2020 - 2021
ORGANIC FARM PERFORMANCE
IN THE UPPER MIDWEST
Whole Farm & Enterprise Reports

University of Minnesota
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ACKNOWLEDGEMENTS

We begin with a hearty “thank you” to all the participating certified organic and organic transitioning farmers who shared their financial and production information for the Organic Farm Financial Benchmarking in the Upper Midwest project. Participating farms received a cost-share reduction in the tuition rate for enrolling in the farm business management program. Information regarding the cost-share opportunity has been included in numerous industry newsletters in addition to a website, www.agcentric.org, developed to promote the project and results.

Partner organizations on the project include farm business management educational programs of the Minnesota State Colleges and Universities’ Agriculture Centers of Excellence, the Wisconsin Technical College System, and North Dakota (ND) Farm Management. In 2020-2021, only data from Wisconsin’s and Minnesota’s participating organic producers were included in this publicly available annual report due to limited participation numbers in ND. At least ten aggregated farms per column were required for a data table to be included in this report; all columns with less than ten were omitted. This helps protect the privacy of participants and ensures that individual farm data remain confidential. Again, thank you to the participating colleges, instructors, and farmers.

Funding for the tuition cost-share, data collection and analysis was provided by the United States Department of Agriculture’s Organic Agriculture Research and Extension Initiative (Grant # 2019-51300-3084) during 2019 - 2022.

Project Coordinators:

- Joleen Hadrich, PI, Professor, Department of Applied Economics, University of Minnesota, jhadrich@umn.edu
- Pauline Van Nurden, PI, Extension Economist, Center for Farm Financial Management, pvannurd@umn.edu

Report Authors:

- Gigi DiGiacomo, Research Fellow, Department of Applied Economics, University of Minnesota, gigid@umn.edu
- Pauline Van Nurden, PI, Extension Economist, Center for Farm Financial Management, pvannurd@umn.edu

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INTRODUCTION

This report was funded with a grant from the USDA OREI as part of a project called *Organic Farm Financial Benchmarking in the Upper Midwest* (Organic Benchmarking Project). The Organic Benchmarking Project is an integrated regional effort led by University of Minnesota Extension with the long-term goal of enhancing the economic viability of organic farms in Minnesota (MN), Wisconsin (WI) and North Dakota (ND) through comprehensive financial benchmark analysis.

Benchmarking provides a summary of production and financial performance measures, allowing producers to evaluate their individual performance, compare it to a cohort with similar farm characteristics, and remain competitive. Conventional farming operators have numerous resources to complete benchmark analysis, while few are available for organic producers. Thus, this project helps generate the data and the tools needed by organic farms to better analyze and benchmark their business performance.

Specifically, the Organic Benchmarking Project aims to:

- collect data about farm production and financial performance measures for certified organic row crop, forage, dairy, and specialty crop farms to investigate the financial performance of certified and transitioning organic farms in the Upper Midwest;
- develop benchmark reports for certified organic row crops (corn, soybeans, and wheat), forage (hay and corn silage), dairy and specialty crop (fruits and vegetables) farms; and
- develop and deliver Extension programming to address the educational needs of organic producers and the agricultural professionals who advise them.

Organic farm financial data are collected as part of farm business management (FBM) instruction across the Upper Midwest. Tuition cost-share funding has been offered to certified organic and transitioning farmers in Minnesota and Wisconsin who enrolled in the FBM education program in 2018-2022. Data from farms participating in FBM have been aggregated and imported into FINBIN, a database maintained by the University of Minnesota’s Center for Farm Financial Management (CFFM) ([finbin.umn.edu](http://finbin.umn.edu)). The tables in this report were created using the public facing [FINBIN.umn.edu](http://finbin.umn.edu) website in August 2022 and include MN-WI data. There are not enough organic records from ND to incorporate at this time.

If you are interested in learning more about the FBM program and organic cost-share for 2022-2023 visit [https://www.agcentric.org/farm-business-management/organic-farming-resources/](https://www.agcentric.org/farm-business-management/organic-farming-resources/).

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ORGANIC TERMS & DEFINITIONS

The USDA National Organic Program (NOP) regulates all organic crops, livestock and products – determining certification standards, compliance with those standards, enforcement of standards and labelling. Farmers, processors and retailers must follow USDA organic regulations in order to sell, label or represent their products as organic.

Organic, as defined by the USDA, is “a labeling term that indicates that the food or other agricultural product has been produced through approved methods. These methods integrate cultural, biological, and mechanical practices that foster cycling of resources, promote ecological balance and conserve biodiversity. Synthetic fertilizers, sewage sludge, irradiation and genetic engineering may not be used.” The complete list of NOP standards can be found at ams.usda.gov/rules-regulations/organic.

When becoming certified organic, farmers must transition their land by eliminating any prohibited substances as defined by NOP. For crop land, the transition period is three years; crops cannot be certified or sold as organic until the transition has been completed. Some acreage, such as fallow (e.g., CRP land) or pasture land, may be certified more quickly if the farmer can show that it has been at least three years since prohibited substances have been applied.

Organic records in the FINBIN database can be sorted according to certification status (certified v. transitioning) and by the amount of acreage certified (total organic v. partial organic). In this report, the following terms are used to describe farms that manage organically.

**Total Organic:** 100% of land, livestock and products are certified organic.

**Partial Organic:** A portion of land, livestock and products are certified organic while the remainder is non-certified and may be farmed conventionally, in transition to organic, or some combination of both.

**Transitioning:** Some or all land, livestock and products are in transition to organic certification.

Financial analyses in this report make use of the Farm Finance Scorecard – a tool developed by the University of Vermont Extension and CFFM. The scorecard uses a red-yellow-green rating system to rank financial performance. Farm Finance Scorecard terms are highlighted in maroon throughout the report and can be found at the end of this report.
REPORT HIGHLIGHTS

The 2020-2021 report highlights represent a snapshot of organic farm financial performance. As this Organic Benchmarking Project continues, longitudinal data will become available, allowing for a richer year-over-year comparison of profitability, solvency, and liquidity among organic farms and between organic and conventionally-managed farms.

In 2020-2021 there were 135 total organic, 55 partial organic and 17 transitioning to organic farms in the FINBIN database for MN-WI combined. Together, these FINBIN farms represented approximately nine percent of all certified organic and transitioning farms in Minnesota and Wisconsin\(^b\). Using the USDA ERS farm size metric\(^c\) measurement, the majority of organic farms in FINBIN are considered small (52%) followed by mid-size (40%) and large (8%).

Unsurprisingly, small organic farms with <100 acres had the lowest median net farm income, $39,361, suggesting that most of these farms may be operating part-time and/or require supplemental off-farm income to cover family living expenses. However, these small producers were financially efficient, posting some of the strongest farm financial benchmarks among their organic cohorts.

Midsize farms with 501-1,000 acres posted the strongest median net farm income, $159,882 on average among all farm types, and did so while making efficient use of labor. The proportion of unpaid labor hours was substantially lower on farms that managed 501-1,000 acres compared to other organic farms. Mid-sized farms scored strong for profitability indicators but were more at risk when it came to liquidity and vulnerable in terms of solvency suggesting they were highly leveraged.

Large organic farms averaged $150,215 in median farm income for 2020-2021 and the largest return to unpaid labor: $130.31/hour. In terms of liquidity, these same farms maintained the largest share of working capital, $430,006; more than sufficient to manage risk and optimize opportunities for future growth.

Total organic farms were the most profitable, generating $131,839 net farm income on average compared to $116,181 for partial organic farms and $109,880 for transitioning farms during 2020-2021. The median net farm income, however, was almost half of net farm income for farms of any certification status (certified and transitioning), suggesting a large amount of variation across farms with the more profitable operations having skewed the average upwards.

\(^b\) Minnesota and Wisconsin reported 2,368 organic and transitioning acres in the USDA 2019 Organic Survey.

\(^c\) Small family farms are classified as those with less than $350,000 in gross cash farm income. Midsize family farms are those with gross cash farm income of $350,000 to $999,999.

Strong profitability led to **healthy liquidity gains** on certified organic farms allowing them to replenish working capital and boost net worth. Total organic and partial organic farms in MN-WI reported working capital-to-gross income ratios of more than 30% placing them in the strong (green) category. Transitioning farms ranked moderate (yellow) with a working capital-to-gross income ratio of less than 30%. This is not surprising given the investments and higher input expenses required to transition without the benefit of organic commodity sales premiums. The average MN-WI organic farm had a cost basis **net worth of $850,958**. All farm types ranked moderate (yellow) on a cost and market basis with farm debt-to-asset ratios ranging from 33% (beef & crop) to 51% (dairy).

Turning to individual organic enterprises, most crops saw improved production and finances in 2021 compared to the previous year; they were profitable across the board regardless of size. **Crops represent the largest organic farm type** in the FINBIN database (65 out of 189 or 34%) followed by dairies (57 out of 189 or 30%). Despite early drought conditions in 2021, net income was positive for organic crops. MN-WI’s top organic crops, corn and soybeans, saw moderate price increases. Organic corn and soybeans sold for **$9.51/bu and $29.62/bu**, respectively, on average in 2021; corn was up 28% and soybeans 46% compared to 2020 organic prices.

Other notable highlights for organic and transitioning farms in 2020-2021:

- **Older, more experienced farmers** are paving the way in organic production. Total and partial organic farmers averaged 44.9 years and 43.3 years respectively, compared to their transitioning counterparts who were 40.7 years on average. The older farmers also had more production experience (18.1 years farming for total organic and 19.2 years for partial organic) compared to those who were transitioning to organic (9.2 years farming).

- Organic and transitioning farmers cash rent the majority of their cropland.

- Total organic operators reported using the most labor (hired and unpaid) averaging 4,252 hours/farm. **Hired labor accounted for half (50.7%) of total labor** on fully organic farms where operators paid $17.88/hour on average or $38,620.80 annually for hired labor.

- **Organic certification expenses increased** substantially for crop (12%) and dairy farms (36%) from 2020 to 2021. Overall, however, certification fees remained less than or equal to one percent of total direct expenses for organic farms.

- The average **term-debt coverage** for all MN-WI organic farms was 2.58. Crop farms, with a term-debt coverage ratio of 4.31 pulled the average up, nonetheless, all organic farm types scored well above the 1.75 benchmark metric signifying **strong repayment capacity**.

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\[^d\] Organic corn sold for $7.42/bu on average in 2020; soybeans sold for $20.29/bu.
MINNESOTA REGIONS

The map below (Fig. 1) shows median farm income for total organic, partial organic and transitioning farms for MN farm business management regions. There were not enough farms reporting to break out regional performance in the Northeast/East Central MN for 2020, Southwest MN or WI. A minimum of 10 farms is needed to generate regional reports.

Fig. 1 source: Map figure reproduced from FINBIN 2020 Report on Minnesota Farm Finances.
WHOLE FARM FINANCIAL SUMMARY

The 2020-2021 organic analysis begins with a whole farm summary report. This provides a high-level overview of financial and production characteristics of the 206 total organic, partial organic and transitioning organic farms from MN-WI combined.

The year 2020 was one that started with cautious optimism as many commodity prices were slowing rising, following several years of reduced profits across most agricultural commodities, particularly dairy. But by March, the COVID-19 pandemic brought significant uncertainty to agricultural markets; for example, most dairy producers saw milk prices in April and May of 2020 plummet and crop farmers experienced depressed pricing as well. Tides turned in the second half of the year, and 2020 turned into an unexpectedly profitable year for organic (and non-organic) producers, as gross farm income benefited from generally good yields, increasing commodity prices, and noteworthy government payments related to the pandemic.

In 2021, despite early drought conditions, farmers saw some continuation of improved yields with late summer moisture and a spike in commodity prices thanks to a slow-down in competing organic imports. Government support decreased substantially from the 2020 highs and input prices increased overall. Improved yields and commodity prices more than balanced out the loss in government income and upward shift in production costs leading to a 14.5% increase in net farm income above the previous year.

In the next section, whole farm financial data are broken down by certification status followed by farm type and farm size. Data sources for this section are shown below.

FINBIN data sources for organic whole farm financial summary by certification status 2020-2021 (# farms)

<table>
<thead>
<tr>
<th>Source</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>MN State College &amp; University South</td>
<td>122</td>
</tr>
<tr>
<td>MN State College &amp; University North</td>
<td>50</td>
</tr>
<tr>
<td>Wisconsin Technical College System</td>
<td>29</td>
</tr>
<tr>
<td>MN State College &amp; University Red River Valley</td>
<td>3</td>
</tr>
<tr>
<td>Other contributors</td>
<td>2</td>
</tr>
</tbody>
</table>

Location: Minnesota, Wisconsin
Year(s): 2021, 2020
Special sorts included: Organic farm (total), Organic farm (partial), Organic transition
CERTIFICATION STATUS

This section of the report describes operator information, farm acreage, income, profitability, liquidity, solvency and farm labor by certification status; total organic, partial organic and transitioning to organic. Data sources for this section of the report come from three FINBIN sorts – one for each certification type as described below. Note the data sources for transitioning farms cannot be disclosed because of low record numbers.

<table>
<thead>
<tr>
<th><strong>FINBIN data sources for organic whole farm financial summary by certification status</strong></th>
<th><strong>2020-2021</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total Organic</strong></td>
<td></td>
</tr>
<tr>
<td>MN State College &amp; University South (72)</td>
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</tr>
<tr>
<td>MN State College &amp; University North (36)</td>
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<td>MN State College &amp; University Red River Valley (2)</td>
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</tr>
<tr>
<td>Wisconsin Technical College System (24)</td>
<td></td>
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<tr>
<td>Years: 2020, 2021</td>
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<tr>
<td>Special sorts included: Organic farm (total)</td>
<td></td>
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<tr>
<td>Special sorts excluded: Organic farm (partial), Organic transition</td>
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</tr>
<tr>
<td><strong>Partial Organic</strong></td>
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<td>MN State College &amp; University South (40)</td>
<td></td>
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<tr>
<td>MN State College &amp; University North (8)</td>
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</tr>
<tr>
<td>Wisconsin Technical College System (5)</td>
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<tr>
<td>Other Contributors (2)</td>
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<tr>
<td>Years: 2020, 2021</td>
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<tr>
<td>Special sorts included: Organic farm (partial)</td>
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<tr>
<td>Special sorts excluded: Organic farm (total), Organic transition</td>
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<tr>
<td><strong>Transitioning</strong></td>
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<tr>
<td>MN State College &amp; University South (ND)</td>
<td></td>
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<tr>
<td>MN State College &amp; University North (ND)</td>
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<td>Wisconsin Technical College System (ND)</td>
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<td>Years: 2020, 2021</td>
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<tr>
<td>Special sorts included: Organic transition</td>
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<tr>
<td>Special sorts excluded: Organic Farm (total), Organic farm (partial)</td>
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</tbody>
</table>
OVERALL STATUS & FARM TYPE. Minnesota and Wisconsin reported farm financial data for 134 total organic, 55 partial organic, and 17 transitioning farms during 2020-2021. Fig.2 shows how farm type varied by certification status. A farm is classified by “type” when 70% or more of its net farm income is derived from dairy, field crops, beef & crop, hogs, poultry, specialty crops, or other.

During 2020-2021, total organic farms were almost equally split between dairy and crop farm types (39% and 32%, respectively). The remainder of total organic farms were classified as “other” – meaning that there were not 10 or more farms of any individual type to be labeled as such. Partial organic farms were, for the most part, managing field crops. Forty percent of partial organic farms are classified as crop farms, 25% as beef & crop, and the remaining farms as “other.”

Less than 10 farms of any one farm type was counted for transitioning farms, therefore we are unable to report on the farm type status for this group.

OPERATOR AGE & EXPERIENCE. Operator age and experience was similar on total and partial organic farms in FINBIN but differed for transitioning producers. The average age of FINBIN’s total organic farmers in MN-WI for 2020-2021 was 44.9 years compared to an average age of 43.3 for partial organic farmers and 40.7 for transitioning farmers. Generally, the older total and partially organic farmers had more experience (18.1 years farming for total organic and 19.2 years for partial organic) compared to their counterparts who were in the process of transitioning to organic (9.2 years farming).
FARM LABOR. Turning to labor on MN-WI farms, we explore the ratio of paid to unpaid labor by certification status (Fig. 3). Fully organic operators reported using the most labor (paid and unpaid) averaging 4,252 hours per farm during 2020-2021. Hired labor accounted for half (50.7%) of total labor on fully organic farms where operators paid $17.88/hour on average or $38,620.80 annually. Net returns for unpaid labor on these same farms averaged $62.43/hour during 2020-2021.

Partial organic farm operators tracked the lowest number of labor hours averaging 2,284 hours annually for both paid and unpaid labor combined over the 2-year period reported. Partial organic farm managers relied primarily on unpaid labor (86.9%) versus paid labor (13.1%). Of the three farm groups, net returns for unpaid labor ($52.61/hour) was the lowest on partial organic farms. These same farms paid $17.26/hour on average for hired labor ($5,178 annually) during 2020-2021.

Transitioning organic farm managers fell somewhere in the middle of their fully organic and partial organic counterparts. The transitioning farmers reported using 2,917 hours of labor annually on average during 2020-2021, 32.2% of which was hired and 67.8% unpaid. Transitioning farms paid the lowest wage for hired labor ($14.33/hour), spending $13,455.87 each year on average for hired labor. Net returns for unpaid labor on transitioning farms averaged $55.53/hour.

Differences in total labor requirements (paid and unpaid) are likely explained by the predominant farm type for each certification group. As discussed previously, total organic farmers tended to be dairies, which require more labor on a daily basis than the partial organic crop farms.

![Fig. 3. Paid v. Unpaid Labor Hours for Organic and Transitioning Farms in MN-WI, 2020-2021](image)
FARMLAND OWNERSHIP & TENURE. Farmland ownership and overall land tenure is particularly important in organic agriculture because it affects decisions related to transition and certification, in addition to overall access, conservation, and succession planning. Total and partial organic farms in MN-WI managed similar size farms on average; 279 acres and 293 acres, respectively. Transitioning farms were less than half the size of their organic counterparts; they managed 125 crop and pasture acres on average in 2020-2021.

The majority of organic cropland was not owner operated for farms in FINBIN; just 36% of cropland managed on total organic farms was owned in 2020-2021; 21% of managed cropland was owned by partial organic farmers and 16% by transitioning farmers (Fig. 4). The ownership rates of cropland for organic farmers are slightly lower than the overall ownership rate of cropland nationwide which averaged 46% according to the most recent data available from USDA National Agricultural Statistics Service.5

The majority of cropland managed by organic and transitioning farmers was cash rented. While cash rental is very common among farmers who manage conventionally, organic farmers take bigger risks when relying on cash rental due to the longer-term investments typically required for transition.

Fig. 4. Crop Acres for Organic and Transitioning Farms in MN-WI, 2020-2021

5 “2014 Tenure, Ownership and Transition of Agricultural Land (TOTAL) Survey." USDA, NASS.
PROFITABILITY. Farm income and profitability represent the difference between the value of goods produced and the cost of the resources used in their production (Farm Finance Scorecard 2014). FINBIN includes several measures of profitability including average net farm income, median net farm income, rate of return on assets, rate of return on equity, operating profit margin and asset turnover rate. We discuss all of these here and, as a reminder, definitions for financial terms colored maroon can be found at the back of this publication.

Average net farm income for total organic farms in MN-WI measured $132,319 in 2020-2021 compared to $105,687 for partial organic farms and $109,880 for transitioning farms (Fig. 5). These averages, however, were skewed substantially by top performers and do not accurately reflect typical net farm income for the groups. A better measure, when there is a large amount of variation among farms, is the median net farm income. Median net farm income for total organic farms was $76,404 (40% below average net farm income). Similar trends were observed for partial organic farms where median net farm income measured $67,746 (36% below average net farm income) and $54,025 for transitioning farms (51% below average net farm income).

Turning to the cost-basis profitability indicators, all three groups are ranked strong (green) for rate of return on assets, rate of return on equity and operating profit margin. These indicators suggest that farm profits generated a healthy return on investments in the farm businesses.
LIQUIDITY & SOLVENCY. In 2020-2021, strong profitability led to healthy liquidity allowing farms to replenish working capital. Working capital is an important liquidity measure of income and assets available in the short term to purchase inputs and to pay hired labor, interest and taxes.

For farms in FINBIN, total organic and partial organic farms in MN-WI reported working capital that ranged from $95,281 for transitioning farms to $175,640 for total organic farms. To put this in perspective, we look at working capital-to-gross income ratio. Working capital-to-gross income ratio measures the share of a farm’s available operating capital in relation to the size of the overall business. Both total organic and partial organic farms had working capital-to-gross income ratios of more than 30% placing them in the strong (green) category. Only transitioning farms ranked moderate (yellow) with a working capital-to-gross income ratio of less than 30% (26.3%). This is not surprising as significant investments are required during transition without the benefit of organic price premiums, which can put a squeeze on short-term cash flow and available working capital.

The current ratio is another indicator of liquidity and measures the extent to which current farm assets, if sold tomorrow, would be able to pay off current liabilities. In 2020-2021, the average current ratio for MN-WI total organic, partial organic and transitioning farms measured between 2.18 – 2.58 (Fig. 6). A current ratio greater than 2.0 is considered strong (green), indicating that there are twice as many current assets as current liabilities.

