Owned Land, Excluding Joint Venture**

<table>
<thead>
<tr>
<th>Avg. Of All Farms</th>
<th>Low 20%</th>
<th>40 - 60%</th>
<th>High 20%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of farms</td>
<td>36</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>Acres</td>
<td>129.95</td>
<td>114.73</td>
<td>154.95</td>
</tr>
<tr>
<td>Yield per acre (ton)</td>
<td>29.11</td>
<td>28.58</td>
<td>23.45</td>
</tr>
<tr>
<td>Operators share of yield %</td>
<td>100.00</td>
<td>100.00</td>
<td>100.00</td>
</tr>
<tr>
<td>Value per ton</td>
<td>39.14</td>
<td>33.27</td>
<td>46.36</td>
</tr>
<tr>
<td>Total product return per acre</td>
<td>1,139.60</td>
<td>950.78</td>
<td>1,087.06</td>
</tr>
<tr>
<td>Crop insurance per acre</td>
<td>2.44</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Other crop income per acre</td>
<td>5.96</td>
<td>16.02</td>
<td>5.47</td>
</tr>
<tr>
<td>Gross return per acre</td>
<td>1,148.00</td>
<td>966.81</td>
<td>1,092.53</td>
</tr>
</tbody>
</table>

**Direct Expenses**

| Seed and plants | 218.27 | 211.92 | 204.68 | 231.49 |
| Fertilizer      | 74.94  | 89.31  | 77.45  | 64.47  |
| Crop chemicals  | 109.48 | 117.76 | 106.35 | 126.59 |
| Crop insurance  | 29.12  | 36.62  | 33.86  | 22.24  |
| Fuel & oil      | 51.69  | 66.25  | 50.74  | 50.64  |
| Repairs         | 92.84  | 110.41 | 90.56  | 101.67 |
| Custom hire     | 13.41  | 15.77  | 16.33  | 2.98   |
| Hired labor     | 34.50  | 51.56  | 12.44  | 30.48  |
| Machinery leases| 2.10   | -      | -      | 0.64   |
| Hauling and trucking | 9.30 | -      | 9.27   | 7.01   |
| Operating interest | 18.61 | 32.22  | 18.61  | 21.75  |
| Miscellaneous   | 3.22   | -      | 3.01   | 8.36   |
| Total direct expenses per acre | 657.49 | 731.83 | 623.31 | 668.21 |
| Return over direct exp per acre | 490.51 | 234.97 | 469.22 | 793.95 |

**Overhead Expenses**

| Custom hire         | 0.97   | 4.89   | 0.58   | -      |
| Hired labor         | 52.59  | 23.03  | 106.03 | 29.17  |
| Machinery leases    | 9.10   | 7.91   | 12.17  | 8.44   |
| Building leases     | 3.06   | 0.11   | 4.70   | 3.57   |
| RE & pers. property taxes | 27.25 | 18.80  | 28.62  | 31.97  |
| Farm insurance      | 19.44  | 16.96  | 20.97  | 18.07  |
| Utilities           | 11.64  | 9.03   | 12.80  | 12.87  |
| Dues & professional fees | 6.66 | 4.20   | 2.08   | 6.93   |
| Interest            | 53.16  | 23.97  | 74.51  | 80.57  |
| Mach & bldg depreciation | 104.05 | 104.87 | 98.69  | 124.76 |
| Miscellaneous       | 13.32  | 5.16   | 20.65  | 13.54  |
| Total overhead expenses per acre | 301.24 | 218.95 | 381.81 | 324.90 |
| Total dir & ovhd expenses per acre | 958.73 | 950.78 | 1,005.12 | 998.12 |
| Net return per acre | 189.27 | 16.03  | 87.41  | 464.05 |
| Government payments | 11.85  | 9.92   | 10.42  | 9.51   |
| Net return with govt pmts | 201.13 | 25.95  | 97.83  | 473.56 |
| Labor & management charge | 99.51 | 83.27  | 77.85  | 155.77 |
| Net return over lbr & mgt | 101.61 | 57.32  | 19.98  | 317.79 |

**Cost of Production**

| Total direct expense per ton | 22.58 | 25.61 | 26.58 | 20.25 |
| Total dir & ovhd exp per ton | 32.93 | 33.27 | 42.96 | 30.25 |
| Less govt & other income     | 32.23 | 32.36 | 42.19 | 29.94 |
| With labor & management      | 35.65 | 35.27 | 45.50 | 34.66 |
| Net value per unit            | 39.14 | 33.27 | 46.36 | 44.29 |
| Machinery cost per acre       | 276.67 | 308.46 | 282.94 | 292.16 |
| Est. labor hours per acre     | 5.68  | 4.89  | 5.56  | 6.18   |

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### Crop Enterprise Analysis

**Minnesota and North Dakota Farm Business Management Education**

**Red River Valley, 2017**

*(Farms Sorted By Return to Overhead)*

**Sugar Beets on Owned Land, Including Joint Venture**

<table>
<thead>
<tr>
<th>All Farms</th>
<th>Avg. Of</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Number of farms</strong></td>
<td>19</td>
</tr>
<tr>
<td><strong>Acres</strong></td>
<td>160.22</td>
</tr>
<tr>
<td><strong>Yield per acre (ton)</strong></td>
<td>31.67</td>
</tr>
<tr>
<td><strong>Operators share of yield %</strong></td>
<td>100.00</td>
</tr>
<tr>
<td><strong>Value per ton</strong></td>
<td>40.80</td>
</tr>
<tr>
<td><strong>Total product return per acre</strong></td>
<td>1,291.97</td>
</tr>
<tr>
<td><strong>Crop insurance per acre</strong></td>
<td>17.44</td>
</tr>
<tr>
<td><strong>Other crop income per acre</strong></td>
<td>2.71</td>
</tr>
<tr>
<td><strong>Gross return per acre</strong></td>
<td>1,312.12</td>
</tr>
</tbody>
</table>

#### Direct Expenses

- **Seed and plants**
- **Fertilizer**
- **Crop chemicals**
- **Crop insurance**
- **Fuel & oil**
- **Repairs**
- **Custom hire**
- **Hired labor**
- **Stock/quota lease**
- **Machinery leases**
- **Hauling and trucking**
- **Operating interest**
- **Miscellaneous**

**Total direct expenses per acre** | 841.19

**Return over direct exp per acre** | 470.93

#### Overhead Expenses

- **Hired labor**
- **Machinery leases**
- **Building leases**
- **RE & pers. property taxes**
- **Farm insurance**
- **Utilities**
- **Dues & professional fees**
- **Interest**
- **Mach & bldg depreciation**
- **Miscellaneous**

**Total overhead expenses per acre** | 265.12

**Total dir & ovhd expenses per acre** | 1,106.31

**Net return per acre** | 205.81

**Government payments** | 11.20

**Net return with govt pmts** | 217.01

**Labor & management charge** | 80.12

**Net return over lbr & mgt** | 136.89

#### Cost of Production

- **Total direct expense per ton** | 26.56
- **Total dir & ovhd exp per ton** | 34.94
- **Less govt & other income** | 33.95
- **With labor & management** | 36.48

**Net value per unit** | 40.80

**Machinery cost per acre** | 257.55

**Est. labor hours per acre** | 4.39
### Crop Enterprise Analysis

**Minnesota and North Dakota Farm Business Management Education**

**Red River Valley, 2017**

*(Farms Sorted By Return to Overhead)*

#### Sugar Beets on Cash Rent, Excluding Joint Venture

<table>
<thead>
<tr>
<th></th>
<th>Avg. Of All Farms</th>
<th>Low 20%</th>
<th>40 - 60%</th>
<th>High 20%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of farms</td>
<td>55</td>
<td>11</td>
<td>11</td>
<td>11</td>
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<tr>
<td>Acres</td>
<td>247.33</td>
<td>279.97</td>
<td>298.91</td>
<td>228.18</td>
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<tr>
<td>Yield per acre (ton)</td>
<td>31.30</td>
<td>30.57</td>
<td>30.18</td>
<td>33.26</td>
</tr>
<tr>
<td>Operators share of yield %</td>
<td>100.00</td>
<td>100.00</td>
<td>100.00</td>
<td>100.00</td>
</tr>
<tr>
<td>Value per ton</td>
<td>37.29</td>
<td>29.30</td>
<td>37.46</td>
<td>43.76</td>
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<tr>
<td>Total product return per acre</td>
<td>1,167.13</td>
<td>895.64</td>
<td>1,130.43</td>
<td>1,458.66</td>
</tr>
<tr>
<td>Crop insurance per acre</td>
<td>7.68</td>
<td>9.32</td>
<td>17.77</td>
<td>-</td>
</tr>
<tr>
<td>Other crop income per acre</td>
<td>8.77</td>
<td>19.53</td>
<td>8.11</td>
<td>2.94</td>
</tr>
<tr>
<td>Gross return per acre</td>
<td>1,183.59</td>
<td>924.49</td>
<td>1,156.31</td>
<td>1,458.60</td>
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</tbody>
</table>

#### Direct Expenses

<table>
<thead>
<tr>
<th>Item</th>
<th>Avg. Of All Farms</th>
<th>Low 20%</th>
<th>40 - 60%</th>
<th>High 20%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seed and plants</td>
<td>217.00</td>
<td>206.97</td>
<td>219.86</td>
<td>220.83</td>
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<tr>
<td>Fertilizer</td>
<td>75.42</td>
<td>87.00</td>
<td>66.95</td>
<td>84.02</td>
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<tr>
<td>Crop chemicals</td>
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<td>113.10</td>
<td>87.25</td>
<td>94.40</td>
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<tr>
<td>Crop insurance</td>
<td>30.49</td>
<td>37.89</td>
<td>30.29</td>
<td>23.47</td>
</tr>
<tr>
<td>Fuel &amp; oil</td>
<td>51.10</td>
<td>50.17</td>
<td>58.28</td>
<td>47.13</td>
</tr>
<tr>
<td>Repairs</td>
<td>88.06</td>
<td>73.89</td>
<td>94.86</td>
<td>77.11</td>
</tr>
<tr>
<td>Custom hire</td>
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<td>11.87</td>
<td>16.81</td>
<td>15.11</td>
</tr>
<tr>
<td>Hired labor</td>
<td>39.90</td>
<td>28.03</td>
<td>54.16</td>
<td>28.62</td>
</tr>
<tr>
<td>Land rent</td>
<td>135.33</td>
<td>148.16</td>
<td>99.80</td>
<td>141.61</td>
</tr>
<tr>
<td>Machinery leases</td>
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<td>-</td>
<td>-</td>
<td>1.88</td>
</tr>
<tr>
<td>Hauling and trucking</td>
<td>13.19</td>
<td>-</td>
<td>28.76</td>
<td>0.90</td>
</tr>
<tr>
<td>Operating interest</td>
<td>15.82</td>
<td>21.05</td>
<td>18.56</td>
<td>7.65</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>3.17</td>
<td>0.17</td>
<td>4.46</td>
<td>3.19</td>
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<tr>
<td>Total direct expenses per acre</td>
<td>787.86</td>
<td>778.31</td>
<td>780.06</td>
<td>745.94</td>
</tr>
<tr>
<td>Return over direct exp per acre</td>
<td>395.73</td>
<td>146.18</td>
<td>376.25</td>
<td>712.66</td>
</tr>
</tbody>
</table>