Turning to solvency, farms in all three certification groups were ranked moderate (yellow) with farm debt-to-asset ratios of 40% to 46% (cost). The farm debt-to-asset ratio measures the bank’s share of the farm business; it compares total farm debt to total farm assets. A higher debt-to-asset ratio is an indicator of greater financial risk and lower borrowing capacity.
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<td>Transitioning</td>
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<tr>
<td><strong>Year</strong></td>
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<tr>
<td><strong>Number of farms</strong></td>
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<tr>
<td>Average number of operators</td>
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<tr>
<td>farming</td>
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<td>Total crop acres</td>
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<td>Crop acres cash rented</td>
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<tr>
<td>Crop acres share rented</td>
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<td>Total pasture acres</td>
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<td><strong>Labor Analysis</strong></td>
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<td>Total unpaid labor hours</td>
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<td>Total hired labor hours</td>
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<td>Total labor hours per farm</td>
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<td>Unpaid hours per operator</td>
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<tr>
<td>Value farm production/hr</td>
<td>104.36</td>
<td>161.85</td>
<td>93.16</td>
</tr>
<tr>
<td>Net farm income/unpaid hr</td>
<td>62.43</td>
<td>52.61</td>
<td>55.53</td>
</tr>
<tr>
<td>Average hourly hired labor</td>
<td>17.88</td>
<td>17.26</td>
<td>14.33</td>
</tr>
<tr>
<td>wage</td>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>
## Income & Profitability by Certification Status

<table>
<thead>
<tr>
<th>Organic status</th>
<th>Total organic</th>
<th>Partial organic</th>
<th>Transitioning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of farms</td>
<td>134</td>
<td>55</td>
<td>17</td>
</tr>
</tbody>
</table>

### Summary income statement

<table>
<thead>
<tr>
<th></th>
<th>MN-WI</th>
<th>MN-WI</th>
<th>MN-WI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gross cash farm income ($)</td>
<td>468,909</td>
<td>381,167</td>
<td>305,514</td>
</tr>
<tr>
<td>Total cash farm expense ($)</td>
<td>360,425</td>
<td>295,916</td>
<td>236,103</td>
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<tr>
<td>Net cash farm income ($)</td>
<td>108,484</td>
<td>85,251</td>
<td>69,411</td>
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<tr>
<td>Inventory change ($)</td>
<td>56,022</td>
<td>51,078</td>
<td>54,700</td>
</tr>
<tr>
<td>Depreciation ($)</td>
<td>-33,873</td>
<td>-21,267</td>
<td>-14,275</td>
</tr>
<tr>
<td>Net farm income fm. operations ($)</td>
<td>130,633</td>
<td>115,061</td>
<td>109,836</td>
</tr>
<tr>
<td>Gain or loss on capital sales ($)</td>
<td>1,205</td>
<td>1,120</td>
<td>44</td>
</tr>
<tr>
<td><strong>Net farm income ($)</strong></td>
<td>131,839</td>
<td>116,181</td>
<td>109,880</td>
</tr>
<tr>
<td>Median net farm income ($)</td>
<td>76,404</td>
<td>69,623</td>
<td>54,025</td>
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### Profitability (cost)

<table>
<thead>
<tr>
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<th>MN-WI</th>
<th>MN-WI</th>
<th>MN-WI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rate of return on assets</td>
<td>8.1</td>
<td>8.5</td>
<td>13.6</td>
</tr>
<tr>
<td>Rate of return on equity</td>
<td>11.6</td>
<td>12.7</td>
<td>20.3</td>
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<tr>
<td>Operating profit margin</td>
<td>24.3</td>
<td>25.5</td>
<td>31.8</td>
</tr>
<tr>
<td>Asset turnover rate</td>
<td>33.2</td>
<td>33.3</td>
<td>42.9</td>
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### Profitability (market)

<table>
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<tr>
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<th>MN-WI</th>
<th>MN-WI</th>
<th>MN-WI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rate of return on assets</td>
<td>6.8</td>
<td>6.5</td>
<td>10.4</td>
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<tr>
<td>Rate of return on equity</td>
<td>9.1</td>
<td>9.0</td>
<td>15.2</td>
</tr>
<tr>
<td>Operating profit margin</td>
<td>25.8</td>
<td>24.2</td>
<td>28.7</td>
</tr>
<tr>
<td>Asset turnover rate</td>
<td>26.2</td>
<td>26.8</td>
<td>36.3</td>
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### Nonfarm Information

<table>
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<tr>
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<th>MN-WI</th>
<th>MN-WI</th>
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</thead>
<tbody>
<tr>
<td>Net nonfarm income ($)</td>
<td>38,573</td>
<td>22,705</td>
<td>34,800</td>
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</table>
This farm income statement reports information from the previous page in greater detail.

<table>
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<tr>
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<th>MN-WI</th>
<th>MN-WI</th>
<th>MN-WI</th>
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<tbody>
<tr>
<td><strong>Organic status</strong></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td><strong>Year</strong></td>
<td>MN-WI</td>
<td>MN-WI</td>
<td>MN-WI</td>
</tr>
<tr>
<td><strong>Number of farms</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>134</td>
<td>55</td>
<td>17</td>
</tr>
<tr>
<td><strong>Crop sales</strong></td>
<td>120,005</td>
<td>207,933</td>
<td>68,216</td>
</tr>
<tr>
<td><strong>Crop inventory change</strong></td>
<td>44,270</td>
<td>48,680</td>
<td>42,102</td>
</tr>
<tr>
<td><strong>Gross crop income</strong></td>
<td>164,275</td>
<td>256,613</td>
<td>110,318</td>
</tr>
<tr>
<td><strong>Livestock sales</strong></td>
<td>236,798</td>
<td>93,302</td>
<td>127,451</td>
</tr>
<tr>
<td><strong>Livestock inventory change</strong></td>
<td>1,948</td>
<td>729</td>
<td>1,324</td>
</tr>
<tr>
<td><strong>Gross livestock income ($)</strong></td>
<td>238,746</td>
<td>94,031</td>
<td>128,774</td>
</tr>
<tr>
<td><strong>Government payments</strong></td>
<td>44,860</td>
<td>32,783</td>
<td>33,366</td>
</tr>
<tr>
<td><strong>Other cash farm income</strong></td>
<td>65,765</td>
<td>43,196</td>
<td>76,481</td>
</tr>
<tr>
<td><strong>Change in accounts receivable</strong></td>
<td>-623</td>
<td>-3,744</td>
<td>9,299</td>
</tr>
<tr>
<td><strong>Gain or loss on hedging accounts</strong></td>
<td>277</td>
<td>-14,984</td>
<td>-100</td>
</tr>
<tr>
<td><strong>Change in other assets</strong></td>
<td>5,441</td>
<td>4,742</td>
<td>2,694</td>
</tr>
<tr>
<td><strong>Gain or loss on breeding livestock</strong></td>
<td>-2,168</td>
<td>-384</td>
<td>1,093</td>
</tr>
<tr>
<td><strong>Gross farm income ($)</strong></td>
<td>516,573</td>
<td>412,253</td>
<td>361,926</td>
</tr>
<tr>
<td><strong>Cash operating expenses</strong></td>
<td>332,568</td>
<td>273,006</td>
<td>228,036</td>
</tr>
<tr>
<td><strong>Change in prepaid &amp; supplies</strong></td>
<td>-5,050</td>
<td>-178</td>
<td>-3,490</td>
</tr>
<tr>
<td><strong>Change in growing crops</strong></td>
<td>-1,385</td>
<td>-929</td>
<td>-523</td>
</tr>
<tr>
<td><strong>Change in accounts payable</strong></td>
<td>-244</td>
<td>-7,736</td>
<td>4,045</td>
</tr>
<tr>
<td><strong>Depreciation</strong></td>
<td>34,116</td>
<td>21,997</td>
<td>14,275</td>
</tr>
<tr>
<td><strong>Total operating expense</strong></td>
<td>360,025</td>
<td>286,160</td>
<td>242,342</td>
</tr>
<tr>
<td><strong>Total interest expense</strong></td>
<td>25,443</td>
<td>21,731</td>
<td>9,747</td>
</tr>
<tr>
<td><strong>Total expenses ($)</strong></td>
<td>385,468</td>
<td>307,891</td>
<td>252,090</td>
</tr>
<tr>
<td><strong>Net farm income from operations</strong></td>
<td>131,104</td>
<td>104,363</td>
<td>109,836</td>
</tr>
<tr>
<td><strong>Gain or loss on capital sales</strong></td>
<td>1,214</td>
<td>1,324</td>
<td>44</td>
</tr>
<tr>
<td><strong>Avg. Net farm income ($)</strong></td>
<td>132,319</td>
<td>105,687</td>
<td>109,880</td>
</tr>
</tbody>
</table>

1/ Farms represent “organic (total)” and “organic (partial).” Results for farms transitioning to organic are unavailable.
# Liquidity, Repayment Capacity & Solvency by Certification Status

<table>
<thead>
<tr>
<th>Organic status</th>
<th>MN-WI</th>
<th>MN-WI</th>
<th>MN-WI</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total organic</td>
<td>Partial organic</td>
<td>Transitioning</td>
</tr>
<tr>
<td><strong>Number of farms</strong></td>
<td>134</td>
<td>55</td>
<td>17</td>
</tr>
</tbody>
</table>

## Liquidity & Repayment

<table>
<thead>
<tr>
<th></th>
<th>Total organic</th>
<th>Partial organic</th>
<th>Transitioning</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Current assets ($)</strong></td>
<td>287,003</td>
<td>303,320</td>
<td>166,246</td>
</tr>
<tr>
<td><strong>Current liabilities ($)</strong></td>
<td>111,363</td>
<td>139,407</td>
<td>70,965</td>
</tr>
<tr>
<td><strong>Current ratio</strong></td>
<td>2.58</td>
<td>2.18</td>
<td>2.34</td>
</tr>
<tr>
<td><strong>Working capital ($)</strong></td>
<td>175,640</td>
<td>163,913</td>
<td>95,281</td>
</tr>
<tr>
<td><strong>Working capital to gross income (%)</strong></td>
<td>34</td>
<td>39.8</td>
<td>26.3</td>
</tr>
<tr>
<td><strong>Term debt coverage ratio</strong></td>
<td>2.54</td>
<td>2.73</td>
<td>5.16</td>
</tr>
<tr>
<td><strong>Replacement coverage ratio</strong></td>
<td>2.06</td>
<td>1.97</td>
<td>3.93</td>
</tr>
<tr>
<td><strong>Term debt to EBITDA</strong></td>
<td>2.51</td>
<td>2.78</td>
<td>1.19</td>
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</tbody>
</table>

## Solvency (cost)

<table>
<thead>
<tr>
<th></th>
<th>Total organic</th>
<th>Partial organic</th>
<th>Transitioning</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total assets ($)</strong></td>
<td>1,569,994</td>
<td>1,371,742</td>
<td>965,476</td>
</tr>
<tr>
<td><strong>Total liabilities ($)</strong></td>
<td>689,285</td>
<td>593,268</td>
<td>347,776</td>
</tr>
<tr>
<td><strong>Net worth ($)</strong></td>
<td>880,709</td>
<td>778,474</td>
<td>617,700</td>
</tr>
<tr>
<td><strong>Farm debt to asset ratio (%)</strong></td>
<td>46</td>
<td>46</td>
<td>40</td>
</tr>
<tr>
<td><strong>Total debt to asset ratio (%)</strong></td>
<td>44</td>
<td>43</td>
<td>36</td>
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</tbody>
</table>

## Solvency (market)

<table>
<thead>
<tr>
<th></th>
<th>Total organic</th>
<th>Partial organic</th>
<th>Transitioning</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total assets ($)</strong></td>
<td>1,981,657</td>
<td>1,733,279</td>
<td>1,115,493</td>
</tr>
<tr>
<td><strong>Total liabilities ($)</strong></td>
<td>788,432</td>
<td>694,979</td>
<td>399,528</td>
</tr>
<tr>
<td><strong>Net worth ($)</strong></td>
<td>1,193,225</td>
<td>1,038,299</td>
<td>715,965</td>
</tr>
<tr>
<td><strong>Farm debt to asset ratio (%)</strong></td>
<td>42</td>
<td>42</td>
<td>40</td>
</tr>
<tr>
<td><strong>Total debt to asset ratio (%)</strong></td>
<td>40</td>
<td>40</td>
<td>36</td>
</tr>
</tbody>
</table>

1/ A complete balance sheet at cost and market values are available online at [www.FINBIN.umn.edu](http://www.FINBIN.umn.edu).
2/ End of year
3/ EBITDA represents earnings before interest, taxes, depreciation and amortization.
FARM TYPE

This section of the report provides “highlights” for total organic and partial organic farms by “type”. There are ten possible farm types included in FINBIN (crop, dairy, hog, beef, sheep, crop & dairy, crop & hog, crop & beef, crop & sheep, other). A farm is classified by type when 70% or more of its sales revenue comes from a particular category. The FINBIN database includes records for four MN-WI organic farm types: crops (34%), dairy (30%), beef & crops (9%), and other (26%) (Fig. 7). Note that seven percent of farm types were not disclosed due to insufficient enterprise numbers and have been included in the “other” category. Crops include primarily corn, soybeans and forages. Farms classified as “other” include field peas, dry edible beans, other livestock, and specialty crops. Detailed financial information can be found in the tables that follow the summary section.

<table>
<thead>
<tr>
<th>Farm type</th>
<th>MN-WI</th>
<th>MN-WI</th>
<th>MN-WI</th>
<th>MN-WI</th>
<th>MN-WI</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Avg. of all farms</td>
<td>Crop</td>
<td>Dairy</td>
<td>Beef &amp; Crop</td>
<td>Other</td>
</tr>
<tr>
<td>Year</td>
<td>2020-2021</td>
<td>2-yr-avg</td>
<td>2020-2021</td>
<td>2-yr-avg</td>
<td>2020-2021</td>
</tr>
<tr>
<td></td>
<td>189</td>
<td>65</td>
<td>57</td>
<td>17</td>
<td>36</td>
</tr>
<tr>
<td>Percent of all farms</td>
<td>34</td>
<td>30</td>
<td>9</td>
<td>19</td>
<td></td>
</tr>
</tbody>
</table>

- Total crop acres: 325, 418, 299, 249, 169
- Total crop acres owned: 100, 98, 109, 91, 75
- Total crop acres cash rented: 218, 301, 188, 158, 94
- Total crop acres share rented: 7, 19, 2, -, -
- Machinery value per crop acre: 1,013, 618, 1,523, 1,273, 1,171

Data sources for this section of the report are described below. Note that transitioning farms are excluded as there were not enough records to sort by type.

FINBIN data sources for organic whole farm financial summary by farm type 2020-2021 (# farms)

- MN State College & University South (112)
- MN State College & University North (44)
- MN State College & University Red River Valley (2)
- Wisconsin Technical College System (29)
- Other Contributors (2)
- Years: 2020, 2021
- Special sorts included: Organic Farm (total), Organic farm (partial)
- Special sorts excluded: Organic transition
WHOLE FARM SUMMARY: FARM TYPE

**Crop.** Crop farmers were the youngest of all farm types (41.3 years), had the least experience (13.2 years), and net the largest return, $177,247 after accounting for cash farm expenses, inventory adjustments and depreciation. Strong organic grain prices in 2020-2021 benefited crop farms contributing to their strong (green) showing across all profitability indicators. Crop farms also tracked the lowest number of labor hours (paid and unpaid) among farm types averaging 2,094 hours annually and paid the highest wage of all farm types - $26.83/hour – approximately 50% more than the average hourly wage paid by all MN-WI organic farms in 2020-2021.

**Dairy.** Dairy farms reported the highest gross cash farm income and used almost four times as much labor combined as other organic farm types (6,300 hours annually). Hired labor accounted for more than half (51.7%) of total labor on dairy farms where operators paid $17.04/hour on average or $55,465 annually. These expenses were significant, with hired labor on dairy farms accounting for 9% of gross cash farm income. Operators contributed 3,045 hours of unpaid time on dairy farms, netting $38.79/hour during 2020-2021 for their time. Dairy farms ranked moderate (yellow) in terms of profitability. Higher than average organic grain prices in 2020-2021 would have negatively impacting dairy farms through fed grain.

**Beef & Crop.** Owners/operators of beef & crop farms were the oldest (50.6 years) among all farm types, had the most experience (27.9 years), and the strongest solvency rating among all farm types with a net worth over $1,000,000 likely due to the longevity of their operations. Despite these advantages, beef & crop farms ranked vulnerable (red) in terms of profitability overall and, like dairy farms, may have suffered from increased organic feed prices during 2020-2021.

All organic farm types showed strong liquidity and repayment capacity in 2020-2021. The current ratio and term-debt coverage ratios were strong (green) across the board for all farm types.

![Fig. 7. Percent Organic Farms by Type in MN-WI, 2020-2021](image)
## Farm Operator & Labor Information by Farm Type

<table>
<thead>
<tr>
<th>Farm type</th>
<th>MN-WI</th>
<th>MN-WI</th>
<th>MN-WI</th>
<th>MN-WI</th>
<th>MN-WI</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>All</td>
<td>Crop</td>
<td>Dairy</td>
<td>Beef &amp; Crop</td>
<td>Other</td>
</tr>
<tr>
<td><strong>Number of farms</strong></td>
<td>189</td>
<td>65</td>
<td>57</td>
<td>17</td>
<td>36</td>
</tr>
</tbody>
</table>

### Operator Information

- **Average number of operators**: 1.3, 1.2, 1.6, 1.2, 1.3
- **Average age of operators**: 44.5, 41.3, 46.5, 50.6, 42.8
- **Average number of years farming**: 18.4, 13.2, 20.7, 27.9, 17.0

### Labor Analysis

- **Total unpaid labor hours**: 2,067, 1,457, 3,045, 1,944, 1,750
- **Total hired labor hours**: 1,629, 637, 3,255, -, 818
- **Total labor hours per farm**: 3,696, 2,094, 6,300, 1,944, 2,568
- **Unpaid hours per operator**: 1,545, 1,263, 1,908, 1,574, 1,376
- **Value farm production/hr**: 114.60, 219.35, 79.21, 131.83, 103.54
- **Net farm income/unpaid hr**: 59.68, 121.64, 38.79, 31.88, 48.02
- **Average hired labor wage ($/hour)**: 17.85, 26.83, 17.04, -, 17.30

---

1/ Farms represent “organic (total)” and “organic (partial).” Does not include “organic transition” farms.
## Income & Profitability by Farm Type

<table>
<thead>
<tr>
<th>Farm type</th>
<th>Avg. of all farms</th>
<th>Crop</th>
<th>Dairy</th>
<th>Beef &amp; Crop</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of farms¹</td>
<td>189</td>
<td>65</td>
<td>57</td>
<td>17</td>
<td>36</td>
</tr>
</tbody>
</table>

### Summary income statement ($)

<table>
<thead>
<tr>
<th>Summary income statement ($)</th>
<th>MN-WI</th>
<th>MN-WI</th>
<th>MN-WI</th>
<th>MN-WI</th>
<th>MN-WI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gross cash farm income</td>
<td>441,175</td>
<td>388,375</td>
<td>621,378</td>
<td>286,771</td>
<td>246,689</td>
</tr>
<tr>
<td>Total cash farm expense</td>
<td>339,811</td>
<td>276,477</td>
<td>485,362</td>
<td>223,494</td>
<td>201,525</td>
</tr>
<tr>
<td>Net cash farm income</td>
<td>101,364</td>
<td>111,898</td>
<td>136,016</td>
<td>63,277</td>
<td>45,164</td>
</tr>
<tr>
<td>Inventory change</td>
<td>52,547</td>
<td>85,002</td>
<td>25,090</td>
<td>14,886</td>
<td>64,811</td>
</tr>
<tr>
<td>Depreciation</td>
<td>-30,589</td>
<td>-19,653</td>
<td>-42,973</td>
<td>-16,183</td>
<td>-25,931</td>
</tr>
<tr>
<td>Net farm income from operations</td>
<td>123,322</td>
<td>177,247</td>
<td>118,134</td>
<td>61,980</td>
<td>84,044</td>
</tr>
<tr>
<td>Gain or loss on capital sales</td>
<td>1,246</td>
<td>2,169</td>
<td>1,080</td>
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<td>248</td>
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### Average net farm income ($) 

<table>
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<tr>
<th>Average net farm income ($)</th>
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<th>MN-WI</th>
<th>MN-WI</th>
<th>MN-WI</th>
<th>MN-WI</th>
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</thead>
<tbody>
<tr>
<td>124,569</td>
<td>179,417</td>
<td>119,214</td>
<td>61,831</td>
<td>84,292</td>
<td></td>
</tr>
</tbody>
</table>

### Median net farm income ($) 

<table>
<thead>
<tr>
<th>Median net farm income ($)</th>
<th>MN-WI</th>
<th>MN-WI</th>
<th>MN-WI</th>
<th>MN-WI</th>
<th>MN-WI</th>
</tr>
</thead>
<tbody>
<tr>
<td>74,109</td>
<td>105,379</td>
<td>90,163</td>
<td>50,159</td>
<td>33,393</td>
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</tbody>
</table>

### Profitability (cost)

<table>
<thead>
<tr>
<th>Profitability (cost)</th>
<th>MN-WI</th>
<th>MN-WI</th>
<th>MN-WI</th>
<th>MN-WI</th>
<th>MN-WI</th>
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</thead>
<tbody>
<tr>
<td>Rate of return on assets (%)</td>
<td>7.9</td>
<td>12.2</td>
<td>6.1</td>
<td>2.5</td>
<td>7.3</td>
</tr>
<tr>
<td>Rate of return on equity (%)</td>
<td>11.3</td>
<td>18.9</td>
<td>8.4</td>
<td>1.7</td>
<td>9.7</td>
</tr>
<tr>
<td>Operating profit margin (%)</td>
<td>24.1</td>
<td>34.6</td>
<td>16.6</td>
<td>12.6</td>
<td>28.5</td>
</tr>
<tr>
<td>Asset turnover rate (%)</td>
<td>32.7</td>
<td>35.1</td>
<td>36.8</td>
<td>19.6</td>
<td>25.6</td>
</tr>
</tbody>
</table>

### Profitability (market)

<table>
<thead>
<tr>
<th>Profitability (market)</th>
<th>MN-WI</th>
<th>MN-WI</th>
<th>MN-WI</th>
<th>MN-WI</th>
<th>MN-WI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rate of return on assets (%)</td>
<td>6.4</td>
<td>9.7</td>
<td>5.3</td>
<td>1.8</td>
<td>5.9</td>
</tr>
<tr>
<td>Rate of return on equity (%)</td>
<td>8.6</td>
<td>14.5</td>
<td>6.7</td>
<td>1.2</td>
<td>7.5</td>
</tr>
<tr>
<td>Operating profit margin (%)</td>
<td>24.1</td>
<td>32.8</td>
<td>19.1</td>
<td>12.3</td>
<td>30.8</td>
</tr>
<tr>
<td>Asset turnover rate (%)</td>
<td>32.7</td>
<td>29.6</td>
<td>28.0</td>
<td>14.8</td>
<td>19.1</td>
</tr>
</tbody>
</table>

¹/ Farms represent "organic (total)” and “organic (partial).” Does not include “organic transition” farms.
This farm income statement reports information from the previous page in greater detail.