#### Overhead Expenses

<table>
<thead>
<tr>
<th>Item</th>
<th>Avg. Of All Farms</th>
<th>Low 20%</th>
<th>40 - 60%</th>
<th>High 20%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Custom hire</td>
<td>1.16</td>
<td>3.87</td>
<td>1.18</td>
<td>-</td>
</tr>
<tr>
<td>Hired labor</td>
<td>54.92</td>
<td>80.48</td>
<td>34.34</td>
<td>51.30</td>
</tr>
<tr>
<td>Machinery leases</td>
<td>10.91</td>
<td>16.95</td>
<td>8.27</td>
<td>11.91</td>
</tr>
<tr>
<td>Building leases</td>
<td>3.76</td>
<td>10.61</td>
<td>2.20</td>
<td>0.40</td>
</tr>
<tr>
<td>Farm insurance</td>
<td>13.76</td>
<td>7.71</td>
<td>13.59</td>
<td>13.12</td>
</tr>
<tr>
<td>Utilities</td>
<td>10.44</td>
<td>8.90</td>
<td>13.50</td>
<td>8.80</td>
</tr>
<tr>
<td>Dues &amp; professional fees</td>
<td>7.80</td>
<td>9.43</td>
<td>9.35</td>
<td>3.41</td>
</tr>
<tr>
<td>Interest</td>
<td>6.97</td>
<td>4.10</td>
<td>12.01</td>
<td>4.92</td>
</tr>
<tr>
<td>Mach &amp; bldg depreciation</td>
<td>93.72</td>
<td>78.62</td>
<td>95.02</td>
<td>88.28</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>10.30</td>
<td>13.74</td>
<td>6.46</td>
<td>11.91</td>
</tr>
<tr>
<td>Total overhead expenses per acre</td>
<td>213.72</td>
<td>234.41</td>
<td>195.93</td>
<td>194.04</td>
</tr>
<tr>
<td>Total dir &amp; ovhd expenses per acre</td>
<td>1,001.58</td>
<td>1,012.72</td>
<td>975.92</td>
<td>939.99</td>
</tr>
<tr>
<td>Net return per acre</td>
<td>182.00</td>
<td>-88.23</td>
<td>180.32</td>
<td>518.61</td>
</tr>
<tr>
<td>Government payments</td>
<td>11.82</td>
<td>7.67</td>
<td>13.46</td>
<td>14.92</td>
</tr>
<tr>
<td>Net return with govt pmts</td>
<td>193.82</td>
<td>-80.57</td>
<td>193.79</td>
<td>535.53</td>
</tr>
<tr>
<td>Labor &amp; management charge</td>
<td>91.91</td>
<td>63.48</td>
<td>89.81</td>
<td>101.06</td>
</tr>
<tr>
<td>Net return over lbr &amp; mgt</td>
<td>101.91</td>
<td>-144.04</td>
<td>103.98</td>
<td>432.47</td>
</tr>
</tbody>
</table>

#### Cost of Production

<table>
<thead>
<tr>
<th>Item</th>
<th>Avg. Of All Farms</th>
<th>Low 20%</th>
<th>40 - 60%</th>
<th>High 20%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total direct expense per ton</td>
<td>25.17</td>
<td>25.46</td>
<td>25.85</td>
<td>22.43</td>
</tr>
<tr>
<td>Total dir &amp; ovhd exp per ton</td>
<td>32.00</td>
<td>33.13</td>
<td>32.34</td>
<td>28.26</td>
</tr>
<tr>
<td>Less govt &amp; other income</td>
<td>31.10</td>
<td>31.93</td>
<td>31.04</td>
<td>27.72</td>
</tr>
<tr>
<td>With labor &amp; management</td>
<td>34.04</td>
<td>34.01</td>
<td>34.01</td>
<td>30.76</td>
</tr>
<tr>
<td>Net value per unit</td>
<td>37.29</td>
<td>29.30</td>
<td>37.46</td>
<td>43.76</td>
</tr>
<tr>
<td>Machinery cost per acre</td>
<td>258.71</td>
<td>223.21</td>
<td>281.51</td>
<td>238.99</td>
</tr>
<tr>
<td>Est. labor hours per acre</td>
<td>5.58</td>
<td>5.94</td>
<td>5.09</td>
<td>4.56</td>
</tr>
</tbody>
</table>
## Sugar Beets on Cash Rent, Including Joint Venture

<table>
<thead>
<tr>
<th></th>
<th><strong>Low 20%</strong></th>
<th><strong>40 - 60%</strong></th>
<th><strong>High 20%</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Number of farms</strong></td>
<td>43</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td><strong>Acres</strong></td>
<td>289.71</td>
<td>220.80</td>
<td>356.83</td>
</tr>
<tr>
<td><strong>Yield per acre (ton)</strong></td>
<td>30.38</td>
<td>22.33</td>
<td>30.52</td>
</tr>
<tr>
<td><strong>Operators share of yield %</strong></td>
<td>100.00</td>
<td>100.00</td>
<td>100.00</td>
</tr>
<tr>
<td><strong>Value per ton</strong></td>
<td>40.72</td>
<td>40.95</td>
<td>40.56</td>
</tr>
<tr>
<td><strong>Total product return per acre</strong></td>
<td>1,237.07</td>
<td>914.60</td>
<td>1,237.62</td>
</tr>
<tr>
<td><strong>Crop insurance per acre</strong></td>
<td>22.22</td>
<td>123.65</td>
<td>19.22</td>
</tr>
<tr>
<td><strong>Other crop income per acre</strong></td>
<td>10.60</td>
<td>15.30</td>
<td>0.90</td>
</tr>
<tr>
<td><strong>Gross return per acre</strong></td>
<td>1,269.89</td>
<td>1,053.55</td>
<td>1,257.74</td>
</tr>
</tbody>
</table>

### Direct Expenses

<table>
<thead>
<tr>
<th>Item</th>
<th><strong>Low 20%</strong></th>
<th><strong>40 - 60%</strong></th>
<th><strong>High 20%</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Seed and plants</strong></td>
<td>224.67</td>
<td>234.82</td>
<td>212.16</td>
</tr>
<tr>
<td><strong>Fertilizer</strong></td>
<td>76.38</td>
<td>89.58</td>
<td>69.36</td>
</tr>
<tr>
<td><strong>Crop chemicals</strong></td>
<td>103.37</td>
<td>110.88</td>
<td>109.77</td>
</tr>
<tr>
<td><strong>Crop insurance</strong></td>
<td>32.40</td>
<td>44.20</td>
<td>29.51</td>
</tr>
<tr>
<td><strong>Fuel &amp; oil</strong></td>
<td>52.54</td>
<td>49.15</td>
<td>56.27</td>
</tr>
<tr>
<td><strong>Repairs</strong></td>
<td>85.98</td>
<td>81.00</td>
<td>92.17</td>
</tr>
<tr>
<td><strong>Custom hire</strong></td>
<td>13.76</td>
<td>6.44</td>
<td>12.84</td>
</tr>
<tr>
<td><strong>Hired labor</strong></td>
<td>38.25</td>
<td>37.94</td>
<td>46.93</td>
</tr>
<tr>
<td><strong>Land rent</strong></td>
<td>135.78</td>
<td>146.09</td>
<td>127.48</td>
</tr>
<tr>
<td><strong>Stock/quota lease</strong></td>
<td>169.46</td>
<td>138.76</td>
<td>139.49</td>
</tr>
<tr>
<td><strong>Machinery leases</strong></td>
<td>1.57</td>
<td>8.35</td>
<td>-</td>
</tr>
<tr>
<td><strong>Hauling and trucking</strong></td>
<td>21.21</td>
<td>25.59</td>
<td>27.61</td>
</tr>
<tr>
<td><strong>Operating interest</strong></td>
<td>23.57</td>
<td>26.04</td>
<td>11.77</td>
</tr>
<tr>
<td><strong>Miscellaneous</strong></td>
<td>3.52</td>
<td>1.12</td>
<td>6.39</td>
</tr>
<tr>
<td><strong>Total direct expenses per acre</strong></td>
<td>978.38</td>
<td>999.96</td>
<td>941.76</td>
</tr>
</tbody>
</table>

### Overhead Expenses

<table>
<thead>
<tr>
<th>Item</th>
<th><strong>Low 20%</strong></th>
<th><strong>40 - 60%</strong></th>
<th><strong>High 20%</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Hired labor</strong></td>
<td>45.36</td>
<td>58.50</td>
<td>43.30</td>
</tr>
<tr>
<td><strong>Machinery leases</strong></td>
<td>17.45</td>
<td>17.09</td>
<td>15.59</td>
</tr>
<tr>
<td><strong>Building leases</strong></td>
<td>5.51</td>
<td>1.44</td>
<td>10.51</td>
</tr>
<tr>
<td><strong>Farm insurance</strong></td>
<td>12.58</td>
<td>12.86</td>
<td>17.85</td>
</tr>
<tr>
<td><strong>Utilities</strong></td>
<td>8.78</td>
<td>10.75</td>
<td>11.68</td>
</tr>
<tr>
<td><strong>Dues &amp; professional fees</strong></td>
<td>6.31</td>
<td>3.53</td>
<td>7.16</td>
</tr>
<tr>
<td><strong>Mach &amp; bldg depreciation</strong></td>
<td>80.79</td>
<td>88.49</td>
<td>87.70</td>
</tr>
<tr>
<td><strong>Miscellaneous</strong></td>
<td>12.11</td>
<td>28.32</td>
<td>6.31</td>
</tr>
<tr>
<td><strong>Total overhead expenses per acre</strong></td>
<td>1,176.75</td>
<td>1,230.35</td>
<td>1,150.97</td>
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</table>

### Cost of Production

<table>
<thead>
<tr>
<th>Item</th>
<th><strong>Low 20%</strong></th>
<th><strong>40 - 60%</strong></th>
<th><strong>High 20%</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total direct expense per ton</strong></td>
<td>38.73</td>
<td>55.09</td>
<td>37.72</td>
</tr>
<tr>
<td><strong>Total dir &amp; ovhd expenses per ton</strong></td>
<td>37.33</td>
<td>48.54</td>
<td>36.49</td>
</tr>
<tr>
<td><strong>Less gov't &amp; other income</strong></td>
<td>40.38</td>
<td>52.16</td>
<td>39.69</td>
</tr>
<tr>
<td><strong>With labor &amp; management</strong></td>
<td>40.72</td>
<td>40.95</td>
<td>40.56</td>
</tr>
<tr>
<td><strong>Net value per unit</strong></td>
<td>257.66</td>
<td>254.86</td>
<td>267.27</td>
</tr>
<tr>
<td><strong>Machinery cost per acre</strong></td>
<td>4.91</td>
<td>4.87</td>
<td>5.52</td>
</tr>
<tr>
<td><strong>Est. labor hours per acre</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**Crop Enterprise Analysis**