<table>
<thead>
<tr>
<th></th>
<th>MN-WI Avg. of all farms</th>
<th>MN-WI Crop</th>
<th>MN-WI Dairy</th>
<th>MN-WI Beef &amp; Crop</th>
<th>MN-WI Other</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Farm type</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Number of farms</strong></td>
<td>189</td>
<td>65</td>
<td>57</td>
<td>17</td>
<td>36</td>
</tr>
<tr>
<td><strong>Crop sales</strong></td>
<td>145,593</td>
<td>299,319</td>
<td>28,990</td>
<td>117,687</td>
<td>44,900</td>
</tr>
<tr>
<td><strong>Crop inventory change</strong></td>
<td>45,553</td>
<td>73,996</td>
<td>17,159</td>
<td>16,709</td>
<td>57,008</td>
</tr>
<tr>
<td><strong>Gross crop income</strong></td>
<td>191,146</td>
<td>373,315</td>
<td>46,149</td>
<td>134,397</td>
<td>101,908</td>
</tr>
<tr>
<td><strong>Livestock sales</strong></td>
<td>190,040</td>
<td>10,537</td>
<td>487,545</td>
<td>95,603</td>
<td>52,723</td>
</tr>
<tr>
<td><strong>Livestock inventory change</strong></td>
<td>1,594</td>
<td>3,155</td>
<td>-628</td>
<td>3,356</td>
<td>7,192</td>
</tr>
<tr>
<td><strong>Gross livestock income ($)</strong></td>
<td>196,634</td>
<td>13,692</td>
<td>486,917</td>
<td>98,959</td>
<td>59,915</td>
</tr>
<tr>
<td><strong>Government payments</strong></td>
<td>41,346</td>
<td>35,260</td>
<td>55,882</td>
<td>37,237</td>
<td>23,621</td>
</tr>
<tr>
<td><strong>Other cash farm income</strong></td>
<td>59,197</td>
<td>43,259</td>
<td>48,961</td>
<td>36,244</td>
<td>125,445</td>
</tr>
<tr>
<td><strong>Change in accounts receivable</strong></td>
<td>-1,532</td>
<td>-4,673</td>
<td>-2,571</td>
<td>-2,778</td>
<td>7,492</td>
</tr>
<tr>
<td><strong>Gain or loss on hedging accounts</strong></td>
<td>-4,164</td>
<td>-11,282</td>
<td>-</td>
<td>-2,897</td>
<td>155</td>
</tr>
<tr>
<td><strong>Change in other assets</strong></td>
<td>5,238</td>
<td>16,877</td>
<td>-431</td>
<td>804</td>
<td>-2,916</td>
</tr>
<tr>
<td><strong>Gain or loss on breeding livestock</strong></td>
<td>-1,649</td>
<td>-1,664</td>
<td>-1,583</td>
<td>6</td>
<td>-1,320</td>
</tr>
<tr>
<td><strong>Gross farm income ($)</strong></td>
<td>486,215</td>
<td>464,784</td>
<td>633,323</td>
<td>301,970</td>
<td>314,300</td>
</tr>
<tr>
<td><strong>Cash operating expenses</strong></td>
<td>315,235</td>
<td>256,497</td>
<td>456,542</td>
<td>207,205</td>
<td>183,489</td>
</tr>
<tr>
<td><strong>Change in prepaids &amp; supplies</strong></td>
<td>-3,632</td>
<td>408</td>
<td>-6,819</td>
<td>-387</td>
<td>-5,776</td>
</tr>
<tr>
<td><strong>Change in growing crops</strong></td>
<td>-1,253</td>
<td>-3,560</td>
<td>700</td>
<td>-1,391</td>
<td>-102</td>
</tr>
<tr>
<td><strong>Change in accounts payable</strong></td>
<td>-2,410</td>
<td>-6,709</td>
<td>-5,424</td>
<td>838</td>
<td>8,367</td>
</tr>
<tr>
<td><strong>Depreciation</strong></td>
<td>30,589</td>
<td>19,653</td>
<td>42,973</td>
<td>16,183</td>
<td>25,931</td>
</tr>
<tr>
<td><strong>Total operating expense</strong></td>
<td>338,530</td>
<td>266,288</td>
<td>487,972</td>
<td>222,448</td>
<td>211,909</td>
</tr>
<tr>
<td><strong>Total interest expense</strong></td>
<td>24,363</td>
<td>21,249</td>
<td>27,217</td>
<td>17,542</td>
<td>18,347</td>
</tr>
<tr>
<td><strong>Total expenses ($)</strong></td>
<td>362,893</td>
<td>287,537</td>
<td>515,189</td>
<td>239,990</td>
<td>230,256</td>
</tr>
<tr>
<td><strong>Net farm income from operations</strong></td>
<td>123,322</td>
<td>177,247</td>
<td>118,134</td>
<td>61,980</td>
<td>84,044</td>
</tr>
<tr>
<td><strong>Gain or loss on capital sales</strong></td>
<td>1,246</td>
<td>2,169</td>
<td>1,080</td>
<td>-149</td>
<td>248</td>
</tr>
<tr>
<td><strong>Avg. Net farm income ($)</strong></td>
<td>124,569</td>
<td>179,417</td>
<td>119,214</td>
<td>61,831</td>
<td>84,292</td>
</tr>
</tbody>
</table>

1/ Farms represent “organic (total)” and “organic (partial).” Does not include “organic transition” farms.
### Liquidity, Repayment Capacity & Solvency by Farm Type

<table>
<thead>
<tr>
<th></th>
<th>MN-WI All</th>
<th>MN-WI Crop</th>
<th>MN-WI Dairy</th>
<th>MN-WI Beef &amp; Crop</th>
<th>MN-WI Other</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Year</strong></td>
<td>2020-2021</td>
<td>2020-2021</td>
<td>2020-2021</td>
<td>2020-2021</td>
<td>2020-2021</td>
</tr>
<tr>
<td><strong>Number of farms</strong></td>
<td>189</td>
<td>65</td>
<td>57</td>
<td>17</td>
<td>36</td>
</tr>
<tr>
<td><strong>Liquidity &amp; Repayment</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Current assets ($)</td>
<td>291,751</td>
<td>358,413</td>
<td>230,729</td>
<td>249,908</td>
<td>250,535</td>
</tr>
<tr>
<td>Current liabilities ($)</td>
<td>119,524</td>
<td>148,053</td>
<td>110,758</td>
<td>92,876</td>
<td>78,254</td>
</tr>
<tr>
<td>Current ratio</td>
<td>2.44</td>
<td>2.42</td>
<td>2.08</td>
<td>2.69</td>
<td>3.20</td>
</tr>
<tr>
<td>Working capital ($)</td>
<td>172,227</td>
<td>210,360</td>
<td>119,971</td>
<td>157,032</td>
<td>172,281</td>
</tr>
<tr>
<td>Working capital to gross revenue (%)</td>
<td>35.4</td>
<td>45.3</td>
<td>18.9</td>
<td>52.0</td>
<td>54.8</td>
</tr>
<tr>
<td>Term debt coverage ratio</td>
<td>2.58</td>
<td>4.31</td>
<td>1.94</td>
<td>1.96</td>
<td>2.88</td>
</tr>
<tr>
<td>Replacement coverage ratio</td>
<td>2.04</td>
<td>3.50</td>
<td>1.57</td>
<td>1.10</td>
<td>2.02</td>
</tr>
<tr>
<td>Term debt to EBITDA</td>
<td>2.57</td>
<td>1.77</td>
<td>2.84</td>
<td>3.11</td>
<td>3.01</td>
</tr>
<tr>
<td><strong>Solvency (cost)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total assets ($)</td>
<td>1,512,302</td>
<td>1,583,319</td>
<td>1,490,225</td>
<td>1,511,292</td>
<td>1,314,556</td>
</tr>
<tr>
<td>Total liabilities ($)</td>
<td>661,344</td>
<td>658,148</td>
<td>739,088</td>
<td>473,104</td>
<td>472,480</td>
</tr>
<tr>
<td>Net worth ($)</td>
<td>850,958</td>
<td>925,171</td>
<td>751,137</td>
<td>1,038,188</td>
<td>842,076</td>
</tr>
<tr>
<td>Farm debt to asset ratio (%)</td>
<td>46</td>
<td>43</td>
<td>51</td>
<td>33</td>
<td>41</td>
</tr>
<tr>
<td>Total debt to asset ratio (%)</td>
<td>44</td>
<td>42</td>
<td>50</td>
<td>31</td>
<td>36</td>
</tr>
<tr>
<td><strong>Solvency (market)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total assets ($)</td>
<td>1,512,302</td>
<td>1,899,663</td>
<td>1,954,377</td>
<td>1,974,591</td>
<td>1,705,893</td>
</tr>
<tr>
<td>Total liabilities ($)</td>
<td>661,344</td>
<td>762,120</td>
<td>823,005</td>
<td>566,623</td>
<td>579,473</td>
</tr>
<tr>
<td>Net worth ($)</td>
<td>850,958</td>
<td>1,137,543</td>
<td>1,131,373</td>
<td>1,407,968</td>
<td>1,126,420</td>
</tr>
<tr>
<td>Farm debt to asset ratio (%)</td>
<td>46</td>
<td>42</td>
<td>43</td>
<td>31</td>
<td>38</td>
</tr>
<tr>
<td>Total debt to asset ratio (%)</td>
<td>44</td>
<td>40</td>
<td>42</td>
<td>29</td>
<td>34</td>
</tr>
</tbody>
</table>

1/ A complete balance sheet at cost and market values are available online at [www.FINBIN.umn.edu](http://www.FINBIN.umn.edu).
2/ Farms represent “organic (total)” and “organic (partial).” Does not include “organic transition” farms.
3/ End of year.
4/ EBITDA represents earnings before interest, taxes, depreciation and amortization.
**FARM SIZE**

In this section, the whole farm financial summary is reported for total organic and partial organic operations by farm size. Farm size in FINBIN is measured by the number of crop acres with organic farms from <100 acres to 1,500 acres. Alternatively, farm size can be measured by income as is done by USDA ERS. According to the USDA ERS farm typology definition, small farms generate $350,000 or less in gross sales, mid-size farms $351,000 to $999,999 in gross sales and large farms $1,000,000 or more in gross sales. Using the USDA ERS farm size metric, the majority of organic farms in FINBIN are considered small (52%) followed by mid-size (40%) and large (8%) (Fig. 8). Data sources for this section of the report are described below.

<table>
<thead>
<tr>
<th>Year</th>
<th>MN-WI</th>
<th>MN-WI</th>
<th>MN-WI</th>
<th>MN-WI</th>
<th>MN-WI</th>
<th>MN-WI</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>All</td>
<td>&lt; 100 acres</td>
<td>101–250 acres</td>
<td>251–500 acres</td>
<td>501-1,000 acres</td>
<td>1,001-1,500 acres</td>
</tr>
<tr>
<td>Number of farms</td>
<td>189</td>
<td>40</td>
<td>59</td>
<td>52</td>
<td>23</td>
<td>15</td>
</tr>
<tr>
<td>Percent of all farms</td>
<td>-</td>
<td>21</td>
<td>31</td>
<td>28</td>
<td>12</td>
<td>8</td>
</tr>
<tr>
<td>Tl. crop acres</td>
<td>325</td>
<td>34</td>
<td>184</td>
<td>341</td>
<td>619</td>
<td>1,153</td>
</tr>
<tr>
<td>Tl. crop acres owned</td>
<td>100</td>
<td>21</td>
<td>96</td>
<td>84</td>
<td>178</td>
<td>262</td>
</tr>
<tr>
<td>% crop acres owned</td>
<td>31</td>
<td>62</td>
<td>52</td>
<td>25</td>
<td>29</td>
<td>23</td>
</tr>
<tr>
<td>Tl. crop acres cash rented</td>
<td>218</td>
<td>13</td>
<td>90</td>
<td>246</td>
<td>440</td>
<td>871</td>
</tr>
<tr>
<td>% crop acres rented</td>
<td>67</td>
<td>38</td>
<td>49</td>
<td>72</td>
<td>71</td>
<td>76</td>
</tr>
<tr>
<td>Tl. crop acres share rented</td>
<td>7</td>
<td>-</td>
<td>7</td>
<td>12</td>
<td>1</td>
<td>20</td>
</tr>
</tbody>
</table>

1/ Farms represent “organic (total)” and “organic (partial).” Does not include “organic transition” farms.

**FINBIN data sources for organic financial summary by farm size 2020-2021 (# farms)**

- MN State College & University South, (112)
- MN State College & University North, (44)
- Wisconsin Technical College System, (29)
- MN State College & University Red River Valley, (2)
- Other Contributors, (2)
- Location: Minnesota, Wisconsin
- Year(s): 2021, 2020
- Special sorts included: Organic farm (total), Organic farm (partial)
- Special sorts excluded: Organic transition
WHOLE FARM SUMMARY: FARM SIZE

Small farms (<250 acres; <$350,000 gross sales). Unsurprisingly, small organic farms with <100 acres had the lowest median net farm income, $39,361, of all farm size groups. However, these small producers were financially efficient, posting some of the strongest farm financial benchmarks. In fact, the smallest farm size group often out-performed farms in the larger 1,001 to 1,500-acre category as well as mid-size farms of 101 to 1,000 acres. Small farms ranked strong or green, on average, for indicators of profitability, liquidity and repayment capacity. Small farms ranked yellow (moderate) for solvency. This is not surprising given that small farms were owned by younger operators with less farm experience and presumably fewer assets.

Midsize farms (251–1,000 acres; $351,000 - $1,000,000 gross sales). Midsize farm financial performance was mixed with 251-500-acre farms, scoring moderate (yellow) for profitability and solvency and vulnerable (red) in terms of financial efficiency (asset turnover rate). Conversely, midsize farms with 501-1,000 acres posted the strongest median net farm income, $159,882 on average among all farm types, and did so while making efficient use of labor. The proportion of unpaid labor hours was substantially lower on farms that managed 501-1,000 acres compared to other organic farms. These same mid-sized farms scored green for profitability indicators such as rate of return on assets and rate of return on equity but were more vulnerable when it came to liquidity indicators (current ratio) and vulnerable or red in terms of solvency (farm debt to asset ratio at cost) suggesting they were highly leveraged.

Large farms (1,001-1,500 acres; >$1,000,000 gross sales). Large organic farms averaged $150,215 in median net farm income for 2020-2021 and the largest return to unpaid labor, $130.31/hour. When farm debt-to-asset ratios were analyzed, farms with 1,001-1,500 acres scored less than 36% (cost basis) or moderate (yellow). In terms of working capital, these same farms managed the largest amount of working capital, $430,006.

Fig. 8. Percent Organic Farms by Size in MN-WI, 2020-2021

- % Organic Farms
- % Small-size
- % Mid-size
- % Large-size
# Farm Operator and Labor Information by Farm Size

<table>
<thead>
<tr>
<th></th>
<th>MN-WI</th>
<th>MN-WI</th>
<th>MN-WI</th>
<th>MN-WI</th>
<th>MN-WI</th>
<th>MN-WI</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>All</td>
<td>&lt; 100</td>
<td>101–250</td>
<td>251–500</td>
<td>501–1,000</td>
<td>1,001–1,500</td>
</tr>
<tr>
<td>Number of farms¹</td>
<td>189</td>
<td>40</td>
<td>59</td>
<td>52</td>
<td>23</td>
<td>15</td>
</tr>
</tbody>
</table>

### Operator Information

<table>
<thead>
<tr>
<th></th>
<th>MN-WI</th>
<th>MN-WI</th>
<th>MN-WI</th>
<th>MN-WI</th>
<th>MN-WI</th>
<th>MN-WI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average number of operators</td>
<td>1.3</td>
<td>1.3</td>
<td>1.2</td>
<td>1.5</td>
<td>1.4</td>
<td>1.3</td>
</tr>
<tr>
<td>Average age of operators</td>
<td>44.5</td>
<td>38.7</td>
<td>44.7</td>
<td>47.0</td>
<td>45.3</td>
<td>47.8</td>
</tr>
<tr>
<td>Average number of years farming</td>
<td>18.4</td>
<td>9.0</td>
<td>18.6</td>
<td>21.3</td>
<td>20.5</td>
<td>28.2</td>
</tr>
</tbody>
</table>

### Labor Analysis

<table>
<thead>
<tr>
<th></th>
<th>MN-WI</th>
<th>MN-WI</th>
<th>MN-WI</th>
<th>MN-WI</th>
<th>MN-WI</th>
<th>MN-WI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total unpaid labor hours</td>
<td>2,067</td>
<td>1,721</td>
<td>1,952</td>
<td>2,655</td>
<td>1,340</td>
<td>2,511</td>
</tr>
<tr>
<td>Total hired labor hours</td>
<td>1,629</td>
<td>400</td>
<td>863</td>
<td>1,755</td>
<td>3,424</td>
<td>4,733</td>
</tr>
<tr>
<td>Total labor hours per farm</td>
<td>3,696</td>
<td>2,122</td>
<td>2,815</td>
<td>4,409</td>
<td>4,764</td>
<td>7,244</td>
</tr>
<tr>
<td>Unpaid hours per operator</td>
<td>1,545</td>
<td>1,342</td>
<td>1,611</td>
<td>1,747</td>
<td>963</td>
<td>1,982</td>
</tr>
<tr>
<td>Value farm production/hr ($)</td>
<td>114.60</td>
<td>103.08</td>
<td>91.59</td>
<td>96.48</td>
<td>135.09</td>
<td>176.34</td>
</tr>
<tr>
<td>Net farm income/unpaid hr ($)</td>
<td>59.68</td>
<td>59.29</td>
<td>36.43</td>
<td>46.24</td>
<td>121.29</td>
<td>130.31</td>
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<tr>
<td>Average hourly hired labor wage ($)</td>
<td>17.85</td>
<td>14.73</td>
<td>13.37</td>
<td>16.59</td>
<td>18.18</td>
<td>23.01</td>
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### Partnerships & LLCs

<table>
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<tbody>
<tr>
<td>Number of farms</td>
<td>40</td>
<td>9</td>
<td>6</td>
<td>15</td>
<td>5</td>
<td>5</td>
</tr>
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</table>

¹ Farms represent “organic (total)” and “organic (partial).” Does not include “organic transition” farms.
## Income & Profitability by Farm Size

<table>
<thead>
<tr>
<th></th>
<th>MN-WI</th>
<th>MN-WI</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>All</td>
<td>&lt; 100 acres</td>
<td>101–250 acres</td>
<td>251–500 acres</td>
<td>501–1,000 acres</td>
<td>1,001–5,000 acres</td>
</tr>
<tr>
<td><strong>Number of farms</strong></td>
<td>189</td>
<td>40</td>
<td>59</td>
<td>52</td>
<td>23</td>
<td>15</td>
</tr>
<tr>
<td><strong>Total crop acres</strong></td>
<td>325</td>
<td>34</td>
<td>184</td>
<td>341</td>
<td>619</td>
<td>1,153</td>
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### Income statement ($)

<table>
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<tr>
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<tbody>
<tr>
<td>Gross cash farm income</td>
<td>441,175</td>
<td>201,321</td>
<td>292,293</td>
<td>470,901</td>
<td>609,125</td>
<td>1,305,822</td>
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<tr>
<td>Total cash farm expense</td>
<td>339,811</td>
<td>145,223</td>
<td>234,115</td>
<td>356,915</td>
<td>471,700</td>
<td>1,012,926</td>
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<tr>
<td>Net cash farm income</td>
<td>101,364</td>
<td>56,098</td>
<td>58,178</td>
<td>113,986</td>
<td>137,425</td>
<td>292,896</td>
</tr>
<tr>
<td>Inventory change</td>
<td>52,547</td>
<td>55,098</td>
<td>36,326</td>
<td>40,558</td>
<td>76,404</td>
<td>113,157</td>
</tr>
<tr>
<td>Depreciation</td>
<td>-30,589</td>
<td>-9,646</td>
<td>-23,386</td>
<td>-31,781</td>
<td>-51,295</td>
<td>-78,891</td>
</tr>
<tr>
<td>Net farm income from operations</td>
<td>123,322</td>
<td>102,065</td>
<td>71,118</td>
<td>122,762</td>
<td>162,535</td>
<td>327,161</td>
</tr>
<tr>
<td>Gain or loss on capital sales</td>
<td>1,246</td>
<td>-14</td>
<td>907</td>
<td>1,979</td>
<td>-2,347</td>
<td>8,914</td>
</tr>
<tr>
<td><strong>Avg. net farm income ($)</strong></td>
<td>124,569</td>
<td>102,051</td>
<td>72,024</td>
<td>124,741</td>
<td>160,188</td>
<td>336,075</td>
</tr>
<tr>
<td><strong>Median net farm income ($)</strong></td>
<td>74,109</td>
<td>39,361</td>
<td>55,867</td>
<td>102,157</td>
<td>159,882</td>
<td>150,215</td>
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<tr>
<td><strong>Net nonfarm income ($)</strong></td>
<td>32,241</td>
<td>34,862</td>
<td>47,479</td>
<td>22,870</td>
<td>13,113</td>
<td>52,335</td>
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### Profitability (cost)

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<tbody>
<tr>
<td>Rate of return on assets (%)</td>
<td>7.9</td>
<td>12.5</td>
<td>5.3</td>
<td>7.3</td>
<td>8.1</td>
<td>9.5</td>
</tr>
<tr>
<td>Rate of return on equity (%)</td>
<td>11.3</td>
<td>21.2</td>
<td>5.9</td>
<td>10.8</td>
<td>14.5</td>
<td>13.0</td>
</tr>
<tr>
<td>Operating profit margin (%)</td>
<td>24.1</td>
<td>39.1</td>
<td>23.6</td>
<td>21.6</td>
<td>20.9</td>
<td>23.1</td>
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<tr>
<td>Asset turnover rate (%)</td>
<td>32.7</td>
<td>31.9</td>
<td>22.4</td>
<td>34.0</td>
<td>38.8</td>
<td>41.2</td>
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</tbody>
</table>

### Profitability (market)

<table>
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<th>MN-WI</th>
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<th>MN-WI</th>
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<tbody>
<tr>
<td>Rate of return on assets (%)</td>
<td>6.4</td>
<td>11.4</td>
<td>4.8</td>
<td>6.2</td>
<td>6.1</td>
<td>7.0</td>
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<tr>
<td>Rate of return on equity (%)</td>
<td>8.6</td>
<td>18.4</td>
<td>5.5</td>
<td>10.8</td>
<td>8.5</td>
<td>9.5</td>
</tr>
<tr>
<td>Operating profit margin (%)</td>
<td>24.1</td>
<td>40.4</td>
<td>29.2</td>
<td>21.6</td>
<td>21.5</td>
<td>19.5</td>
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<tr>
<td>Asset turnover rate (%)</td>
<td>32.7</td>
<td>28.3</td>
<td>16.5</td>
<td>34.0</td>
<td>28.6</td>
<td>35.9</td>
</tr>
</tbody>
</table>

1/ Represents weighted average of "501-1,000" and "1,001-5,000" acre farms combined.
2/ Farms represent "organic (total)" and "organic (partial)." Does not include "organic transition" farms.
This farm income statement reports information from the previous page in greater detail.