*Minnesota and North Dakota Farm Business Management Education*

*Red River Valley, 2017*

*(Farms Sorted By Return to Overhead)*

**Sunflowers on Cash Rent**

<table>
<thead>
<tr>
<th>Avg. Of All Farms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of farms</td>
</tr>
<tr>
<td>Acres</td>
</tr>
<tr>
<td>Yield per acre (cwt.)</td>
</tr>
<tr>
<td>Operators share of yield %</td>
</tr>
<tr>
<td>Value per cwt.</td>
</tr>
<tr>
<td>Total product return per acre</td>
</tr>
<tr>
<td>Crop insurance per acre</td>
</tr>
<tr>
<td>Other crop income per acre</td>
</tr>
<tr>
<td>Gross return per acre</td>
</tr>
</tbody>
</table>

**Direct Expenses**

<table>
<thead>
<tr>
<th>Item</th>
<th>Cost per Acre</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seed and plants</td>
<td>35.66</td>
</tr>
<tr>
<td>Fertilizer</td>
<td>30.74</td>
</tr>
<tr>
<td>Crop chemicals</td>
<td>26.31</td>
</tr>
<tr>
<td>Crop insurance</td>
<td>14.51</td>
</tr>
<tr>
<td>Fuel &amp; oil</td>
<td>17.09</td>
</tr>
<tr>
<td>Repairs</td>
<td>32.39</td>
</tr>
<tr>
<td>Custom hire</td>
<td>3.82</td>
</tr>
<tr>
<td>Hired labor</td>
<td>4.17</td>
</tr>
<tr>
<td>Land rent</td>
<td>116.55</td>
</tr>
<tr>
<td>Operating interest</td>
<td>6.31</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>3.65</td>
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<tr>
<td>Total direct expenses per acre</td>
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</table>

**Return over direct exp per acre**

<table>
<thead>
<tr>
<th>Cost</th>
<th>Amount</th>
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<tr>
<td></td>
<td>165.63</td>
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**Overhead Expenses**

<table>
<thead>
<tr>
<th>Item</th>
<th>Cost per Acre</th>
</tr>
</thead>
<tbody>
<tr>
<td>Custom hire</td>
<td>0.61</td>
</tr>
<tr>
<td>Hired labor</td>
<td>4.73</td>
</tr>
<tr>
<td>Machinery leases</td>
<td>5.49</td>
</tr>
<tr>
<td>Building leases</td>
<td>2.50</td>
</tr>
<tr>
<td>Farm insurance</td>
<td>7.87</td>
</tr>
<tr>
<td>Utilities</td>
<td>6.88</td>
</tr>
<tr>
<td>Dues &amp; professional fees</td>
<td>8.30</td>
</tr>
<tr>
<td>Interest</td>
<td>3.46</td>
</tr>
<tr>
<td>Mach &amp; bldg depreciation</td>
<td>57.22</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>2.37</td>
</tr>
<tr>
<td>Total overhead expenses per acre</td>
<td>99.44</td>
</tr>
<tr>
<td>Total dir &amp; ovhd expenses per acre</td>
<td>390.64</td>
</tr>
<tr>
<td>Net return per acre</td>
<td>66.20</td>
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</table>

**Government payments**

<table>
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<tr>
<th>Cost</th>
<th>Amount</th>
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<tbody>
<tr>
<td></td>
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**Net return with govt pmts**

<table>
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<tr>
<th>Cost</th>
<th>Amount</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>68.46</td>
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</table>

**Labor & management charge**

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<tr>
<th>Cost</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>36.84</td>
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</table>

**Net return over lbr & mgt**

<table>
<thead>
<tr>
<th>Cost</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>31.62</td>
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</tbody>
</table>

**Cost of Production**

<table>
<thead>
<tr>
<th>Cost</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total direct expense per cwt.</td>
<td>12.75</td>
</tr>
<tr>
<td>Total dir &amp; ovhd exp per cwt.</td>
<td>17.10</td>
</tr>
<tr>
<td>Less govt &amp; other income</td>
<td>16.40</td>
</tr>
<tr>
<td>With labor &amp; management</td>
<td>18.02</td>
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</table>

**Net value per unit**

<table>
<thead>
<tr>
<th>Cost</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>19.40</td>
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</tbody>
</table>

**Machinery cost per acre**

<table>
<thead>
<tr>
<th>Cost</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>113.69</td>
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</tbody>
</table>

**Est. labor hours per acre**

<table>
<thead>
<tr>
<th>Cost</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1.77</td>
</tr>
</tbody>
</table>
## Wheat, Spring on Owned Land

<table>
<thead>
<tr>
<th></th>
<th>Avg. Of All Farms</th>
<th>Low 20%</th>
<th>40 - 60%</th>
<th>High 20%</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Number of farms</strong></td>
<td>74</td>
<td>14</td>
<td>15</td>
<td>15</td>
</tr>
<tr>
<td><strong>Acres</strong></td>
<td>218.77</td>
<td>167.01</td>
<td>223.86</td>
<td>221.68</td>
</tr>
<tr>
<td>Yield per acre (bu.)</td>
<td>74.61</td>
<td>62.82</td>
<td>72.60</td>
<td>85.82</td>
</tr>
<tr>
<td>Operators share of yield %</td>
<td>100.00</td>
<td>100.00</td>
<td>100.00</td>
<td>100.00</td>
</tr>
<tr>
<td>Value per bu.</td>
<td>5.95</td>
<td>5.73</td>
<td>5.97</td>
<td>5.98</td>
</tr>
<tr>
<td>Total product return per acre</td>
<td>443.81</td>
<td>360.12</td>
<td>433.08</td>
<td>513.47</td>
</tr>
<tr>
<td>Hedging gains/losses per acre</td>
<td>-0.12</td>
<td>-0.60</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Crop insurance per acre</td>
<td>6.86</td>
<td>2.45</td>
<td>6.15</td>
<td>0.27</td>
</tr>
<tr>
<td>Other crop income per acre</td>
<td>2.44</td>
<td>0.67</td>
<td>3.24</td>
<td>3.38</td>
</tr>
<tr>
<td>Gross return per acre</td>
<td>452.98</td>
<td>363.24</td>
<td>441.86</td>
<td>517.12</td>
</tr>
</tbody>
</table>

### Direct Expenses

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Seed and plants</strong></td>
<td>20.83</td>
<td>19.61</td>
<td>19.69</td>
<td>18.96</td>
</tr>
<tr>
<td><strong>Fertilizer</strong></td>
<td>73.94</td>
<td>70.54</td>
<td>75.02</td>
<td>71.40</td>
</tr>
<tr>
<td><strong>Crop chemicals</strong></td>
<td>28.14</td>
<td>29.38</td>
<td>26.28</td>
<td>29.32</td>
</tr>
<tr>
<td><strong>Crop insurance</strong></td>
<td>13.93</td>
<td>13.85</td>
<td>13.87</td>
<td>12.64</td>
</tr>
<tr>
<td><strong>Fuel &amp; oil</strong></td>
<td>15.26</td>
<td>14.95</td>
<td>14.66</td>
<td>14.63</td>
</tr>
<tr>
<td><strong>Repairs</strong></td>
<td>30.59</td>
<td>27.95</td>
<td>23.64</td>
<td>25.52</td>
</tr>
<tr>
<td><strong>Custom hire</strong></td>
<td>5.88</td>
<td>3.47</td>
<td>6.00</td>
<td>9.60</td>
</tr>
<tr>
<td><strong>Hired labor</strong></td>
<td>2.60</td>
<td>10.60</td>
<td>4.44</td>
<td>0.73</td>
</tr>
<tr>
<td><strong>Operating interest</strong></td>
<td>4.41</td>
<td>3.81</td>
<td>5.83</td>
<td>3.21</td>
</tr>
<tr>
<td><strong>Miscellaneous</strong></td>
<td>3.81</td>
<td>4.61</td>
<td>4.67</td>
<td>1.90</td>
</tr>
<tr>
<td>Total direct expenses per acre</td>
<td>199.39</td>
<td>198.67</td>
<td>194.02</td>
<td>187.91</td>
</tr>
</tbody>
</table>

Return over direct exp per acre 253.59 164.56 247.84 329.21

### Overhead Expenses

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Hired labor</td>
<td>12.89</td>
<td>5.92</td>
<td>16.17</td>
<td>12.11</td>
</tr>
<tr>
<td>Machinery leases</td>
<td>3.09</td>
<td>2.16</td>
<td>1.47</td>
<td>5.85</td>
</tr>
<tr>
<td>Building leases</td>
<td>1.21</td>
<td>0.94</td>
<td>1.95</td>
<td>0.77</td>
</tr>
<tr>
<td>RE &amp; pers. property taxes</td>
<td>21.17</td>
<td>17.64</td>
<td>21.40</td>
<td>25.24</td>
</tr>
<tr>
<td>Farm insurance</td>
<td>8.59</td>
<td>6.42</td>
<td>9.19</td>
<td>5.87</td>
</tr>
<tr>
<td>Utilities</td>
<td>4.30</td>
<td>3.58</td>
<td>3.53</td>
<td>3.79</td>
</tr>
<tr>
<td>Dues &amp; professional fees</td>
<td>3.86</td>
<td>2.79</td>
<td>3.12</td>
<td>3.31</td>
</tr>
<tr>
<td>Interest</td>
<td>38.96</td>
<td>35.40</td>
<td>47.68</td>
<td>40.20</td>
</tr>
<tr>
<td>Mach &amp; bldg depreciation</td>
<td>32.26</td>
<td>29.42</td>
<td>26.85</td>
<td>31.10</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>4.00</td>
<td>4.07</td>
<td>2.73</td>
<td>4.95</td>
</tr>
<tr>
<td>Total overhead expenses per acre</td>
<td>130.32</td>
<td>107.74</td>
<td>134.10</td>
<td>135.18</td>
</tr>
</tbody>
</table>

Total dir & ovhd expenses per acre | 329.71 | 306.41 | 328.12 | 321.09 |

Net return per acre | 123.27 | 56.83 | 113.74 | 196.03 |

Government payments | 18.29 | 11.22 | 17.76 | 31.07 |

Net return with Govt payments | 141.56 | 68.05 | 131.50 | 227.10 |

Labor & management charge | 27.58 | 26.95 | 29.83 | 24.79 |

Net return over lbr & mgt | 113.97 | 41.10 | 101.67 | 202.31 |

### Cost of Production

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total direct expense per bu.</td>
<td>2.67</td>
<td>3.16</td>
<td>2.67</td>
<td>2.19</td>
</tr>
<tr>
<td>Total dir &amp; ovhd exp per bu.</td>
<td>4.42</td>
<td>4.88</td>
<td>4.52</td>
<td>3.74</td>
</tr>
<tr>
<td>Less gov't &amp; other income</td>
<td>4.05</td>
<td>4.65</td>
<td>4.15</td>
<td>3.34</td>
</tr>
<tr>
<td>With labor &amp; management</td>
<td>4.42</td>
<td>5.08</td>
<td>4.56</td>
<td>3.63</td>
</tr>
<tr>
<td>Net value per unit</td>
<td>5.95</td>
<td>5.73</td>
<td>5.96</td>
<td>5.98</td>
</tr>
</tbody>
</table>