<table>
<thead>
<tr>
<th></th>
<th>MN-WI All</th>
<th>MN-WI &lt; 100 acres</th>
<th>MN-WI 101–250 acres</th>
<th>MN-WI 251–500 acres</th>
<th>MN-WI 501–1,000 acres</th>
<th>MN-WI 1,001–1,500 acres</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Number of farms</strong></td>
<td>189</td>
<td>40</td>
<td>59</td>
<td>52</td>
<td>23</td>
<td>15</td>
</tr>
<tr>
<td><strong>Crop sales</strong></td>
<td>145,593</td>
<td>36,870</td>
<td>55,956</td>
<td>112,401</td>
<td>324,249</td>
<td>629,212</td>
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<tr>
<td><strong>Crop inventory change</strong></td>
<td>45,553</td>
<td>48,400</td>
<td>12,702</td>
<td>25,957</td>
<td>102,717</td>
<td>147,458</td>
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<tr>
<td><strong>Gross crop income</strong></td>
<td>191,146</td>
<td>85,270</td>
<td>68,659</td>
<td>138,358</td>
<td>426,966</td>
<td>776,670</td>
</tr>
<tr>
<td><strong>Livestock sales</strong></td>
<td>195,040</td>
<td>104,143</td>
<td>148,983</td>
<td>268,312</td>
<td>442,843</td>
<td>776,670</td>
</tr>
<tr>
<td><strong>Livestock inventory change</strong></td>
<td>1,594</td>
<td>1,307</td>
<td>7,204</td>
<td>-840</td>
<td>1,048</td>
<td>-10,436</td>
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<tr>
<td><strong>Gross livestock income ($)</strong></td>
<td>196,634</td>
<td>105,450</td>
<td>156,187</td>
<td>267,472</td>
<td>432,408</td>
<td>776,670</td>
</tr>
<tr>
<td><strong>Government payments</strong></td>
<td>41,346</td>
<td>16,490</td>
<td>30,411</td>
<td>44,664</td>
<td>58,338</td>
<td>113,078</td>
</tr>
<tr>
<td><strong>Other cash farm income</strong></td>
<td>59,197</td>
<td>43,817</td>
<td>56,942</td>
<td>82,540</td>
<td>120,668</td>
<td>251–500 acres</td>
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<tr>
<td><strong>Change in accounts receivable</strong></td>
<td>-1,532</td>
<td>8,494</td>
<td>-1,414</td>
<td>-2,128</td>
<td>-7,962</td>
<td>-16,803</td>
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<tr>
<td><strong>Gain or loss on hedging accounts</strong></td>
<td>-4,164</td>
<td>139</td>
<td>-1,009</td>
<td>471</td>
<td>1,055</td>
<td>-52,120</td>
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<tr>
<td><strong>Change in other assets</strong></td>
<td>5,238</td>
<td>5,081</td>
<td>12,719</td>
<td>4,785</td>
<td>-17,796</td>
<td>13,119</td>
</tr>
<tr>
<td><strong>Gain or loss on breeding livestock</strong></td>
<td>-1,649</td>
<td>-992</td>
<td>-2,143</td>
<td>2,490</td>
<td>-6,403</td>
<td>-8,517</td>
</tr>
<tr>
<td><strong>Gross farm income ($)</strong></td>
<td>486,215</td>
<td>263,750</td>
<td>320,352</td>
<td>501,636</td>
<td>681,783</td>
<td>1,378,522</td>
</tr>
<tr>
<td><strong>Cash operating expenses</strong></td>
<td>315,235</td>
<td>135,296</td>
<td>214,375</td>
<td>331,548</td>
<td>424,656</td>
<td>967,461</td>
</tr>
<tr>
<td><strong>Change in prepaids &amp; supplies</strong></td>
<td>-3,632</td>
<td>-2,642</td>
<td>-5,838</td>
<td>-1,829</td>
<td>-2,598</td>
<td>-5,433</td>
</tr>
<tr>
<td><strong>Change in growing crops</strong></td>
<td>-1,253</td>
<td>-330</td>
<td>-157</td>
<td>-3,704</td>
<td>-32</td>
<td>-1,392</td>
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<tr>
<td><strong>Change in accounts payable</strong></td>
<td>-2,410</td>
<td>8,914</td>
<td>-2,676</td>
<td>-3,091</td>
<td>1,079</td>
<td>-34,547</td>
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<tr>
<td><strong>Depreciation</strong></td>
<td>30,589</td>
<td>9,646</td>
<td>23,386</td>
<td>31,781</td>
<td>51,295</td>
<td>78,891</td>
</tr>
<tr>
<td><strong>Total operating expense</strong></td>
<td>338,530</td>
<td>150,884</td>
<td>229,090</td>
<td>354,705</td>
<td>474,399</td>
<td>1,004,980</td>
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<tr>
<td><strong>Total interest expense</strong></td>
<td>24,363</td>
<td>10,081</td>
<td>20,144</td>
<td>24,168</td>
<td>44,849</td>
<td>1,051,361</td>
</tr>
<tr>
<td><strong>Total expenses ($)</strong></td>
<td>362,893</td>
<td>161,685</td>
<td>249,234</td>
<td>378,874</td>
<td>519,248</td>
<td>1,051,361</td>
</tr>
<tr>
<td><strong>Net farm income from operations</strong></td>
<td>123,322</td>
<td>102,065</td>
<td>71,118</td>
<td>122,762</td>
<td>162,535</td>
<td>327,161</td>
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<td>1,246</td>
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<td>907</td>
<td>1,979</td>
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<td><strong>Avg. Net farm income ($)</strong></td>
<td>124,569</td>
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<td>160,188</td>
<td>336,075</td>
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</table>

1/ Farms represent “organic (total)” and “organic (partial).” Does not include “organic transition” farms.
## Liquidity & Repayment Capacity by Farm Size

<table>
<thead>
<tr>
<th>Year</th>
<th>MN-WI</th>
<th>MN-WI</th>
<th>MN-WI</th>
<th>MN-WI</th>
<th>MN-WI</th>
<th>MN-WI</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>All</td>
<td>&lt; 100 acres</td>
<td>101–250 acres</td>
<td>251–500 acres</td>
<td>501-1,000 acres</td>
<td>1,001-1,500 acres</td>
</tr>
<tr>
<td><strong>Number of farms</strong>&lt;sup&gt;1&lt;/sup&gt;</td>
<td>189</td>
<td>40</td>
<td>59</td>
<td>52</td>
<td>23</td>
<td>15</td>
</tr>
<tr>
<td><strong>Liquidity and repayment</strong>&lt;sup&gt;2&lt;/sup&gt;</td>
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<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Current ratio</td>
<td>2.44</td>
<td>3.44</td>
<td>2.71</td>
<td>2.52</td>
<td>1.88</td>
<td>2.23</td>
</tr>
<tr>
<td>Working capital ($)</td>
<td>172,227</td>
<td>127,526</td>
<td>133,155</td>
<td>171,201</td>
<td>184,402</td>
<td>430,006</td>
</tr>
<tr>
<td>Working capital to gross income (%)</td>
<td>35.4</td>
<td>48.4</td>
<td>41.6</td>
<td>34.1</td>
<td>27.0</td>
<td>31.2</td>
</tr>
<tr>
<td>Current assets ($)</td>
<td>291,751</td>
<td>179,846</td>
<td>210,916</td>
<td>283,565</td>
<td>393,933</td>
<td>779,814</td>
</tr>
<tr>
<td>Current liabilities ($)</td>
<td>119,524</td>
<td>52,320</td>
<td>77,762</td>
<td>112,364</td>
<td>209,531</td>
<td>349,808</td>
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<tr>
<td>Gross revenues (accrual) ($)</td>
<td>486,215</td>
<td>263,750</td>
<td>320,352</td>
<td>501,636</td>
<td>681,783</td>
<td>1,378,522</td>
</tr>
<tr>
<td>Interest on term debt ($)</td>
<td>22,001</td>
<td>11,889</td>
<td>17,400</td>
<td>22,748</td>
<td>38,049</td>
<td>39,863</td>
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<tr>
<td>Term debt coverage ratio</td>
<td>2.58</td>
<td>3.63</td>
<td>2.58</td>
<td>2.08</td>
<td>2.11</td>
<td>3.45</td>
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<tr>
<td>Replacement coverage</td>
<td>2.04</td>
<td>3.10</td>
<td>1.81</td>
<td>1.73</td>
<td>1.76</td>
<td>2.64</td>
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</table>

<sup>1</sup> Farms represent “organic (total)” and “organic (partial).” Does not include “organic transition” farms.

<sup>2</sup> Reported as end of year.
## Solvency by Farm Size

<table>
<thead>
<tr>
<th></th>
<th>MN-WI</th>
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<td>251–500 acres</td>
<td>501–1,000 acres</td>
<td>1,001–1,500 acres</td>
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<tr>
<td><strong>Year</strong></td>
<td></td>
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<td></td>
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<tr>
<td>2020–2021 2-yr-avg</td>
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<tr>
<td>2020–2021 2-yr-avg</td>
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<tr>
<td>2020–2021 2-yr-avg</td>
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<tr>
<td>2020–2021 2-yr-avg</td>
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<tr>
<td>2020–2021 2-yr-avg</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of farms²</td>
<td>189</td>
<td>40</td>
<td>59</td>
<td>52</td>
<td>23</td>
<td>15</td>
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### Solvency (cost)³

<table>
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<tr>
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<th>MN-WI</th>
<th>MN-WI</th>
<th>MN-WI</th>
<th>MN-WI</th>
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</thead>
<tbody>
<tr>
<td>Total farm assets ($)</td>
<td>1,358,196</td>
<td>756,216</td>
<td>1,184,928</td>
<td>1,313,471</td>
<td>1,745,963</td>
<td>3,205,468</td>
</tr>
<tr>
<td>Total assets (farm + nonfarm) ($)</td>
<td>1,512,302</td>
<td>810,868</td>
<td>1,425,512</td>
<td>1,421,523</td>
<td>1,841,853</td>
<td>3,533,553</td>
</tr>
<tr>
<td>Total farm liabilities ($)</td>
<td>623,371</td>
<td>363,510</td>
<td>470,403</td>
<td>645,831</td>
<td>1,066,417</td>
<td>1,160,813</td>
</tr>
<tr>
<td>Total liabilities (farm + nonfarm) ($)</td>
<td>661,344</td>
<td>389,947</td>
<td>515,219</td>
<td>668,949</td>
<td>1,110,334</td>
<td>1,245,013</td>
</tr>
<tr>
<td>Net worth (farm + nonfarm) ($)</td>
<td>850,958</td>
<td>420,921</td>
<td>910,293</td>
<td>752,574</td>
<td>731,520</td>
<td>2,288,540</td>
</tr>
<tr>
<td>Farm debt to asset ratio</td>
<td>46</td>
<td>48</td>
<td>40</td>
<td>49</td>
<td>61</td>
<td>36</td>
</tr>
<tr>
<td>Total debt to asset ratio</td>
<td>44</td>
<td>48</td>
<td>36</td>
<td>47</td>
<td>60</td>
<td>35</td>
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</tbody>
</table>

### Solvency (market)³

<table>
<thead>
<tr>
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<th>MN-WI</th>
<th>MN-WI</th>
<th>MN-WI</th>
<th>MN-WI</th>
<th>MN-WI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total farm assets ($)</td>
<td>1,713,507</td>
<td>850,634</td>
<td>1,603,945</td>
<td>1,665,047</td>
<td>2,334,893</td>
<td>3,660,648</td>
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<tr>
<td>Total assets (farm + nonfarm) ($)</td>
<td>1,909,377</td>
<td>973,389</td>
<td>1,893,697</td>
<td>1,803,421</td>
<td>2,459,336</td>
<td>3,991,068</td>
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<tr>
<td>Total farm liabilities ($)</td>
<td>623,371</td>
<td>363,510</td>
<td>470,403</td>
<td>645,831</td>
<td>1,066,417</td>
<td>1,160,813</td>
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<tr>
<td>Total liabilities (farm + nonfarm) ($)</td>
<td>761,237</td>
<td>420,727</td>
<td>614,607</td>
<td>774,248</td>
<td>1,222,002</td>
<td>1,494,391</td>
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<tr>
<td>Net worth (farm + nonfarm) ($)</td>
<td>1,148,141</td>
<td>552,661</td>
<td>1,279,090</td>
<td>1,029,173</td>
<td>1,237,334</td>
<td>2,496,677</td>
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<tr>
<td>Farm debt to asset ratio (%)</td>
<td>40</td>
<td>43</td>
<td>32</td>
<td>43</td>
<td>50</td>
<td>37</td>
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<tr>
<td>Total debt to asset ratio (%)</td>
<td>12</td>
<td>23</td>
<td>9</td>
<td>11</td>
<td>11</td>
<td>13</td>
</tr>
</tbody>
</table>

1/ A complete balance sheet at cost and market values are available on line at [www.FINBIN.umn.edu](http://www.FINBIN.umn.edu).
2/ Farms represent “organic (total)” and “organic (partial).” Does not include “organic transition” farms.
3/ Reported as end of year.
CROP ENTERPRISE SUMMARY

This section presents financial and production information for organic farms that produced commodity crops such as grains, oilseeds and forages. First, we take a look at organic commodity yield and prices for the 2020-2021 period and then dig a little deeper into 10-year averages for organic corn and soybeans represented in FINBIN. Rigorous longitudinal averages for organic corn and soybeans are possible because these two commodity crops have the largest number of organic farm records in FINBIN.

Next, we present enterprise analyses beginning with corn, followed by corn silage, soybeans, and alfalfa hay. Each crop enterprise summary begins with a financial benchmark report by performance ranking from the bottom 10% to the top 10% (shown as 100%) for all farms. Following the benchmarking summary are financial enterprise analyses depicted by year and by farm acreage to allow for comparisons across time and operation size. FINBIN lacked enough participating organic farms for wheat and other small grains enterprises. Recall, at least ten farms per column are required to generate specific sorts, so some tables will have farm acre size categories omitted.

General data sources for this section provided in the chart below.

<table>
<thead>
<tr>
<th>FINBIN data sources for organic crop production and marketing summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>2020-2021 (# farms)</td>
</tr>
<tr>
<td>MN State College &amp; University South (112)</td>
</tr>
<tr>
<td>MN State College &amp; University North (44)</td>
</tr>
<tr>
<td>Wisconsin Technical College System (29)</td>
</tr>
<tr>
<td>MN State College &amp; University Red River Valley (2)</td>
</tr>
<tr>
<td>Location: Minnesota, Wisconsin</td>
</tr>
<tr>
<td>Year: 2020-2021</td>
</tr>
<tr>
<td>Special sorts included: Organic farm (total), Organic farm (partial)</td>
</tr>
<tr>
<td>Special sorts excluded: Organic transition</td>
</tr>
</tbody>
</table>
The organic crop production and marketing summaries include 189 farms from MN-WI for the two-year period 2020-2021. Of these, the majority of crop producing farms (71%) were total organic while the remainder were partial organic. Crop farms averaged 325 acres. Thirty percent of crop acres farmed were owned; the majority (68%) were rented (Fig. 9). Organic crop farmers also maintained 54 acres of pasture, on average.

Field and forage crop yields and prices for the two-year period are presented in the table below. All information in the table comes from FINBIN farm records representing enterprises from total organic farms in MN-WI.

<table>
<thead>
<tr>
<th></th>
<th>MN-WI 2020</th>
<th>MN-WI 2021</th>
<th>MN-WI 2020–2021 2-yr-avg</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Number of farms</strong></td>
<td>89</td>
<td>100</td>
<td>189</td>
</tr>
<tr>
<td><strong>Average yield, organic</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corn (bu/acre)</td>
<td>130.51</td>
<td>152.36</td>
<td>142.13</td>
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<tr>
<td>Corn silage (ton/acre)</td>
<td>18.51</td>
<td>15.89</td>
<td>17.01</td>
</tr>
<tr>
<td>Oatlage ($/ton)</td>
<td>-</td>
<td>4.64</td>
<td>5.52</td>
</tr>
<tr>
<td>Oats (bu/acre)</td>
<td>43.93</td>
<td>55.26</td>
<td>49.44</td>
</tr>
<tr>
<td>Hay alfalfa (ton/acre)</td>
<td>3.34</td>
<td>3.65</td>
<td>3.50</td>
</tr>
<tr>
<td>Hay mixed (ton/acre)</td>
<td>2.42</td>
<td>2.91</td>
<td>2.77</td>
</tr>
<tr>
<td>Hay, grass (ton/acre)</td>
<td>-</td>
<td>2.06</td>
<td>2.38</td>
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<tr>
<td>Pasture intensive (aum/acre)</td>
<td>4.11</td>
<td>2.87</td>
<td>3.19</td>
</tr>
<tr>
<td>Pasture (aum/acre)</td>
<td>3.79</td>
<td>4.15</td>
<td>4.01</td>
</tr>
<tr>
<td>Soybeans (bu/acre)</td>
<td>32.98</td>
<td>34.21</td>
<td>33.72</td>
</tr>
<tr>
<td>Wheat, spring (bu/acre)</td>
<td>48.13</td>
<td>37.51</td>
<td>44.35</td>
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<tr>
<td><strong>Average price, organic</strong></td>
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<td></td>
</tr>
<tr>
<td>Corn ($/bu)</td>
<td>7.53</td>
<td>8.50</td>
<td>8.05</td>
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<tr>
<td>Soybeans ($/bu)</td>
<td>20.89</td>
<td>26.32</td>
<td>23.79</td>
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<tr>
<td>Oats ($/bu)</td>
<td>5.22</td>
<td>5.67</td>
<td>5.48</td>
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<tr>
<td>Hay alfalfa ($/ton)</td>
<td>148.15</td>
<td>109.80</td>
<td>122.398</td>
</tr>
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</table>

1/ Farms represent “organic (total).” Does not include “organic (partial)” or “organic transition” farms.
2/ Prices unavailable for all crops.
Organic Crop Prices and Yields, 2012-2021

MN and WI are some of the leading producers of organic corn and soybeans nationwide; combined, MN-WI account for 20% of U.S. organic corn acreage, 16% of organic soybean acreage, and 33% of MN-WI organic field crop acreage. For this reason, we take a closer look at organic corn and soybean yield and price information for the 10-year period, 2012-2021. The organic yield and price data in Figures 10 and 11 come from FINBIN farm records representing 345 organic corn enterprises and 164 organic soybean enterprises during 2012-2021.

The 10-year average yield for organic corn is 122.67 bu/acre. Productivity generally moved in an upward direction across the 2012-2021 time period, spanning from a low of 80.07 bu/acre in 2014 to a near doubling in 2021 of 154.26 bu/acre (Fig. 4). Alternatively, organic corn prices, which averaged $9.50/bu during the 10-year period, began at a high of $13.94/bu in 2012 and gradually moved lower under pressure from imports; the United States imported 42% of organic corn needs in 2016-2017. In 2021 organic corn prices rebounded due to a slowing of imports (supply chain issues caused 5-fold increase in shipping costs). Soybean yields varied less than corn – increasing approximately 40% from a low of 24.52 bu/acre in 2015 to a high of 36.47 bu/acre the following year. The 10-year average organic soybean yield is 31.51 bu/acre. Like organic corn, organic soybean prices also followed a generally downward trend with an unusual spike in 2021 thanks to a slowing of imports. The 10-year average organic soybean price is $23.51/bu.

# Organic Corn Benchmark Report for MN-WI Farms, 2020-2021

<table>
<thead>
<tr>
<th></th>
<th>Median</th>
<th>#</th>
<th>10%</th>
<th>20%</th>
<th>30%</th>
<th>40%</th>
<th>50%</th>
<th>60%</th>
<th>70%</th>
<th>80%</th>
<th>90%</th>
<th>100%</th>
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<tbody>
<tr>
<td><strong>Costs</strong></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td><strong>Yield (bu/acre)</strong></td>
<td>131.90</td>
<td>134</td>
<td>64</td>
<td>85</td>
<td>105</td>
<td>119</td>
<td>127</td>
<td>136</td>
<td>151</td>
<td>164</td>
<td>184</td>
<td>198</td>
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<tr>
<td><strong>Value ($/bu)</strong></td>
<td>8.30</td>
<td>134</td>
<td>6</td>
<td>7</td>
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<tr>
<td><strong>Total value</strong></td>
<td>1,061.28</td>
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<td>436</td>
<td>683</td>
<td>809</td>
<td>903</td>
<td>1004</td>
<td>1137</td>
<td>1281</td>
<td>1500</td>
<td>1616</td>
<td>1859</td>
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<tr>
<td><strong>Crop insurance</strong></td>
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<td>35</td>
<td>37</td>
<td>56</td>
<td>70</td>
<td>82</td>
<td>136</td>
<td>200</td>
<td>251</td>
<td>305</td>
<td>357</td>
<td>617</td>
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<td><strong>Other income</strong></td>
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<td>66</td>
<td>11</td>
<td>18</td>
<td>26</td>
<td>30</td>
<td>34</td>
<td>44</td>
<td>49</td>
<td>71</td>
<td>89</td>
<td>135</td>
</tr>
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<td><strong>Gross return</strong></td>
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<td>134</td>
<td>642</td>
<td>790</td>
<td>880</td>
<td>993</td>
<td>1065</td>
<td>11207</td>
<td>1294</td>
<td>1515</td>
<td>1674</td>
<td>1898</td>
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<tr>
<td><strong>Direct expenses ($/acre)</strong></td>
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<td></td>
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<td></td>
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<td></td>
<td></td>
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<tr>
<td><strong>Seed</strong></td>
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<td>136</td>
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<td>98</td>
<td>93</td>
<td>89</td>
<td>84</td>
<td>77</td>
<td>67</td>
<td>54</td>
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<td><strong>Fertilizer</strong></td>
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<td>268</td>
<td>240</td>
<td>210</td>
<td>181</td>
<td>142</td>
<td>118</td>
<td>111</td>
<td>84</td>
<td>55</td>
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<td><strong>Crop insur.</strong></td>
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<td>51</td>
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<td>22</td>
<td>17</td>
<td>13</td>
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<tr>
<td><strong>Drying</strong></td>
<td>15.36</td>
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<td>51</td>
<td>39</td>
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<td>19</td>
<td>16</td>
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<tr>
<td><strong>Fuel &amp; oil</strong></td>
<td>33.31</td>
<td>133</td>
<td>72</td>
<td>58</td>
<td>49</td>
<td>43</td>
<td>36</td>
<td>32</td>
<td>26</td>
<td>22</td>
<td>14</td>
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<tr>
<td><strong>Repairs</strong></td>
<td>50.28</td>
<td>133</td>
<td>133</td>
<td>111</td>
<td>83</td>
<td>73</td>
<td>62</td>
<td>46</td>
<td>39</td>
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<td><strong>Custom hire</strong></td>
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<td>139</td>
<td>83</td>
<td>76</td>
<td>59</td>
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<td>38</td>
<td>27</td>
<td>20</td>
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<td><strong>Land rent</strong></td>
<td>179.79</td>
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<td>313</td>
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<td>199</td>
<td>170</td>
<td>155</td>
<td>121</td>
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<td><strong>Organic certification</strong></td>
<td>3.79</td>
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<td><strong>Operating interest</strong></td>
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<tr>
<td><strong>Total direct expenses</strong></td>
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<td>134</td>
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<td>694</td>
<td>643</td>
<td>595</td>
<td>551</td>
<td>505</td>
<td>464</td>
<td>381</td>
<td>333</td>
<td>285</td>
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<td><strong>Return over dir. exp.</strong></td>
<td>623.95</td>
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<td>292</td>
<td>376</td>
<td>474</td>
<td>606</td>
<td>713</td>
<td>817</td>
<td>978</td>
<td>1104</td>
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<td><strong>Overhead expenses ($/acre)</strong></td>
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<td></td>
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<tr>
<td><strong>Hired labor</strong></td>
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<td>149</td>
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<tr>
<td><strong>Farm insurance</strong></td>
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<td><strong>Utilities</strong></td>
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<tr>
<td><strong>Dues &amp; prof. fees</strong></td>
<td>4.10</td>
<td>113</td>
<td>31</td>
<td>14</td>
<td>10</td>
<td>8</td>
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<td>2</td>
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<td>0</td>
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<td><strong>Interest on term debt</strong></td>
<td>6.87</td>
<td>85</td>
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<tr>
<td><strong>Machinery depr.</strong></td>
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<td>120</td>
<td>103</td>
<td>81</td>
<td>69</td>
<td>63</td>
<td>53</td>
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<td><strong>Building depreciation</strong></td>
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<tr>
<td><strong>Misc.</strong></td>
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<td>5</td>
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<tr>
<td><strong>Total overhead exp.</strong></td>
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<td>165</td>
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<td>115</td>
<td>98</td>
<td>78</td>
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<tr>
<td><strong>Total dir. &amp; ovhd. exp.</strong></td>
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<td>134</td>
<td>982</td>
<td>863</td>
<td>793</td>
<td>754</td>
<td>709</td>
<td>665</td>
<td>614</td>
<td>546</td>
<td>474</td>
<td>362</td>
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<tr>
<td><strong>Net return</strong></td>
<td>516.66</td>
<td>134</td>
<td>-140</td>
<td>115</td>
<td>261</td>
<td>345</td>
<td>458</td>
<td>557</td>
<td>667</td>
<td>757</td>
<td>920</td>
<td>1129</td>
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<td><strong>Gov’t. payments</strong></td>
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<td>0</td>
<td>0</td>
<td>8</td>
<td>18</td>
<td>30</td>
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<tr>
<td><strong>Net ret. w/gov’t pymts</strong></td>
<td>518.22</td>
<td>134</td>
<td>-110</td>
<td>144</td>
<td>288</td>
<td>365</td>
<td>469</td>
<td>568</td>
<td>678</td>
<td>782</td>
<td>920</td>
<td>1129</td>
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<tr>
<td><strong>Labor &amp; mgmt.</strong></td>
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<td>208</td>
<td>145</td>
<td>106</td>
<td>89</td>
<td>78</td>
<td>59</td>
<td>52</td>
<td>38</td>
<td>27</td>
<td>12</td>
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<tr>
<td><strong>Net return over lbr &amp; mgmt.</strong></td>
<td>459.60</td>
<td>134</td>
<td>-142</td>
<td>98</td>
<td>220</td>
<td>275</td>
<td>425</td>
<td>510</td>
<td>592</td>
<td>696</td>
<td>824</td>
<td>1054</td>
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<tr>
<td><strong>Direct cost prod./unit</strong></td>
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<td>5</td>
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<tr>
<td><strong>Dir &amp; ovhd. cost prod./unit</strong></td>
<td>5.23</td>
<td>134</td>
<td>10</td>
<td>8</td>
<td>7</td>
<td>6</td>
<td>5</td>
<td>5</td>
<td>5</td>
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<td>4</td>
<td>3</td>
</tr>
<tr>
<td><strong>COP less gov’t &amp; other income</strong></td>
<td>4.46</td>
<td>134</td>
<td>8</td>
<td>7</td>
<td>5</td>
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<tr>
<td><strong>Cost of prod. w/br&amp;mgmt.</strong></td>
<td>5.07</td>
<td>134</td>
<td>10</td>
<td>8</td>
<td>6</td>
<td>6</td>
<td>5</td>
<td>5</td>
<td>4</td>
<td>4</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td><strong>Machinery cost/acre</strong></td>
<td>175.10</td>
<td>134</td>
<td>316</td>
<td>245</td>
<td>223</td>
<td>200</td>
<td>184</td>
<td>162</td>
<td>152</td>
<td>131</td>
<td>112</td>
<td>86</td>
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<tr>
<td><strong>Est. labor hours/acre</strong></td>
<td>4.46</td>
<td>134</td>
<td>8</td>
<td>7</td>
<td>6</td>
<td>6</td>
<td>5</td>
<td>4</td>
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</table>
### Organic Corn Summary by Year for MN-WI Farms, 2020-2021

<table>
<thead>
<tr>
<th>Organic corn summary by year</th>
<th>MN-WI 2020</th>
<th>MN-WI 2021</th>
<th>MN-WI 2020–2021</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Year</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2020</td>
<td>2021</td>
<td>2020–2021</td>
</tr>
<tr>
<td><strong>Number of farms</strong></td>
<td>53</td>
<td>48</td>
<td>101</td>
</tr>
<tr>
<td><strong>Acres</strong></td>
<td>103.40</td>
<td>96.08</td>
<td>99.92</td>
</tr>
<tr>
<td><strong>Yield (bu/acre)</strong></td>
<td>132.23</td>
<td>154.26</td>
<td>142.30</td>
</tr>
<tr>
<td><strong>Operators share of yield (%)</strong></td>
<td>98.63</td>
<td>98.37</td>
<td>98.50</td>
</tr>
<tr>
<td><strong>Value ($/bu)</strong></td>
<td>7.44</td>
<td>9.51</td>
<td>8.46</td>
</tr>
<tr>
<td><strong>Other product return ($/acre)</strong></td>
<td>3.34</td>
<td>6.24</td>
<td>4.66</td>
</tr>
<tr>
<td><strong>Total product return ($/acre)</strong></td>
<td>973.19</td>
<td>1,448.77</td>
<td>1,190.51</td>
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<tr>
<td><strong>Crop insurance ($/acre)</strong></td>
<td>68.20</td>
<td>28.78</td>
<td>50.19</td>
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<tr>
<td><strong>Other crop income ($/acre)</strong></td>
<td>43.07</td>
<td>2.65</td>
<td>24.59</td>
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<tr>
<td><strong>Gross return ($/acre)</strong></td>
<td>1,084.46</td>
<td>1,480.19</td>
<td>1,265.30</td>
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</table>

### Direct expenses ($/acre)

<table>
<thead>
<tr>
<th>Item</th>
<th>MN-WI 2020</th>
<th>MN-WI 2021</th>
<th>MN-WI 2020–2021</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Seed</strong></td>
<td>86.81</td>
<td>90.06</td>
<td>88.30</td>
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<tr>
<td><strong>Fertilizer</strong></td>
<td>131.47</td>
<td>167.97</td>
<td>148.15</td>
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<tr>
<td><strong>Non-chemical crop protect</strong></td>
<td>11.18</td>
<td>13.35</td>
<td>12.17</td>
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<tr>
<td><strong>Cover crop expense</strong></td>
<td>2.31</td>
<td>-</td>
<td>1.26</td>
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<tr>
<td><strong>Crop insurance</strong></td>
<td>19.50</td>
<td>21.75</td>
<td>20.53</td>
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<tr>
<td><strong>Drying expense</strong></td>
<td>7.05</td>
<td>11.44</td>
<td>9.06</td>
</tr>
<tr>
<td><strong>Storage</strong></td>
<td>0.34</td>
<td>0.75</td>
<td>0.53</td>
</tr>
<tr>
<td><strong>Packaging and supplies</strong></td>
<td>0.12</td>
<td>0.70</td>
<td>0.38</td>
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<tr>
<td><strong>Fuel &amp; oil</strong></td>
<td>33.36</td>
<td>40.51</td>
<td>36.63</td>
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<td><strong>Repairs</strong></td>
<td>49.59</td>
<td>56.76</td>
<td>52.87</td>
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<td><strong>Custom hire</strong></td>
<td>24.24</td>
<td>28.73</td>
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<td><strong>Hired labor</strong></td>
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<td>8.69</td>
<td>8.72</td>
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<td><strong>Land rent</strong></td>
<td>149.80</td>
<td>112.45</td>
<td>132.73</td>
</tr>
<tr>
<td><strong>Machinery leases</strong></td>
<td>7.32</td>
<td>10.04</td>
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<td><strong>Utilities</strong></td>
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<td>2.38</td>
<td>2.40</td>
</tr>
<tr>
<td><strong>Hauling and Trucking</strong></td>
<td>4.97</td>
<td>11.18</td>
<td>7.80</td>
</tr>
<tr>
<td><strong>Organic certification</strong></td>
<td>4.17</td>
<td>4.65</td>
<td>4.39</td>
</tr>
<tr>
<td><strong>Operating interest</strong></td>
<td>12.17</td>
<td>5.17</td>
<td>8.97</td>
</tr>
<tr>
<td><strong>Miscellaneous</strong></td>
<td>2.89</td>
<td>2.79</td>
<td>2.84</td>
</tr>
<tr>
<td><strong>Total direct expenses</strong></td>
<td>558.46</td>
<td>589.40</td>
<td>572.60</td>
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<tr>
<td><strong>Return over direct expenses</strong></td>
<td>526.00</td>
<td>890.79</td>
<td>692.70</td>
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</table>

1/ Represents farms with certified organic acres.
<table>
<thead>
<tr>
<th>Organic corn summary by year - Continued</th>
<th>MN-WI</th>
<th>MN-WI</th>
<th>MN-WI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year</td>
<td>2020</td>
<td>2021</td>
<td>2020–2021¹</td>
</tr>
<tr>
<td>Number of farms²</td>
<td>53</td>
<td>48</td>
<td>101</td>
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<tr>
<td><strong>Overhead expenses ($/acre)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hired labor</td>
<td>10.50</td>
<td>14.00</td>
<td>12.10</td>
</tr>
<tr>
<td>Machinery leases</td>
<td>3.82</td>
<td>3.14</td>
<td>3.51</td>
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<tr>
<td>Building leases</td>
<td>0.76</td>
<td>0.58</td>
<td>0.68</td>
</tr>
<tr>
<td>RE &amp; personal property taxes</td>
<td>5.62</td>
<td>10.06</td>
<td>7.65</td>
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<tr>
<td>Farm insurance</td>
<td>9.62</td>
<td>9.45</td>
<td>9.54</td>
</tr>
<tr>
<td>Utilities</td>
<td>3.62</td>
<td>3.27</td>
<td>3.46</td>
</tr>
<tr>
<td>Dues &amp; professional fees</td>
<td>5.33</td>
<td>5.89</td>
<td>5.58</td>
</tr>
<tr>
<td>Interest</td>
<td>24.27</td>
<td>42.48</td>
<td>32.59</td>
</tr>
<tr>
<td>Machinery &amp; building depreciation</td>
<td>45.94</td>
<td>38.34</td>
<td>42.46</td>
</tr>
<tr>
<td>Misc.</td>
<td>9.15</td>
<td>8.12</td>
<td>8.68</td>
</tr>
<tr>
<td>Total overhead expenses</td>
<td>118.62</td>
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<td>126.25</td>
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<tr>
<td>Total direct &amp; overhead expenses</td>
<td>677.08</td>
<td>724.71</td>
<td>698.85</td>
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<tr>
<td><strong>Net return</strong></td>
<td>407.38</td>
<td>755.48</td>
<td>566.45</td>
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<td>Government payments</td>
<td>29.04</td>
<td>0.09</td>
<td>15.81</td>
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<tr>
<td>Net return w/gov. payments</td>
<td>436.42</td>
<td>755.56</td>
<td>582.26</td>
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<tr>
<td>Labor &amp; management charge</td>
<td>79.60</td>
<td>90.32</td>
<td>84.50</td>
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<tr>
<td>Net return over labor &amp; mgt.</td>
<td>356.83</td>
<td>665.25</td>
<td>497.77</td>
</tr>
<tr>
<td><strong>Cost of production ($/bu)</strong></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Total direct expenses</td>
<td>4.28</td>
<td>3.88</td>
<td>4.09</td>
</tr>
<tr>
<td>Total dir. &amp; ovhd. exp.</td>
<td>5.19</td>
<td>4.78</td>
<td>4.99</td>
</tr>
<tr>
<td>Less govt &amp; other income</td>
<td>4.09</td>
<td>4.53</td>
<td>4.31</td>
</tr>
<tr>
<td>With labor &amp; management</td>
<td>4.70</td>
<td>5.12</td>
<td>4.91</td>
</tr>
<tr>
<td>Net value per unit</td>
<td>7.44</td>
<td>9.51</td>
<td>8.46</td>
</tr>
<tr>
<td>Machinery cost ($/acre)</td>
<td>164.85</td>
<td>177.63</td>
<td>170.69</td>
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<tr>
<td>Est. labor hours (#/acre)</td>
<td>4.58</td>
<td>4.61</td>
<td>4.59</td>
</tr>
</tbody>
</table>

¹ Represents farms with certified organic acres.
## Organic Corn Summary by Enterprise Size for MN-WI Farms, 2020-2021

<table>
<thead>
<tr>
<th>Year</th>
<th>MN-WI All</th>
<th>MN-WI &lt; 50 acres</th>
<th>MN-WI 51-100 acres</th>
<th>MN-WI 101-250 acres</th>
<th>MN-WI 251-500 acres</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of farms¹</td>
<td>101</td>
<td>36</td>
<td>31</td>
<td>25</td>
<td>7</td>
</tr>
<tr>
<td>Acres</td>
<td>99.92</td>
<td>31.09</td>
<td>70.03</td>
<td>135.81</td>
<td>323.50</td>
</tr>
<tr>
<td>Yield per acre (bu.)</td>
<td>142.30</td>
<td>121.54</td>
<td>133.87</td>
<td>132.88</td>
<td>157.75</td>
</tr>
<tr>
<td>Operators share of yield %</td>
<td>98.50</td>
<td>100.00</td>
<td>92.59</td>
<td>100.00</td>
<td>100.00</td>
</tr>
<tr>
<td>Value per bu. ($)</td>
<td>8.46</td>
<td>8.27</td>
<td>8.41</td>
<td>8.24</td>
<td>8.49</td>
</tr>
<tr>
<td>Other product return/acre ($)</td>
<td>4.66</td>
<td>8.80</td>
<td>10.24</td>
<td>4.42</td>
<td>-</td>
</tr>
<tr>
<td>Total product return/acre ($)</td>
<td>1,190.51</td>
<td>1,014.26</td>
<td>1,052.97</td>
<td>1,099.55</td>
<td>1,338.89</td>
</tr>
<tr>
<td>Crop insurance/acre ($)</td>
<td>50.19</td>
<td>57.16</td>
<td>7.90</td>
<td>96.18</td>
<td>43.64</td>
</tr>
<tr>
<td>Other crop income/acre ($)</td>
<td>24.59</td>
<td>19.32</td>
<td>23.14</td>
<td>19.94</td>
<td>47.98</td>
</tr>
<tr>
<td>Gross return/acre ($)</td>
<td>1,265.30</td>
<td>1,090.74</td>
<td>1,084.01</td>
<td>1,215.67</td>
<td>1,430.52</td>
</tr>
</tbody>
</table>

### Direct expenses ($/acre)

- **Seed**: 88.30, 102.33, 94.38, 82.73, 91.08
- **Fertilizer**: 148.15, 87.25, 113.94, 151.34, 189.21
- **Non-chemical crop protect**: 12.17, 5.72, 12.22, 4.85, 24.00
- **Cover crop expense**: 1.26, -, 0.54, 1.92, 2.21
- **Crop insurance**: 20.53, 20.26, 19.45, 23.35, 21.88
- **Drying expense**: 9.06, 12.14, 8.71, 7.16, 13.61
- **Storage**: 0.53, 2.48, 0.93, 0.16, -
- **Fuel & oil**: 36.63, 48.21, 36.48, 30.50, 43.85
- **Repairs**: 52.87, 55.26, 57.44, 61.05, 54.27
- **Custom hire**: 26.30, 22.64, 31.68, 25.27, 22.29
- **Hired labor**: 8.72, 2.24, 11.78, 15.12, 3.78
- **Land rent**: 132.73, 64.50, 87.97, 121.74, 161.92
- **Machinery leases**: 8.57, 5.25, 3.86, 14.16, 1.04
- **Utilities**: 2.40, 8.05, 4.31, 1.73, -
- **Hauling and trucking**: 7.80, 12.22, 3.36, 5.87, 12.21
- **Marketing**: 0.32, 1.15, 0.70, 0.12, -
- **Organic certification**: 4.39, 7.99, 5.80, 3.85, 3.01
- **Operating interest**: 8.97, 10.33, 8.43, 8.97, 11.78
- **Miscellaneous**: 2.90, 7.46, 2.60, 3.70, 1.22

### Total direct expenses

- 572.60, 475.48, 504.58, 563.59, 659.38

### Return over direct exp.

- 692.70, 615.26, 579.43, 652.08, 773.13

---

¹ Represents farms with certified organic acres.
### Corn summary by enterprise size - Continued