Machinery cost per acre | 86.21 | 77.17 | 74.14 | 85.66 |

Est. labor hours per acre | 1.57       | 1.54   | 1.59    | 1.42    |
## Wheat, Spring on Cash Rent

<table>
<thead>
<tr>
<th></th>
<th>Avg. Of</th>
<th>Low 20%</th>
<th>40 - 60%</th>
<th>High 20%</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>All Farms</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of farms</td>
<td>113</td>
<td>22</td>
<td>22</td>
<td>23</td>
</tr>
<tr>
<td>Acres</td>
<td>440.04</td>
<td>340.68</td>
<td>507.82</td>
<td>495.38</td>
</tr>
<tr>
<td>Yield per acre (bu.)</td>
<td>74.33</td>
<td>66.64</td>
<td>75.67</td>
<td>81.51</td>
</tr>
<tr>
<td>Operators share of yield %</td>
<td>100.00</td>
<td>100.00</td>
<td>100.00</td>
<td>100.00</td>
</tr>
<tr>
<td>Value per bu.</td>
<td>5.96</td>
<td>5.82</td>
<td>5.88</td>
<td>6.09</td>
</tr>
<tr>
<td>Total product return per acre</td>
<td>443.28</td>
<td>387.70</td>
<td>444.93</td>
<td>496.43</td>
</tr>
<tr>
<td>Hedging gains/losses per acre</td>
<td>1.47</td>
<td>-</td>
<td>6.98</td>
<td>6.98</td>
</tr>
<tr>
<td>Crop insurance per acre</td>
<td>2.51</td>
<td>1.77</td>
<td>-</td>
<td>2.84</td>
</tr>
<tr>
<td>Other crop income per acre</td>
<td>2.18</td>
<td>3.66</td>
<td>3.71</td>
<td>0.34</td>
</tr>
<tr>
<td>Gross return per acre</td>
<td>449.45</td>
<td>391.37</td>
<td>456.40</td>
<td>499.61</td>
</tr>
</tbody>
</table>

### Direct Expenses

<table>
<thead>
<tr>
<th>Description</th>
<th>Avg. Of</th>
<th>Low 20%</th>
<th>40 - 60%</th>
<th>High 20%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seed and plants</td>
<td>19.50</td>
<td>19.89</td>
<td>21.64</td>
<td>17.19</td>
</tr>
<tr>
<td>Fertilizer</td>
<td>74.94</td>
<td>71.98</td>
<td>76.80</td>
<td>70.79</td>
</tr>
<tr>
<td>Crop chemicals</td>
<td>30.24</td>
<td>29.48</td>
<td>31.96</td>
<td>30.17</td>
</tr>
<tr>
<td>Crop insurance</td>
<td>13.83</td>
<td>12.88</td>
<td>15.04</td>
<td>13.56</td>
</tr>
<tr>
<td>Fuel &amp; oil</td>
<td>13.50</td>
<td>12.96</td>
<td>12.62</td>
<td>15.31</td>
</tr>
<tr>
<td>Repairs</td>
<td>23.92</td>
<td>26.04</td>
<td>21.71</td>
<td>24.84</td>
</tr>
<tr>
<td>Custom hire</td>
<td>7.00</td>
<td>15.75</td>
<td>6.43</td>
<td>8.80</td>
</tr>
<tr>
<td>Hired labor</td>
<td>4.59</td>
<td>5.96</td>
<td>5.68</td>
<td>4.85</td>
</tr>
<tr>
<td>Land rent</td>
<td>119.38</td>
<td>139.92</td>
<td>124.57</td>
<td>89.02</td>
</tr>
<tr>
<td>Operating interest</td>
<td>4.77</td>
<td>5.95</td>
<td>3.63</td>
<td>4.83</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>4.95</td>
<td>8.67</td>
<td>4.42</td>
<td>3.02</td>
</tr>
<tr>
<td>Total direct expenses per acre</td>
<td>316.61</td>
<td>349.49</td>
<td>324.48</td>
<td>282.13</td>
</tr>
<tr>
<td>Return over direct exp per acre</td>
<td>132.84</td>
<td>41.88</td>
<td>131.92</td>
<td>217.47</td>
</tr>
</tbody>
</table>

### Overhead Expenses

<table>
<thead>
<tr>
<th>Description</th>
<th>Avg. Of</th>
<th>Low 20%</th>
<th>40 - 60%</th>
<th>High 20%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hired labor</td>
<td>12.53</td>
<td>13.75</td>
<td>14.15</td>
<td>10.12</td>
</tr>
<tr>
<td>Machinery leases</td>
<td>2.72</td>
<td>5.55</td>
<td>2.71</td>
<td>2.57</td>
</tr>
<tr>
<td>Building leases</td>
<td>1.51</td>
<td>1.39</td>
<td>1.59</td>
<td>0.89</td>
</tr>
<tr>
<td>Farm insurance</td>
<td>6.23</td>
<td>5.22</td>
<td>5.66</td>
<td>6.35</td>
</tr>
<tr>
<td>Utilities</td>
<td>3.31</td>
<td>3.14</td>
<td>2.99</td>
<td>3.94</td>
</tr>
<tr>
<td>Dues &amp; professional fees</td>
<td>3.63</td>
<td>3.35</td>
<td>2.91</td>
<td>3.35</td>
</tr>
<tr>
<td>Interest</td>
<td>2.31</td>
<td>2.05</td>
<td>2.08</td>
<td>2.57</td>
</tr>
<tr>
<td>Mach &amp; bldg depreciation</td>
<td>26.71</td>
<td>24.49</td>
<td>24.43</td>
<td>31.56</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>2.89</td>
<td>2.18</td>
<td>2.74</td>
<td>2.70</td>
</tr>
<tr>
<td>Total overhead expenses per acre</td>
<td>62.01</td>
<td>61.88</td>
<td>58.70</td>
<td>64.05</td>
</tr>
<tr>
<td>Total dir &amp; ovhd expenses per acre</td>
<td>378.62</td>
<td>411.37</td>
<td>383.18</td>
<td>346.18</td>
</tr>
<tr>
<td>Net return per acre</td>
<td>70.83</td>
<td>-20.01</td>
<td>73.21</td>
<td>153.43</td>
</tr>
</tbody>
</table>