<table>
<thead>
<tr>
<th>Year</th>
<th>MN-WI</th>
<th>MN-WI</th>
<th>MN-WI</th>
<th>MN-WI</th>
<th>MN-WI</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>All</td>
<td>&lt; 50 acres</td>
<td>51-100 acres</td>
<td>101-250 acres</td>
<td>251-500 acres</td>
</tr>
<tr>
<td><strong>Number of farms</strong></td>
<td>101</td>
<td>36</td>
<td>31</td>
<td>25</td>
<td>7</td>
</tr>
<tr>
<td><strong>Overhead expenses ($/acre)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hired labor</td>
<td>12.10</td>
<td>9.70</td>
<td>2.49</td>
<td>2.28</td>
<td>43.31</td>
</tr>
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<td>0.02</td>
<td>11.92</td>
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<tr>
<td>Building leases</td>
<td>0.68</td>
<td>1.17</td>
<td>1.29</td>
<td>0.80</td>
<td>-</td>
</tr>
<tr>
<td>RE &amp; pers. property taxes</td>
<td>7.65</td>
<td>13.79</td>
<td>8.65</td>
<td>7.31</td>
<td>8.03</td>
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<tr>
<td>Farm insurance</td>
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<td>19.49</td>
<td>7.38</td>
<td>6.39</td>
<td>13.90</td>
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<td>7.41</td>
<td>3.69</td>
<td>2.20</td>
<td>4.53</td>
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<tr>
<td>Dues &amp; professional fees</td>
<td>5.58</td>
<td>10.32</td>
<td>5.25</td>
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<td>3.33</td>
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<td>Interest</td>
<td>32.59</td>
<td>50.56</td>
<td>42.00</td>
<td>40.84</td>
<td>16.07</td>
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<td>Mach &amp; bldg depreciation</td>
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<td>42.10</td>
<td>50.15</td>
<td>44.84</td>
<td>46.49</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>8.68</td>
<td>17.43</td>
<td>9.64</td>
<td>7.92</td>
<td>7.32</td>
</tr>
<tr>
<td>Total overhead expenses/acre</td>
<td>126.25</td>
<td>171.99</td>
<td>142.45</td>
<td>122.90</td>
<td>143.08</td>
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<td>Total dir &amp; ovhd expenses/acre</td>
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<td>647.46</td>
<td>647.03</td>
<td>686.49</td>
<td>800.05</td>
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<td><strong>Net return per acre</strong></td>
<td>566.45</td>
<td>443.27</td>
<td>436.98</td>
<td>529.18</td>
<td>630.05</td>
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<td>Government payments</td>
<td>15.81</td>
<td>12.68</td>
<td>10.94</td>
<td>10.98</td>
<td>27.95</td>
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<td>Net return with govt pmts</td>
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<td>455.96</td>
<td>447.91</td>
<td>540.16</td>
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<td>94.97</td>
<td>73.19</td>
<td>75.76</td>
<td>110.00</td>
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<td><strong>Net return over lbr &amp; mgt</strong></td>
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<td>360.99</td>
<td>374.72</td>
<td>464.40</td>
<td>548.00</td>
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<td><strong>Cost of production ($/bu)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total direct expense</td>
<td>4.09</td>
<td>3.91</td>
<td>4.07</td>
<td>4.24</td>
<td>4.17</td>
</tr>
<tr>
<td>Total dir &amp; ovhd expense</td>
<td>4.99</td>
<td>5.33</td>
<td>5.22</td>
<td>5.17</td>
<td>5.07</td>
</tr>
<tr>
<td>Less govt &amp; other income</td>
<td>4.31</td>
<td>4.52</td>
<td>4.80</td>
<td>4.18</td>
<td>4.32</td>
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<tr>
<td>With labor &amp; management</td>
<td>4.91</td>
<td>5.30</td>
<td>5.39</td>
<td>4.75</td>
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<td>Net value per unit</td>
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<td>8.27</td>
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<td>8.24</td>
<td>8.49</td>
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1/ Represents farms with certified organic acres.
## CORN SILAGE

### Organic Corn Silage Benchmark Report for MN-WI Farms, 2020-2021

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# Organic Corn Silage Summary by Year for MN-WI Farms, 2020-2021

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1/ Represents farms with certified organic acres.
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<td>Total direct &amp; overhead expenses</td>
<td>655.44</td>
<td>617.16</td>
<td>633.45</td>
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<tr>
<td><strong>Net return</strong></td>
<td>433.54</td>
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<td>481.77</td>
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<tr>
<td>Government payments</td>
<td>36.36</td>
<td>1.17</td>
<td>16.14</td>
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<tr>
<td>Net return w/gov. payments</td>
<td>469.90</td>
<td>518.64</td>
<td>497.91</td>
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<tr>
<td>Labor &amp; management charge</td>
<td>90.59</td>
<td>68.13</td>
<td>77.68</td>
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<tr>
<td>Net return over labor &amp; mgt.</td>
<td>379.31</td>
<td>450.52</td>
<td>420.23</td>
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<tr>
<td><strong>Cost of production ($/bu)</strong></td>
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<tr>
<td>Total direct expenses</td>
<td>42.17</td>
<td>37.83</td>
<td>39.62</td>
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<tr>
<td>Total dir. &amp; ovhd. expenses</td>
<td>36.73</td>
<td>35.26</td>
<td>35.87</td>
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<tr>
<td>With labor &amp; management charge</td>
<td>42.56</td>
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<td>40.72</td>
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<tr>
<td>Net value per unit</td>
<td>66.96</td>
<td>67.04</td>
<td>67.01</td>
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<tr>
<td>Machinery cost ($/acre)</td>
<td>263.90</td>
<td>258.13</td>
<td>260.59</td>
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<tr>
<td>Est. labor hours (#/acre)</td>
<td>4.94</td>
<td>4.93</td>
<td>4.94</td>
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</table>

1/ Represents farms with certified organic acres.
### Organic Corn Silage Summary by Enterprise Size for MN-WI Farms, 2020-2021

<table>
<thead>
<tr>
<th>Year</th>
<th>MN-WI</th>
<th>MN-WI</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>All</td>
<td>&lt; 50 acres</td>
<td>51-100 acres</td>
<td>101-250 acres</td>
<td>251-500 acres</td>
</tr>
<tr>
<td><strong>Number of farms</strong></td>
<td>52</td>
<td>38</td>
<td>12</td>
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<tr>
<td><strong>Acres</strong></td>
<td>45.51</td>
<td>26.93</td>
<td>71.93</td>
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<tr>
<td><strong>Yield per acre (ton)</strong></td>
<td>15.99</td>
<td>15.92</td>
<td>16.06</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>
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<td>na</td>
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<tr>
<td><strong>Value per ton ($)</strong></td>
<td>67.01</td>
<td>71.12</td>
<td>66.06</td>
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<tr>
<td><strong>Total product return/acre ($)</strong></td>
<td>1,071.32</td>
<td>1,132.57</td>
<td>1,060.62</td>
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<tr>
<td><strong>Crop insurance/acre ($)</strong></td>
<td>24.58</td>
<td>43.20</td>
<td>16.19</td>
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<tr>
<td><strong>Other crop income/acre ($)</strong></td>
<td>19.31</td>
<td>12.36</td>
<td>18.11</td>
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<tr>
<td><strong>Gross return/acre ($)</strong></td>
<td>1,115.22</td>
<td>1,188.13</td>
<td>1,094.92</td>
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</table>

### Direct expenses ($/acre)

<table>
<thead>
<tr>
<th>Item</th>
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<th>MN-WI</th>
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<tbody>
<tr>
<td>Seed</td>
<td>94.49</td>
<td>86.96</td>
<td>100.22</td>
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<td>Fertilizer</td>
<td>72.27</td>
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<td>81.87</td>
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<td>Non-chemical crop protect</td>
<td>1.08</td>
<td>1.63</td>
<td>1.04</td>
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<tr>
<td>Cover crop expense</td>
<td>-</td>
<td>-</td>
<td>-</td>
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<td>na</td>
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<tr>
<td>Crop insurance</td>
<td>12.70</td>
<td>15.56</td>
<td>9.85</td>
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<tr>
<td>Drying expense</td>
<td>0.64</td>
<td>-</td>
<td>1.77</td>
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<td>na</td>
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<tr>
<td>Storage</td>
<td>17.92</td>
<td>19.03</td>
<td>24.30</td>
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<tr>
<td>Fuel &amp; oil</td>
<td>38.30</td>
<td>34.01</td>
<td>39.58</td>
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<tr>
<td>Repairs</td>
<td>83.02</td>
<td>66.34</td>
<td>80.75</td>
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<tr>
<td>Custom hire</td>
<td>53.58</td>
<td>68.81</td>
<td>48.29</td>
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<tr>
<td>Hired labor</td>
<td>14.52</td>
<td>8.16</td>
<td>5.75</td>
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<tr>
<td>Land rent</td>
<td>62.78</td>
<td>50.42</td>
<td>5.75</td>
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<td>Machinery leases</td>
<td>2.98</td>
<td>3.99</td>
<td>3.43</td>
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<tr>
<td>Utilities</td>
<td>1.09</td>
<td>1.00</td>
<td>0.43</td>
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<td>Hauling and trucking</td>
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<td>0.25</td>
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<td>Marketing</td>
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<tr>
<td>Organic certification</td>
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<td>Operating interest</td>
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<td>1.90</td>
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<td>Miscellaneous</td>
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<td>2.38</td>
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<tr>
<td><strong>Total direct expenses</strong></td>
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<td><strong>458.44</strong></td>
<td><strong>505.05</strong></td>
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<td><strong>Return over direct expenses</strong></td>
<td><strong>642.58</strong></td>
<td><strong>729.69</strong></td>
<td><strong>589.87</strong></td>
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## Corn Silage Summary by Enterprise Size - Continued

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<td></td>
<td>All</td>
<td>&lt; 50 acres</td>
<td>51-100 acres</td>
<td>101-250 acres</td>
<td>251-500 acres</td>
</tr>
<tr>
<td>Number of farms</td>
<td>52</td>
<td>38</td>
<td>12</td>
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### Overhead Expenses ($/acre)

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<th></th>
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<tbody>
<tr>
<td>Hired labor</td>
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<td>9.06</td>
<td>8.02</td>
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<tr>
<td>Machinery leases</td>
<td>0.80</td>
<td>1.86</td>
<td>-</td>
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<td>na</td>
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<tr>
<td>RE &amp; pers. property taxes</td>
<td>8.99</td>
<td>11.94</td>
<td>8.01</td>
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<tr>
<td>Farm insurance</td>
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<td>10.00</td>
<td>8.87</td>
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<tr>
<td>Utilities</td>
<td>3.80</td>
<td>6.46</td>
<td>2.76</td>
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<td>Dues &amp; professional fees</td>
<td>3.11</td>
<td>4.01</td>
<td>3.55</td>
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<td>Interest</td>
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<td>38.78</td>
<td>23.39</td>
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<tr>
<td>Mach &amp; bldg depreciation</td>
<td>73.20</td>
<td>58.70</td>
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<td>na</td>
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<td></td>
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<tr>
<td>Miscellaneous</td>
<td>8.10</td>
<td>14.21</td>
<td>2.91</td>
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<td></td>
<td></td>
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</tr>
<tr>
<td>Total overhead expenses/acre</td>
<td>160.81</td>
<td>155.01</td>
<td>120.60</td>
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<td>na</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total dir &amp; ovhd expenses/acre</td>
<td>633.45</td>
<td>613.45</td>
<td>625.66</td>
<td>na</td>
<td>na</td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Net return per acre</td>
<td>481.77</td>
<td>574.68</td>
<td>469.26</td>
<td>na</td>
<td>na</td>
<td></td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>Net return with govt pmts</td>
<td>497.91</td>
<td>591.30</td>
<td>485.39</td>
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<td>na</td>
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</tr>
<tr>
<td>Labor &amp; management charge</td>
<td>77.68</td>
<td>82.36</td>
<td>94.25</td>
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<td>na</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Net return over lbr &amp; mgt</td>
<td>420.23</td>
<td>508.94</td>
<td>391.14</td>
<td>na</td>
<td>na</td>
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</table>

### Cost of Production ($/ton)

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<th></th>
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<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total direct expense/ton</td>
<td>29.56</td>
<td>28.79</td>
<td>31.46</td>
<td>na</td>
<td>na</td>
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<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Total direct &amp; ovhd expense/ton</td>
<td>39.62</td>
<td>38.52</td>
<td>38.97</td>
<td>na</td>
<td>na</td>
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<td></td>
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<tr>
<td>Less govt &amp; other income</td>
<td>35.87</td>
<td>33.99</td>
<td>35.83</td>
<td>na</td>
<td>na</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>With labor &amp; management</td>
<td>40.72</td>
<td>39.16</td>
<td>41.70</td>
<td>na</td>
<td>na</td>
<td></td>
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</table>

### Net Value Per Unit

<table>
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<tr>
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<tbody>
<tr>
<td>Net value per unit</td>
<td>67.01</td>
<td>71.12</td>
<td>66.06</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Machinery cost (/acre)</td>
<td>260.59</td>
<td>237.36</td>
<td>238.23</td>
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<td>na</td>
<td></td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>Est. labor hours (/acre)</td>
<td>4.94</td>
<td>5.61</td>
<td>4.45</td>
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<td>na</td>
<td></td>
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1/ Represents farms with certified organic acres.
## Organic Soybean Benchmark Report for MN-WI Farms, 2020-2021

<table>
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<tr>
<th></th>
<th>Median</th>
<th>#</th>
<th>10%</th>
<th>20%</th>
<th>30%</th>
<th>40%</th>
<th>50%</th>
<th>60%</th>
<th>70%</th>
<th>80%</th>
<th>90%</th>
<th>100%</th>
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</thead>
<tbody>
<tr>
<td><strong>Yield (bu/acre)</strong></td>
<td>34.32</td>
<td>60</td>
<td>14</td>
<td>21</td>
<td>25</td>
<td>30</td>
<td>34</td>
<td>39</td>
<td>43</td>
<td>48</td>
<td>56</td>
<td></td>
</tr>
<tr>
<td><strong>Value ($/bu)</strong></td>
<td>23.50</td>
<td>60</td>
<td>18</td>
<td>19</td>
<td>19</td>
<td>20</td>
<td>22</td>
<td>24</td>
<td>29</td>
<td>30</td>
<td>32</td>
<td>34</td>
</tr>
<tr>
<td><strong>Total value</strong></td>
<td>847.95</td>
<td>60</td>
<td>277</td>
<td>450</td>
<td>560</td>
<td>663</td>
<td>779</td>
<td>880</td>
<td>994</td>
<td>1145</td>
<td>1211</td>
<td>1441</td>
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<tr>
<td><strong>Other income</strong></td>
<td>32.59</td>
<td>32</td>
<td>8</td>
<td>11</td>
<td>15</td>
<td>20</td>
<td>28</td>
<td>41</td>
<td>49</td>
<td>86</td>
<td>135</td>
<td>135</td>
</tr>
<tr>
<td><strong>Gross return</strong></td>
<td>951.75</td>
<td>60</td>
<td>356</td>
<td>504</td>
<td>617</td>
<td>699</td>
<td>850</td>
<td>976</td>
<td>1062</td>
<td>1186</td>
<td>1278</td>
<td>1441</td>
</tr>
</tbody>
</table>

### Direct return ($/acre)
- Seed: 53.45
- Crop insurance: 18.93
- Fuel & oil: 20.68
- Repairs: 30.01
- Custom hire: 37.99
- Land rent: 186.02
- Organic certification: 2.94
- Operating interest: 3.94
- Total direct expenses: 369.09

### Return over dir. Exp.
- 519.34

### Overhead expenses ($/acre)
- Farm insurance: 6.04
- Utilities: 3.46
- Dues & prof. fees: 4.20
- Interest on term debt: 7.20
- Machinery depreciation: 28.66
- Building depreciation: 3.36
- Misc.: 2.64
- Total overhead exp.: 71.48
- Total dir. & ovhd. exp.: 469.96

### Net return
- 391.48

### Gov't. payments
- 0.13

### Net ret. w/gov't pymts
- 415.24

### Labor & mgmt.
- 50.45

### Net return over lbr & mgmt.
- 371.31

### Direct cost prod./unit
- 12.94

### Dir. & ovhd. cost prod./unit
- 15.58

### COP less gov’t & other income
- 12.51

### Cost of prod. w/lbr&mgmt.
- 13.97

### Machinery cost/acre
- 139.43

### Est. labor hours/acre
- 2.68
# Organic Soybean Summary by Year for MN-WI Farms, 2020-2021

<table>
<thead>
<tr>
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<th>MN-WI 2020</th>
<th>MN-WI 2021</th>
<th>MN-WI 2020–2021¹</th>
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<tr>
<td><strong>Year</strong></td>
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<td>2021</td>
<td>2020–2021¹</td>
</tr>
<tr>
<td><strong>Number of farms</strong>¹</td>
<td>23</td>
<td>25</td>
<td>48</td>
</tr>
<tr>
<td><strong>Acres</strong></td>
<td>103.87</td>
<td>114.97</td>
<td>109.65</td>
</tr>
<tr>
<td><strong>Yield (bu/acre)</strong></td>
<td>32.93</td>
<td>34.93</td>
<td>34.02</td>
</tr>
<tr>
<td><strong>Operators share of yield (%)</strong></td>
<td>98.71</td>
<td>98.31</td>
<td>98.48</td>
</tr>
<tr>
<td><strong>Value ($/bu)</strong></td>
<td>20.29</td>
<td>29.62</td>
<td>25.52</td>
</tr>
<tr>
<td><strong>Total product return ($/acre)</strong></td>
<td>659.66</td>
<td>1,017.16</td>
<td>854.89</td>
</tr>
<tr>
<td><strong>Crop insurance ($/acre)</strong></td>
<td>54.65</td>
<td>16.35</td>
<td>33.73</td>
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<tr>
<td><strong>Other crop income ($/acre)</strong></td>
<td>44.76</td>
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<td>21.05</td>
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<tr>
<td><strong>Gross return ($/acre)</strong></td>
<td>759.08</td>
<td>1,034.85</td>
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**Direct expenses ($/acre)**

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<th>Expense</th>
<th>MN-WI 2020</th>
<th>MN-WI 2021</th>
<th>MN-WI 2020–2021¹</th>
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<td><strong>Seed</strong></td>
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<td>22.81</td>
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<tr>
<td><strong>Non-chemical crop protect</strong></td>
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<td><strong>Cover crop expense</strong></td>
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<td><strong>Crop insurance</strong></td>
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<td>22.92</td>
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<tr>
<td><strong>Fuel &amp; oil</strong></td>
<td>21.97</td>
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</tr>
<tr>
<td><strong>Repairs</strong></td>
<td>39.61</td>
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<td>40.75</td>
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<td><strong>Custom hire</strong></td>
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<td>31.87</td>
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<td><strong>Utilities</strong></td>
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<td>6.84</td>
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<td>5.66</td>
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<td><strong>Miscellaneous</strong></td>
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<td><strong>Total direct expenses</strong></td>
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<td><strong>Return over direct expenses</strong></td>
<td>395.95</td>
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<td>517.81</td>
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¹ Represents farms with certified organic acres.
## Soybean summary by year - Continued

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<th>MN-WI</th>
<th>MN-WI</th>
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<td></td>
</tr>
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<tr>
<td></td>
<td>23</td>
<td>25</td>
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<tr>
<td><strong>Overhead expenses ($/acre)</strong></td>
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<td></td>
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<tr>
<td>Hired labor</td>
<td>12.35</td>
<td>6.96</td>
<td>9.41</td>
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<td>4.85</td>
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<td>5.41</td>
<td>5.89</td>
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<tr>
<td>Utilities</td>
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<td>3.59</td>
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<tr>
<td>Dues &amp; professional fees</td>
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<tr>
<td>Interest</td>
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<td>8.48</td>
<td>16.18</td>
</tr>
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<td>Misc.</td>
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<td>83.55</td>
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<td>Total direct &amp; overhead expenses</td>
<td>464.95</td>
<td>484.11</td>
<td>475.41</td>
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<td>10.01</td>
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<td>444.27</td>
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<td>Labor &amp; management charge</td>
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<td>61.85</td>
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<tr>
<td>Net return over labor &amp; mgt.</td>
<td>253.86</td>
<td>489.28</td>
<td>382.42</td>
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</table>

## Cost of production ($/bu)

<table>
<thead>
<tr>
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<th>MN-WI</th>
<th>MN-WI</th>
<th>MN-WI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total direct expense</td>
<td>11.17</td>
<td>12.11</td>
<td>11.70</td>
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<tr>
<td>Total dir &amp; ovhd exp</td>
<td>14.30</td>
<td>14.10</td>
<td>14.19</td>
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<tr>
<td>Less govt &amp; other income</td>
<td>10.64</td>
<td>13.53</td>
<td>12.26</td>
</tr>
<tr>
<td>With labor &amp; management</td>
<td>12.48</td>
<td>15.37</td>
<td>14.10</td>
</tr>
<tr>
<td>Net value per unit</td>
<td>20.29</td>
<td>29.62</td>
<td>25.52</td>
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<tr>
<td>Machinery cost ($/acre)</td>
<td>123.65</td>
<td>144.06</td>
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<tr>
<td>Est. labor hours (#/acre)</td>
<td>2.97</td>
<td>2.84</td>
<td>2.90</td>
</tr>
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</table>

¹ Represents farms with certified organic acres.
## Organic Soybean Summary by Enterprise Size for MN-WI Farms, 2020-2021

<table>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Number of farms</strong>†</td>
<td>48</td>
<td>19</td>
<td>9</td>
<td>15</td>
<td>5</td>
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<tr>
<td><strong>Acres</strong></td>
<td>109.65</td>
<td>33.87</td>
<td>83.91</td>
<td>167.63</td>
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<td><strong>Yield per acre (bu.)</strong></td>
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<td><strong>Operators share of yield %</strong></td>
<td>98.48</td>
<td>98.17</td>
<td>91.54</td>
<td>100.00</td>
<td>100.00</td>
</tr>
<tr>
<td><strong>Value per bu. ($)</strong></td>
<td>25.52</td>
<td>23.98</td>
<td>25.81</td>
<td>26.28</td>
<td>24.83</td>
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<tr>
<td><strong>Total product return/acre ($)</strong></td>
<td>854.89</td>
<td>852.48</td>
<td>846.96</td>
<td>836.89</td>
<td>894.01</td>
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<td>37.21</td>
<td>35.31</td>
<td>20.02</td>
<td>56.73</td>
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<tr>
<td><strong>Other crop income/acre ($)</strong></td>
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<td>38.77</td>
<td>7.55</td>
<td>11.64</td>
<td>37.68</td>
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<td>928.46</td>
<td>889.82</td>
<td>868.55</td>
<td>988.42</td>
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<td>Seed</td>
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<td>18.34</td>
<td>59.14</td>
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<td>-</td>
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<td>35.93</td>
<td>19.11</td>
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<td>Storage</td>
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<td>Fuel &amp; oil</td>
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<td>18.39</td>
<td>21.73</td>
<td>27.16</td>
<td>24.06</td>
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<td>Repairs</td>
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<td>37.57</td>
<td>51.62</td>
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<td>Custom hire</td>
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<td>46.17</td>
<td>43.73</td>
<td>24.77</td>
<td>31.65</td>
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<td>Hired labor</td>
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<td>29.00</td>
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<td>94.26</td>
<td>137.24</td>
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<td>-</td>
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<td>2.89</td>
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<td>Hauling and trucking</td>
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<td>-</td>
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<td>4.44</td>
<td>5.67</td>
<td>6.38</td>
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<td>Miscellaneous</td>
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<td>6.28</td>
<td>3.35</td>
<td>2.89</td>
<td>3.15</td>
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<td>392.51</td>
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<td>535.95</td>
<td>516.94</td>
<td>456.79</td>
<td>623.29</td>
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</table>

† Represents farms with certified organic acres.
## Soybean summary by enterprise size - Continued

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<tbody>
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<td>Number of farms</td>
<td>48</td>
<td>19</td>
<td>9</td>
<td>15</td>
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</table>

### Overhead expenses ($/acre)

<table>
<thead>
<tr>
<th>Item</th>
<th>All</th>
<th>&lt; 50 acres</th>
<th>51-100 acres</th>
<th>101-250 acres</th>
<th>251-500 acres</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hired labor</td>
<td>9.41</td>
<td>0.82</td>
<td>1.28</td>
<td>10.02</td>
<td>16.91</td>
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<td>0.07</td>
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<td>0.07</td>
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<td>0.10</td>
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<td>RE &amp; pers. property taxes</td>
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<td>-</td>
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<td>7.68</td>
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<td>Farm insurance</td>
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<td>8.88</td>
<td>4.80</td>
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<td>7.41</td>
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<td>8.73</td>
<td>2.23</td>
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<td>Interest</td>
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<td>7.78</td>
<td>12.67</td>
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<td><strong>Net return per acre</strong></td>
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<td><strong>393.50</strong></td>
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<td><strong>393.58</strong></td>
<td><strong>522.85</strong></td>
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<table>
<thead>
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<th>Item</th>
<th>All</th>
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<th>51-100 acres</th>
<th>101-250 acres</th>
<th>251-500 acres</th>
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<tbody>
<tr>
<td>Government payments</td>
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<td>14.47</td>
<td>7.16</td>
<td>8.98</td>
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<td>Net return with govt pmts</td>
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<td>460.53</td>
<td>400.74</td>
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<td>53.29</td>
<td>75.30</td>
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<td><strong>Net return over lbr &amp; mgt</strong></td>
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<td><strong>347.45</strong></td>
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### Cost of production ($) 

<table>
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<th>51-100 acres</th>
<th>101-250 acres</th>
<th>251-500 acres</th>
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</thead>
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<tr>
<td>Total direct expense/bu</td>
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<td>11.04</td>
<td>11.36</td>
<td>12.93</td>
<td>10.14</td>
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<td>15.05</td>
<td>13.52</td>
<td>14.91</td>
<td>12.93</td>
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<tr>
<td>Less govt &amp; other income</td>
<td>12.26</td>
<td>12.40</td>
<td>11.78</td>
<td>13.69</td>
<td>10.06</td>
</tr>
<tr>
<td>With labor &amp; management</td>
<td>14.10</td>
<td>13.75</td>
<td>14.16</td>
<td>15.37</td>
<td>12.15</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Item</th>
<th>All</th>
<th>&lt; 50 acres</th>
<th>51-100 acres</th>
<th>101-250 acres</th>
<th>251-500 acres</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net value per unit</td>
<td>25.52</td>
<td>23.98</td>
<td>25.81</td>
<td>26.28</td>
<td>24.83</td>
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<tr>
<td>Machinery cost ($/acre)</td>
<td>134.79</td>
<td>146.33</td>
<td>150.91</td>
<td>122.74</td>
<td>142.74</td>
</tr>
<tr>
<td>Est. labor hours (#/acre)</td>
<td>2.90</td>
<td>3.50</td>
<td>2.89</td>
<td>2.73</td>
<td>2.94</td>
</tr>
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1/ Represents farms with certified organic acres.
## Organic Alfalfa Hay Benchmark Report for MN-WI Farms, 2020-2021

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<th></th>
<th>Median</th>
<th>#</th>
<th>10%</th>
<th>20%</th>
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## Organic Alfalfa Hay Summary by Year for MN-WI Farms, 2020-2021

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¹ Represents farms with certified organic acres.
### Alfalfa Hay Summary by Year - MN-WI

#### Continued

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<td>221.69</td>
<td>270.03</td>
</tr>
<tr>
<td>Labor &amp; management charge</td>
<td>79.69</td>
<td>54.06</td>
<td>65.26</td>
</tr>
<tr>
<td>Net return over labor &amp; mgt.</td>
<td>252.58</td>
<td>167.64</td>
<td>204.77</td>
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</tbody>
</table>

#### Cost of Production ($/Ton)

<table>
<thead>
<tr>
<th></th>
<th>2020</th>
<th>2021</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total direct expenses</td>
<td>73.96</td>
<td>74.52</td>
<td>74.30</td>
</tr>
<tr>
<td>Total dir. &amp; ovhd. exp.</td>
<td>108.20</td>
<td>110.40</td>
<td>109.51</td>
</tr>
<tr>
<td>Less govt’ &amp; other income</td>
<td>96.37</td>
<td>108.17</td>
<td>103.36</td>
</tr>
<tr>
<td>With labor &amp; management</td>
<td>119.86</td>
<td>122.28</td>
<td>121.29</td>
</tr>
<tr>
<td>Net value per unit</td>
<td>194.30</td>
<td>166.02</td>
<td>177.54</td>
</tr>
<tr>
<td>Machinery cost ($/acre)</td>
<td>169.92</td>
<td>208.30</td>
<td>191.52</td>
</tr>
<tr>
<td>Est. labor hours (#/acre)</td>
<td>4.37</td>
<td>4.46</td>
<td>4.42</td>
</tr>
</tbody>
</table>

1/ Represents farms with certified organic acres.
Organic Alfalfa Hay Summary by Enterprise Size for MN-WI Farms, 2020-2021

<table>
<thead>
<tr>
<th></th>
<th>MN-WI All</th>
<th>MN-WI &lt; 50 acres</th>
<th>MN-WI 51-100 acres</th>
<th>MN-WI 101-250 acres</th>
<th>MN-WI 251-500 acres</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Year</strong></td>
<td>2020-2021</td>
<td>2020-2021</td>
<td>2020-2021</td>
<td>2020-2021</td>
<td>2020-2021</td>
</tr>
<tr>
<td><strong>Number of farms</strong></td>
<td>1</td>
<td>66</td>
<td>19</td>
<td>13</td>
<td>26</td>
</tr>
<tr>
<td><strong>Acres</strong></td>
<td>129.05</td>
<td>36.81</td>
<td>75.82</td>
<td>151.88</td>
<td>320.50</td>
</tr>
<tr>
<td><strong>Yield per acre (ton)</strong></td>
<td>3.73</td>
<td>3.03</td>
<td>4.38</td>
<td>4.30</td>
<td>2.14</td>
</tr>
<tr>
<td><strong>Operators share of yield %</strong></td>
<td>97.69</td>
<td>100.00</td>
<td>100.00</td>
<td>95.91</td>
<td>99.22</td>
</tr>
<tr>
<td><strong>Value per ton ($)</strong></td>
<td>177.54</td>
<td>174.84</td>
<td>164.74</td>
<td>187.19</td>
<td>177.66</td>
</tr>
<tr>
<td><strong>Total product return/acre ($)</strong></td>
<td>646.32</td>
<td>529.69</td>
<td>721.05</td>
<td>772.73</td>
<td>376.36</td>
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<td><strong>Crop insurance/acre ($)</strong></td>
<td>7.41</td>
<td>13.12</td>
<td>3.29</td>
<td>12.84</td>
<td>-</td>
</tr>
<tr>
<td><strong>Other crop income/acre ($)</strong></td>
<td>9.57</td>
<td>6.30</td>
<td>10.21</td>
<td>7.87</td>
<td>8.43</td>
</tr>
<tr>
<td><strong>Gross return/acre ($)</strong></td>
<td>663.30</td>
<td>549.11</td>
<td>734.56</td>
<td>793.45</td>
<td>384.78</td>
</tr>
<tr>
<td><strong>Direct expenses ($)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Seed</td>
<td>1.80</td>
<td>1.46</td>
<td>3.41</td>
<td>2.78</td>
<td>-</td>
</tr>
<tr>
<td>Fertilizer</td>
<td>32.83</td>
<td>28.93</td>
<td>33.38</td>
<td>35.82</td>
<td>26.23</td>
</tr>
<tr>
<td>Crop insurance</td>
<td>0.90</td>
<td>0.72</td>
<td>0.88</td>
<td>1.59</td>
<td>-</td>
</tr>
<tr>
<td>Storage</td>
<td>0.49</td>
<td>-</td>
<td>4.21</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Packaging and supplies</td>
<td>11.43</td>
<td>7.91</td>
<td>6.23</td>
<td>17.42</td>
<td>5.23</td>
</tr>
<tr>
<td>Fuel &amp; oil</td>
<td>32.94</td>
<td>29.49</td>
<td>42.45</td>
<td>35.40</td>
<td>24.63</td>
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<tr>
<td>Repairs</td>
<td>59.64</td>
<td>55.65</td>
<td>55.34</td>
<td>71.88</td>
<td>40.92</td>
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<tr>
<td>Custom hire</td>
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<td>57.21</td>
<td>42.90</td>
<td>16.59</td>
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<tr>
<td>Hired labor</td>
<td>7.17</td>
<td>0.19</td>
<td>2.03</td>
<td>10.47</td>
<td>-</td>
</tr>
<tr>
<td>Land rent</td>
<td>73.10</td>
<td>57.83</td>
<td>80.34</td>
<td>94.16</td>
<td>43.70</td>
</tr>
<tr>
<td>Machinery leases</td>
<td>4.34</td>
<td>1.39</td>
<td>3.94</td>
<td>3.58</td>
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</tr>
<tr>
<td>Utilities</td>
<td>0.50</td>
<td>-</td>
<td>0.76</td>
<td>0.55</td>
<td>0.18</td>
</tr>
<tr>
<td>Hauling and trucking</td>
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<td>-</td>
<td>-</td>
<td>1.39</td>
<td>-</td>
</tr>
<tr>
<td>Organic certification</td>
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<td>4.77</td>
<td>3.68</td>
<td>2.83</td>
<td>2.02</td>
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<tr>
<td>Operating interest</td>
<td>6.83</td>
<td>16.53</td>
<td>11.95</td>
<td>6.37</td>
<td>3.17</td>
</tr>
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<td>Miscellaneous</td>
<td>2.03</td>
<td>2.81</td>
<td>0.88</td>
<td>1.80</td>
<td>0.50</td>
</tr>
<tr>
<td><strong>Total direct expenses</strong></td>
<td>270.47</td>
<td>231.10</td>
<td>306.69</td>
<td>328.95</td>
<td>171.17</td>
</tr>
<tr>
<td><strong>Return over direct expenses</strong></td>
<td>392.84</td>
<td>318.01</td>
<td>427.86</td>
<td>464.50</td>
<td>213.62</td>
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</table>

1/ Represents farms with certified organic acres.
<table>
<thead>
<tr>
<th>Alfalfa hay summary by enterprise size - Continued</th>
<th>MN-WI</th>
<th>MN-WI</th>
<th>MN-WI</th>
<th>MN-WI</th>
<th>MN-WI</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>All</td>
<td>&lt; 50 acres</td>
<td>51-100 acres</td>
<td>101-250 acres</td>
<td>251-500 acres</td>
</tr>
<tr>
<td>Number of farms¹</td>
<td>66</td>
<td>19</td>
<td>13</td>
<td>26</td>
<td>7</td>
</tr>
<tr>
<td><strong>Overhead expenses ($/acre)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hired labor</td>
<td>13.42</td>
<td>4.71</td>
<td>12.65</td>
<td>10.52</td>
<td>25.40</td>
</tr>
<tr>
<td>Machinery leases</td>
<td>0.58</td>
<td>0.03</td>
<td>0.76</td>
<td>0.87</td>
<td>0.32</td>
</tr>
<tr>
<td>Building leases</td>
<td>0.99</td>
<td>-</td>
<td>2.47</td>
<td>0.93</td>
<td>1.06</td>
</tr>
<tr>
<td>RE &amp; personal property taxes</td>
<td>6.43</td>
<td>9.90</td>
<td>10.13</td>
<td>6.16</td>
<td>4.94</td>
</tr>
<tr>
<td>Farm insurance</td>
<td>10.55</td>
<td>13.90</td>
<td>11.98</td>
<td>9.28</td>
<td>12.93</td>
</tr>
<tr>
<td>Utilities</td>
<td>3.48</td>
<td>10.75</td>
<td>3.17</td>
<td>1.96</td>
<td>5.01</td>
</tr>
<tr>
<td>Dues &amp; professional fees</td>
<td>3.34</td>
<td>6.62</td>
<td>5.20</td>
<td>3.10</td>
<td>2.81</td>
</tr>
<tr>
<td>Interest</td>
<td>23.80</td>
<td>39.26</td>
<td>19.18</td>
<td>24.61</td>
<td>15.88</td>
</tr>
<tr>
<td>Machinery &amp; bldg depreciation</td>
<td>57.22</td>
<td>45.42</td>
<td>71.36</td>
<td>60.00</td>
<td>45.01</td>
</tr>
<tr>
<td>Misc.</td>
<td>8.36</td>
<td>8.75</td>
<td>10.52</td>
<td>12.82</td>
<td>1.08</td>
</tr>
<tr>
<td>Total overhead expenses</td>
<td>128.18</td>
<td>139.35</td>
<td>147.42</td>
<td>130.25</td>
<td>114.44</td>
</tr>
<tr>
<td>Total direct &amp; overhead exp.</td>
<td>398.65</td>
<td>370.45</td>
<td>454.11</td>
<td>459.20</td>
<td>285.60</td>
</tr>
<tr>
<td><strong>Net return</strong></td>
<td>264.65</td>
<td>178.66</td>
<td>280.45</td>
<td>334.25</td>
<td>99.18</td>
</tr>
<tr>
<td>Government payments</td>
<td>5.37</td>
<td>2.98</td>
<td>15.74</td>
<td>6.12</td>
<td>1.78</td>
</tr>
<tr>
<td>Net return w/gov. payments</td>
<td>270.03</td>
<td>181.64</td>
<td>296.19</td>
<td>340.37</td>
<td>100.96</td>
</tr>
<tr>
<td>Labor &amp; management charge</td>
<td>65.26</td>
<td>75.93</td>
<td>53.48</td>
<td>93.08</td>
<td>29.06</td>
</tr>
<tr>
<td>Net return over labor &amp; mgt.</td>
<td>204.77</td>
<td>105.71</td>
<td>242.71</td>
<td>247.29</td>
<td>71.90</td>
</tr>
<tr>
<td><strong>Cost of production ($/ton)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total direct expenses</td>
<td>74.30</td>
<td>76.28</td>
<td>70.07</td>
<td>79.69</td>
<td>80.80</td>
</tr>
<tr>
<td>Total dir. &amp; ovhd. expenses</td>
<td>109.51</td>
<td>122.28</td>
<td>103.75</td>
<td>111.24</td>
<td>134.82</td>
</tr>
<tr>
<td>Less gov’t &amp; other income</td>
<td>103.36</td>
<td>114.88</td>
<td>97.07</td>
<td>104.74</td>
<td>130.00</td>
</tr>
<tr>
<td>With labor &amp; management</td>
<td>121.29</td>
<td>139.95</td>
<td>109.29</td>
<td>127.28</td>
<td>143.72</td>
</tr>
<tr>
<td>Net value per unit</td>
<td>177.54</td>
<td>174.84</td>
<td>164.74</td>
<td>187.19</td>
<td>177.66</td>
</tr>
<tr>
<td>Machinery cost ($/acre)</td>
<td>191.52</td>
<td>160.83</td>
<td>231.35</td>
<td>216.64</td>
<td>136.46</td>
</tr>
<tr>
<td>Est. labor hours (#/acre)</td>
<td>4.42</td>
<td>5.06</td>
<td>4.63</td>
<td>4.91</td>
<td>3.76</td>
</tr>
</tbody>
</table>

¹/ Represents farms with certified organic acres.
LIVESTOCK ENTERPRISE SUMMARY

Dairy farms account for the largest share (65%) of MN-WI organic livestock farms in the FINBIN database. The remaining organic livestock enterprise types, as defined in FINBIN, are “crop & beef” (19%) and “other” (16%) for the two states combined (Fig. 12).

Minnesota and Wisconsin dairy farms are significant producers of organic milk nationwide. Combined, farmers in these two states accounted for 31% of organic dairies and 11% of organic milk produced in 2019 (USDA, 2019 Organic Survey). Wisconsin ranks number four nationally in organic milk production while MN ranks number 12.

USDA National Organic Program standards require livestock farmers and ranchers to “accommodate the health and natural behavior of their animals year-round.” Among other things, this means that certified organic “ruminant livestock must have access to pasture for the entire grazing season (at least 120 days) and ruminant livestock diets must contain at least 30 percent dry matter (on average) from certified organic pasture.” The rest of the animal’s diet must also be certified organic including hay, grain and other agricultural products.

Pasture clearly plays a critical role in organic livestock production. For this reason, pasture enterprise results for 2020-2021 are presented in the next section followed by dairy enterprise results. There were not enough enterprise records to report beef or other livestock enterprises.

The pasture and dairy enterprise summaries report the financial and production information for fully certified organic acreage and livestock that come from total organic and partial organic farms. All expenses are reported in $/acre. Price and yield are reported in $/aum for the pasture enterprise and $/cwt for the dairy enterprise. AUM represents “animal unit month” and is the amount of forage needed by an animal unit grazing for one month. CWT represents “hundredweight” and is equal to 100 pounds.

![Fig. 12. Percent MN-WI Organic Livestock Farms in FINBIN by Type, 2020-2021](image-url)
PASTURE

In 2020, MN-WI experienced adequate spring moisture with good-to-excellent pasture conditions. The following year, however, drought conditions in many areas of the Upper Midwest region saw deteriorating pasture with only two percent rated good-to-excellent by the end of August 2021 (USDA, NASS 2020 and 2021). Poor pasture conditions in 2021 led to a 7% year-over-year average yield loss and a doubling in pasture prices from $16.15/aum to $32.65/aum due to insufficient supplies.

Direct expenses for organic pasture production are determined largely by seed, fertilizer, fuel and machinery leases, hired labor, and, most importantly, land rent (Fig. 13). Land rent increased by 28% from 2020 to 2021 – having a significant impact on direct expenses, pasture production costs and, ultimately, livestock feed expenses. Seed costs, on the other hand, decreased by 73% year over year. Intensive pasture is typically improved through seeding and fertilizing to obtain optimal forage. General data sources for this section provided in the chart below.

FINBIN data sources for organic pasture enterprise summary 2020-2021 (# farms)

MN State College & University South (8)
MN State College & University North (12)
Wisconsin Technical College System (11)
Location: Minnesota, Wisconsin
Year: 2020-2021
Special sorts included: Total organic
Special sorts excluded: Partial organic, organic transition
### Organic Pasture Enterprise Summary by Year for MN-WI Farms, 2020-2021

<table>
<thead>
<tr>
<th>Year</th>
<th>MN-WI 2020</th>
<th>MN-WI 2021</th>
<th>MN-WI 2020-2021</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Number of farms</strong></td>
<td>13</td>
<td>18</td>
<td>31</td>
</tr>
<tr>
<td><strong>Acres</strong></td>
<td>120.98</td>
<td>127.10</td>
<td>124.53</td>
</tr>
<tr>
<td><strong>Yield (aum/acre)</strong></td>
<td>3.67</td>
<td>3.40</td>
<td>3.51</td>
</tr>
<tr>
<td><strong>Operators share of yield (%)</strong></td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td><strong>Value ($/aum)</strong></td>
<td>16.15</td>
<td>32.65</td>
<td>25.62</td>
</tr>
<tr>
<td><strong>Total product return ($/acre)</strong></td>
<td>59.29</td>
<td>110.92</td>
<td>89.89</td>
</tr>
<tr>
<td><strong>Other crop income ($/acre)</strong></td>
<td>9.34</td>
<td>0.30</td>
<td>3.98</td>
</tr>
<tr>
<td><strong>Gross return ($/acre)</strong></td>
<td><strong>68.64</strong></td>
<td><strong>111.21</strong></td>
<td><strong>93.87</strong></td>
</tr>
</tbody>
</table>

**Direct expenses ($/acre)**

<table>
<thead>
<tr>
<th>Item</th>
<th>MN-WI 2020</th>
<th>MN-WI 2021</th>
<th>MN-WI 2020-2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seed</td>
<td>15.39</td>
<td>4.21</td>
<td>8.77</td>
</tr>
<tr>
<td>Fertilizer</td>
<td>1.87</td>
<td>2.01</td>
<td>1.95</td>
</tr>
<tr>
<td>Fuel &amp; oil</td>
<td>4.70</td>
<td>4.89</td>
<td>4.81</td>
</tr>
<tr>
<td>Repairs</td>
<td>13.98</td>
<td>8.15</td>
<td>10.52</td>
</tr>
<tr>
<td>Custom hire</td>
<td>5.88</td>
<td>-</td>
<td>2.40</td>
</tr>
<tr>
<td>Hired labor</td>
<td>12.85</td>
<td>5.37</td>
<td>8.42</td>
</tr>
<tr>
<td>Land rent</td>
<td>40.85</td>
<td>52.28</td>
<td>47.63</td>
</tr>
<tr>
<td>Machinery leases</td>
<td>3.08</td>
<td>3.69</td>
<td>3.44</td>
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<td>Utilities</td>
<td>1.20</td>
<td>1.09</td>
<td>1.14</td>
</tr>
<tr>
<td>Hauling and Trucking</td>
<td>1.70</td>
<td>-</td>
<td>0.69</td>
</tr>
<tr>
<td>Organic certification</td>
<td>1.88</td>
<td>1.94</td>
<td>1.92</td>
</tr>
<tr>
<td>Operating interest</td>
<td>0.55</td>
<td>0.29</td>
<td>0.40</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>7.21</td>
<td>1.37</td>
<td>3.75</td>
</tr>
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<td><strong>Total direct expenses</strong></td>
<td><strong>111.14</strong></td>
<td><strong>85.29</strong></td>
<td><strong>95.82</strong></td>
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<td><strong>Return over direct expenses</strong></td>
<td><strong>-42.50</strong></td>
<td><strong>25.92</strong></td>
<td><strong>-1.96</strong></td>
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### Pasture Enterprise Summary by Year Con’t.