### Government payments

<table>
<thead>
<tr>
<th>Description</th>
<th>Avg. Of</th>
<th>Low 20%</th>
<th>40 - 60%</th>
<th>High 20%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Government payments</td>
<td>13.10</td>
<td>9.20</td>
<td>13.28</td>
<td>20.09</td>
</tr>
<tr>
<td>Net return with govt pmts</td>
<td>83.92</td>
<td>-10.80</td>
<td>86.50</td>
<td>173.52</td>
</tr>
<tr>
<td>Labor &amp; management charge</td>
<td>26.51</td>
<td>22.62</td>
<td>25.53</td>
<td>28.67</td>
</tr>
<tr>
<td>Net return over lbr &amp; mgt</td>
<td>57.41</td>
<td>-33.42</td>
<td>60.97</td>
<td>144.84</td>
</tr>
</tbody>
</table>

### Cost of Production

<table>
<thead>
<tr>
<th>Description</th>
<th>Avg. Of</th>
<th>Low 20%</th>
<th>40 - 60%</th>
<th>High 20%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total direct expense per bu.</td>
<td>4.26</td>
<td>5.24</td>
<td>4.29</td>
<td>3.46</td>
</tr>
<tr>
<td>Total dir &amp; ovhd exp per bu.</td>
<td>5.09</td>
<td>6.17</td>
<td>5.06</td>
<td>4.25</td>
</tr>
<tr>
<td>Less govt &amp; other income</td>
<td>4.83</td>
<td>5.98</td>
<td>4.74</td>
<td>3.96</td>
</tr>
<tr>
<td>With labor &amp; management</td>
<td>5.19</td>
<td>6.32</td>
<td>5.07</td>
<td>4.31</td>
</tr>
<tr>
<td>Net value per unit</td>
<td>5.98</td>
<td>5.82</td>
<td>5.97</td>
<td>6.09</td>
</tr>
<tr>
<td>Machinery cost per acre</td>
<td>74.72</td>
<td>85.02</td>
<td>68.79</td>
<td>82.63</td>
</tr>
<tr>
<td>Est. labor hours per acre</td>
<td>1.51</td>
<td>1.48</td>
<td>1.52</td>
<td>1.52</td>
</tr>
</tbody>
</table>
## MyFarm Financial Scorecard

<table>
<thead>
<tr>
<th>Year: __________________________</th>
<th>Name: __________________________</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Liquidity</strong></td>
<td><strong>5-Year Ave</strong></td>
</tr>
<tr>
<td></td>
<td>Strong</td>
</tr>
<tr>
<td>Current ratio</td>
<td>1.7</td>
</tr>
<tr>
<td>Working capital</td>
<td></td>
</tr>
<tr>
<td>Working cap to gross revenue</td>
<td>25%</td>
</tr>
<tr>
<td><strong>Solvency (market)</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Note: These solvency ratios include deferred liabilities</td>
</tr>
<tr>
<td>Farm debt/asset ratio</td>
<td>30%</td>
</tr>
<tr>
<td>Farm equity/asset ratio</td>
<td>70%</td>
</tr>
<tr>
<td>Farm debt/equity ratio</td>
<td>0.43</td>
</tr>
<tr>
<td><strong>Profitability (Cost)</strong></td>
<td></td>
</tr>
<tr>
<td>Rate of return on farm assets</td>
<td>8%</td>
</tr>
<tr>
<td>Rate of return on farm equity</td>
<td>10%</td>
</tr>
<tr>
<td>Operating profit margin</td>
<td>25%</td>
</tr>
<tr>
<td>Net farm income</td>
<td></td>
</tr>
<tr>
<td>EBITDA</td>
<td></td>
</tr>
<tr>
<td><strong>Repayment Capacity (Accrual)</strong></td>
<td></td>
</tr>
<tr>
<td>Capital debt repay capacity</td>
<td></td>
</tr>
<tr>
<td>Capital debt repay margin</td>
<td></td>
</tr>
<tr>
<td>Replacement margin</td>
<td>1.50</td>
</tr>
<tr>
<td>Term-debt coverage ratio</td>
<td>1.40</td>
</tr>
<tr>
<td>Replacement margin ratio</td>
<td></td>
</tr>
<tr>
<td><strong>Financial Efficiency</strong></td>
<td></td>
</tr>
<tr>
<td>Asset-turnover rate (market)</td>
<td>45%</td>
</tr>
<tr>
<td>Operating-expense ratio</td>
<td>60%</td>
</tr>
<tr>
<td>Depreciation-expense ratio</td>
<td>5%</td>
</tr>
<tr>
<td>Interest-expense ratio</td>
<td>5%</td>
</tr>
<tr>
<td>Net farm income ratio</td>
<td>20%</td>
</tr>
</tbody>
</table>

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