<table>
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<tr>
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<th>MN-WI 2021</th>
<th>MN-WI 2020–2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of farms</td>
<td>13</td>
<td>18</td>
<td>31</td>
</tr>
</tbody>
</table>

#### Overhead expenses ($/acre)

<table>
<thead>
<tr>
<th></th>
<th>2020</th>
<th>2021</th>
<th>2020–2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hired labor</td>
<td>1.08</td>
<td>1.20</td>
<td>1.15</td>
</tr>
<tr>
<td>RE &amp; personal property taxes</td>
<td>7.79</td>
<td>6.68</td>
<td>7.13</td>
</tr>
<tr>
<td>Farm insurance</td>
<td>1.72</td>
<td>1.76</td>
<td>1.74</td>
</tr>
<tr>
<td>Dues &amp; professional fees</td>
<td>0.64</td>
<td>0.41</td>
<td>0.50</td>
</tr>
<tr>
<td>Interest</td>
<td>43.65</td>
<td>11.31</td>
<td>24.48</td>
</tr>
<tr>
<td>Machinery &amp; building depreciation</td>
<td>12.95</td>
<td>9.19</td>
<td>10.72</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>7.21</td>
<td>1.37</td>
<td>3.75</td>
</tr>
<tr>
<td>Total overhead expenses</td>
<td>69.31</td>
<td>31.86</td>
<td>47.12</td>
</tr>
<tr>
<td>Total direct &amp; overhead expenses</td>
<td>180.45</td>
<td>117.16</td>
<td>142.94</td>
</tr>
<tr>
<td><strong>Net return</strong></td>
<td>-111.81</td>
<td>-5.94</td>
<td>-49.07</td>
</tr>
</tbody>
</table>

#### Government payments ($/acre)

|                      | -      | -      | -          |

#### Net return with government payments

|                      | -111.81| -5.94  | -49.07     |

#### Labor & management charge

|                      | 8.36   | 17.59  | 13.83      |

#### Net return over labor & management

|                      | -120.17| -23.53 | -62.91     |

#### Cost of production ($/aum)

<table>
<thead>
<tr>
<th></th>
<th>2020</th>
<th>2021</th>
<th>2020–2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total direct expense</td>
<td>30.26</td>
<td>25.11</td>
<td>27.31</td>
</tr>
<tr>
<td>Total direct &amp; overhead expense</td>
<td>49.14</td>
<td>34.49</td>
<td>40.74</td>
</tr>
<tr>
<td>Less government &amp; other income</td>
<td>46.59</td>
<td>34.40</td>
<td>39.60</td>
</tr>
<tr>
<td>With labor &amp; management</td>
<td>48.87</td>
<td>39.58</td>
<td>43.54</td>
</tr>
<tr>
<td><strong>Net value ($/acre)</strong></td>
<td>16.15</td>
<td>32.65</td>
<td>25.62</td>
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<tr>
<td><strong>Machinery cost ($/acre)</strong></td>
<td>41.94</td>
<td>27.09</td>
<td>33.14</td>
</tr>
<tr>
<td><strong>Estimated labor hours (#/acre)</strong></td>
<td>0.96</td>
<td>0.68</td>
<td>0.80</td>
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</tbody>
</table>
DAIRY

This section begins with a historic look at organic dairy production and milk prices for MN-WI farmers included in the FINBIN database. Next, financial information from the enterprise analysis is reviewed. Each table in the enterprise report section is organized with columns representing years and herd size for the Wisconsin and Minnesotan organic dairy farms combined. All direct and overhead expenses in the dairy enterprise summary is reported as dollars per cow; cost of production expenses at the end of the tables are reported in dollars per hundredweight (cwt).

**Organic Milk Prices and Production, Ten-Year Averages**

The following information comes from FINBIN farm records. During the 10-year period, 2012-2021, organic dairy farmers in MN-WI managed 100-cow herds on average with milk production of 14,927 lbs/cow (Fig. 14). The 10-year average organic milk price was $30.66/cwt.

![Fig. 14. Organic Milk Production and Prices, 2012-2021](image-url)
Herd sizes remained consistent over time for MN-WI dairy farms in FINBIN, though milk production generally increased. For the two-year benchmarking period, 2020-2021, the average MN-WI organic dairy farm managed 101 cows, producing 15,783 pounds of milk per cow. Milk production was up in 2021 compared to 2020, but prices were down slightly. The average cost of production, including a labor and management charge, was $26.67 per cwt during 2020-2021. As is typical on dairy farms, feed costs accounted for the largest share of expenses, totaling $2,192.28/cow on average or 68% of total direct expenses.

Although milk prices slumped by three percent from $29.41/cwt in 2020 to $28.50/cwt in 2021, the two-year average organic milk price was $28.92/cwt generating $4,486.53 per cow annually on average in gross sales for 2020-2021. After accounting for cull sales, inventory changes and government payments, gross income averaged $4,530.96 for the same period. Government payments declined significantly in 2021 compared to 2020 (when larger pandemic-related relief payments were available) from $419.67/cow to $292.92/cow. After factoring in labor and management fees, organic dairy farms saw an average net return of $344.84 per cow over this two-year period of time. Profitability tended to increase with herd size. The largest herds, those with over 250 cows, averaged a net return over labor and management of $1,288.62/cow while those with fewer than 71 cows failed to break even on expenses.

General data sources for this section provided in the chart below.

**FINBIN data sources for organic dairy enterprise summary 2020-2021 (# farms)**

- MN State College & University South (21)
- MN State College & University North (24)
- Wisconsin Technical College System (13)
- Location: Minnesota, Wisconsin
- Year: 2020-2021
- Special sorts included: Total organic
- Special sorts excluded: Partial organic, organic transition
# Organic Dairy Benchmark Report for MN-WI Farms, 2020-2021

<table>
<thead>
<tr>
<th>Median</th>
<th>#</th>
<th>10%</th>
<th>20%</th>
<th>30%</th>
<th>40%</th>
<th>50%</th>
<th>60%</th>
<th>70%</th>
<th>80%</th>
<th>90%</th>
<th>100%</th>
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<tbody>
<tr>
<td>Milk sales ($/cow)</td>
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<td>58</td>
<td>2314</td>
<td>3242</td>
<td>3439</td>
<td>3713</td>
<td>4145</td>
<td>4398</td>
<td>4537</td>
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<td>Gross margin ($/cow)</td>
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<td>2596</td>
<td>2991</td>
<td>3658</td>
<td>3844</td>
<td>4386</td>
<td>4538</td>
<td>4805</td>
<td>5060</td>
<td>5429</td>
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</table>

**Direct expenses ($/cow)**

<p>| | | | | | | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td>Total feed expense</td>
<td>2038.50</td>
<td>58</td>
<td>3321</td>
<td>2915</td>
<td>2498</td>
<td>2272</td>
<td>2098</td>
<td>1972</td>
<td>1771</td>
<td>1530</td>
<td>1303</td>
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<tr>
<td>Breeding fees</td>
<td>31.24</td>
<td>47</td>
<td>78</td>
<td>61</td>
<td>53</td>
<td>40</td>
<td>36</td>
<td>30</td>
<td>25</td>
<td>18</td>
<td>12</td>
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<tr>
<td>Veterinary</td>
<td>27.56</td>
<td>54</td>
<td>147</td>
<td>88</td>
<td>70</td>
<td>43</td>
<td>30</td>
<td>24</td>
<td>18</td>
<td>14</td>
<td>10</td>
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<tr>
<td>Livestock supplies</td>
<td>128.71</td>
<td>56</td>
<td>379</td>
<td>259</td>
<td>199</td>
<td>144</td>
<td>116</td>
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<td>86</td>
<td>55</td>
<td>39</td>
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<tr>
<td>Fuel &amp; Oil</td>
<td>61.59</td>
<td>58</td>
<td>148</td>
<td>129</td>
<td>91</td>
<td>81</td>
<td>65</td>
<td>58</td>
<td>44</td>
<td>35</td>
<td>25</td>
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<tr>
<td>Marketing</td>
<td>36.40</td>
<td>54</td>
<td>171</td>
<td>92</td>
<td>64</td>
<td>54</td>
<td>38</td>
<td>33</td>
<td>29</td>
<td>22</td>
<td>19</td>
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<tr>
<td>Operating interest</td>
<td>12.72</td>
<td>30</td>
<td>265</td>
<td>117</td>
<td>49</td>
<td>26</td>
<td>19</td>
<td>10</td>
<td>3</td>
<td>2</td>
<td>1</td>
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<tr>
<td>Total direct expenses</td>
<td>2983.16</td>
<td>58</td>
<td>4734</td>
<td>4259</td>
<td>3833</td>
<td>3435</td>
<td>3086</td>
<td>2819</td>
<td>2610</td>
<td>2333</td>
<td>2007</td>
</tr>
</tbody>
</table>

**Return over direct expenses**

|            | 1124.40   | 58   | 73   | 382  | 628  | 754  | 1063 | 1367 | 1592 | 1877 | 2283 |

**Overhead expenses ($/cow)**

<p>| | | | | | | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>Hired labor</td>
<td>111.99</td>
<td>37</td>
<td>409</td>
<td>203</td>
<td>174</td>
<td>156</td>
<td>121</td>
<td>46</td>
<td>0</td>
<td>0</td>
<td>0</td>
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<tr>
<td>Real estate taxes</td>
<td>22.82</td>
<td>45</td>
<td>64</td>
<td>48</td>
<td>35</td>
<td>29</td>
<td>24</td>
<td>23</td>
<td>21</td>
<td>13</td>
<td>10</td>
</tr>
<tr>
<td>Farm insurance</td>
<td>53.93</td>
<td>57</td>
<td>163</td>
<td>125</td>
<td>82</td>
<td>68</td>
<td>60</td>
<td>49</td>
<td>38</td>
<td>32</td>
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<td>Utilities</td>
<td>9.14</td>
<td>52</td>
<td>216</td>
<td>135</td>
<td>108</td>
<td>78</td>
<td>30</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Interest on intern. debt</td>
<td>24.04</td>
<td>44</td>
<td>129</td>
<td>62</td>
<td>50</td>
<td>33</td>
<td>25</td>
<td>22</td>
<td>12</td>
<td>8</td>
<td>6</td>
</tr>
<tr>
<td>Interest on long-term debt</td>
<td>103.90</td>
<td>37</td>
<td>334</td>
<td>303</td>
<td>207</td>
<td>166</td>
<td>137</td>
<td>99</td>
<td>73</td>
<td>51</td>
<td>17</td>
</tr>
<tr>
<td>Machinery depreciation</td>
<td>114.92</td>
<td>56</td>
<td>479</td>
<td>297</td>
<td>189</td>
<td>159</td>
<td>121</td>
<td>99</td>
<td>87</td>
<td>68</td>
<td>54</td>
</tr>
<tr>
<td>Building depreciation</td>
<td>53.90</td>
<td>38</td>
<td>269</td>
<td>226</td>
<td>133</td>
<td>114</td>
<td>62</td>
<td>43</td>
<td>23</td>
<td>18</td>
<td>7</td>
</tr>
<tr>
<td>Total overhead expenses</td>
<td>603.18</td>
<td>58</td>
<td>1104</td>
<td>951</td>
<td>837</td>
<td>752</td>
<td>645</td>
<td>561</td>
<td>481</td>
<td>410</td>
<td>354</td>
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<tr>
<td>Total dir. &amp; ovhd. exp.</td>
<td>3615.99</td>
<td>58</td>
<td>5354</td>
<td>4734</td>
<td>4440</td>
<td>4047</td>
<td>3768</td>
<td>3508</td>
<td>3304</td>
<td>2938</td>
<td>2457</td>
</tr>
</tbody>
</table>

**Net return**

|                  | 667.05     | 58   | -729 | -285 | 105  | 243  | 535  | 716  | 1076 | 1241 | 1461 |

**Net return over lbr & mgmt.**

|                  | 388.83     | 58   | -1110| -595 | -185 | -5   | 209  | 478  | 677  | 858  | 1011 |

**Cost of production ($/cwt)**

|                  | 25.69      | 58   | 40   | 33   | 31   | 29   | 26   | 25   | 24   | 23   | 21   |

**Avg. number of head**

|                  | 85.50      | 58   | 42   | 46   | 55   | 71   | 81   | 91   | 100  | 120  | 153  |

**Milk produced/head (lbs)**

|                  | 14910      | 58   | 8987 | 11026 | 12656 | 13072 | 13860 | 15407 | 16227 | 17612 | 18396 |

**Culling (%)**

|                  | 25.60      | 56   | 7    | 13    | 16    | 20    | 23    | 27    | 31    | 35    | 38    |

**Turnover rate (%)**

|                  | 30.70      | 57   | 13   | 16    | 22    | 27    | 31    | 34    | 40    | 44    | 49    |

**Barn capacity (%)**

|                  | 100.00     | 58   | 69   | 83    | 92    | 99    | 100   | 103   | 105   | 115   | 126   |

**Feed cost ($/cwt)**

|                  | 13.54      | 58   | 20   | 17    | 16    | 15    | 14    | 13    | 13    | 11    | 8     |

**Feed cost ($/head)**

|                  | 2038.50    | 58   | 3321 | 2915 | 2498 | 2272 | 2098 | 1972 | 1771 | 1530 | 1303 |

**Hired labor ($/cow)**

|                  | 182.23     | 50   | 710  | 419  | 292  | 216  | 188  | 165  | 151  | 115  | 90   |

**Avg milk price ($/cwt)**

|                  | 29.07      | 58   | 25   | 27   | 28   | 28   | 29   | 29   | 30   | 30   | 31   |
## Organic Dairy Summary by Year for MN-WI Farms, 2020-2021

<table>
<thead>
<tr>
<th></th>
<th>MN-WI 2020</th>
<th>MN-WI 2021</th>
<th>MN-WI 2020–2021 2-yr-avg</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Year</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Number of farms</strong></td>
<td>29</td>
<td>29</td>
<td>58</td>
</tr>
<tr>
<td><strong>Number of cows</strong></td>
<td>101.6</td>
<td>100.1</td>
<td>100.9</td>
</tr>
<tr>
<td>Milk produced per cow (lbs/cow)</td>
<td>14,686</td>
<td>16,897</td>
<td>15,783</td>
</tr>
<tr>
<td>Milk sold per FTE(^2) (lbs/cow)</td>
<td>1,071,026</td>
<td>1,182,277</td>
<td>1,127,531</td>
</tr>
<tr>
<td>Feed cost per cow ($/cow)</td>
<td>2,105.20</td>
<td>2,280.65</td>
<td>2,192.28</td>
</tr>
<tr>
<td>Average milk price ($/cwt)</td>
<td>29.41</td>
<td>28.50</td>
<td>28.92</td>
</tr>
<tr>
<td>Milk price/feed margin</td>
<td>15.07</td>
<td>15.00</td>
<td>15.03</td>
</tr>
<tr>
<td>Milk sold ($/cow)</td>
<td>4,232.99</td>
<td>4,743.83</td>
<td>4,486.53</td>
</tr>
<tr>
<td>Dairy Calves sold ($/cow)</td>
<td>77.63</td>
<td>46.09</td>
<td>61.97</td>
</tr>
<tr>
<td>Transferred out ($/cow)</td>
<td>60.30</td>
<td>44.52</td>
<td>52.47</td>
</tr>
<tr>
<td>Cull sales ($/cow)</td>
<td>202.86</td>
<td>314.86</td>
<td>258.45</td>
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<tr>
<td>Insurance income ($/cow)</td>
<td>10.96</td>
<td>7.72</td>
<td>9.35</td>
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<tr>
<td>Government payments ($/cow)</td>
<td>419.67</td>
<td>292.92</td>
<td>356.76</td>
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<tr>
<td>Other income ($/cow)</td>
<td>75.17</td>
<td>67.94</td>
<td>8.74</td>
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<td>Purchased ($/cow)</td>
<td>-52.70</td>
<td>-45.05</td>
<td>-48.90</td>
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<td>Transferred in ($/cow)</td>
<td>-32.97</td>
<td>-90.56</td>
<td>-61.55</td>
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<tr>
<td>Inventory change ($/cow)</td>
<td>30.06</td>
<td>71.59</td>
<td>50.67</td>
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<td>Dairy repl net cost ($/cow)</td>
<td>-663.24</td>
<td>-750.15</td>
<td>-706.37</td>
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<tr>
<td><strong>Gross margin</strong> ($/cow)</td>
<td><strong>4,360.74</strong></td>
<td><strong>4,703.70</strong></td>
<td><strong>4,530.96</strong></td>
</tr>
</tbody>
</table>

1/ Represents certified organic enterprises. Does not include those transitioning to organic production.  
2/ FTE indicates “full time equivalent” labor.
## Dairy Summary by Year

<table>
<thead>
<tr>
<th></th>
<th>MN-WI (2020)</th>
<th>MN-WI (2021)</th>
<th>MN-WI 2-yr-avg</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Number of farms</strong></td>
<td>29</td>
<td>29</td>
<td>58</td>
</tr>
<tr>
<td><strong>Direct expenses ($/cow)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Protein vit minerals</td>
<td>418.69</td>
<td>522.80</td>
<td>470.36</td>
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<tr>
<td>Corn, organic</td>
<td>399.41</td>
<td>438.55</td>
<td>418.84</td>
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<tr>
<td>Corn silage, organic</td>
<td>316.26</td>
<td>309.51</td>
<td>312.91</td>
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<tr>
<td>Hay alfalfa, organic</td>
<td>521.02</td>
<td>509.18</td>
<td>515.15</td>
</tr>
<tr>
<td>Pasture, organic</td>
<td>65.40</td>
<td>90.90</td>
<td>78.06</td>
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<td>Haylage alfalfa, organic</td>
<td>99.66</td>
<td>89.99</td>
<td>94.86</td>
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<td>Other feed stuffs</td>
<td>284.76</td>
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<td>Breeding fees</td>
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<td>Supplies</td>
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<td>144.16</td>
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<tr>
<td>Fuel &amp; oil</td>
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<td>71.49</td>
<td>63.90</td>
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<tr>
<td>Repairs</td>
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<td>171.08</td>
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<tr>
<td>Hired labor</td>
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<td>180.63</td>
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<td>Utilities</td>
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<td>94.72</td>
<td>83.95</td>
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<td>Hauling and trucking</td>
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<td>109.72</td>
<td>106.48</td>
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<td>Bedding</td>
<td>50.66</td>
<td>61.80</td>
<td>56.19</td>
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<td>Miscellaneous</td>
<td>211.01</td>
<td>205.75</td>
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<tr>
<td><strong>Total direct expenses</strong></td>
<td>3,113.36</td>
<td>3,366.18</td>
<td>3,238.84</td>
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<tr>
<td><strong>Return over direct expense</strong></td>
<td>1,247.38</td>
<td>1,337.52</td>
<td>1,292.12</td>
</tr>
</tbody>
</table>

1/ Represents certified organic enterprises. Does not include those transitioning to organic production.
2/ Miscellaneous includes “livestock insurance,” “machinery leases,” “government program expenses,” and “operating interest.”
Dairy summary by year – Continued

<table>
<thead>
<tr>
<th>Year</th>
<th>2020</th>
<th>2021</th>
<th>2020–2021 2-yr-avg</th>
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</thead>
<tbody>
<tr>
<td>Number of farms¹</td>
<td>29</td>
<td>29</td>
<td>58</td>
</tr>
</tbody>
</table>

Overhead expenses ($/cow)

<table>
<thead>
<tr>
<th></th>
<th>2020</th>
<th>2021</th>
<th>2020–2021 2-yr-avg</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hired labor</td>
<td>39.52</td>
<td>94.14</td>
<td>66.63</td>
</tr>
<tr>
<td>Building leases</td>
<td>50.73</td>
<td>61.54</td>
<td>56.10</td>
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<tr>
<td>Farm insurance</td>
<td>60.42</td>
<td>65.48</td>
<td>62.93</td>
</tr>
<tr>
<td>Interest</td>
<td>93.87</td>
<td>121.08</td>
<td>107.38</td>
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<tr>
<td>Mach &amp; building depreciation</td>
<td>200.21</td>
<td>213.72</td>
<td>206.91</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>116.28</td>
<td>117.52</td>
<td>116.89</td>
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<tr>
<td>Total overhead expenses</td>
<td>561.04</td>
<td>673.48</td>
<td>616.89</td>
</tr>
<tr>
<td>Total direct &amp; overhead expenses</td>
<td>3,674.40</td>
<td>4,039.66</td>
<td>3,855.69</td>
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Net return

<table>
<thead>
<tr>
<th></th>
<th>2020</th>
<th>2021</th>
<th>2020–2021 2-yr-avg</th>
</tr>
</thead>
<tbody>
<tr>
<td>Labor &amp; management charge</td>
<td>309.82</td>
<td>351.35</td>
<td>330.44</td>
</tr>
<tr>
<td>Net return over labor &amp; management</td>
<td>376.52</td>
<td>312.69</td>
<td>344.84</td>
</tr>
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</table>

Cost of production ($/cwt)

<table>
<thead>
<tr>
<th></th>
<th>2020</th>
<th>2021</th>
<th>2020–2021 2-yr-avg</th>
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<tbody>
<tr>
<td>Total direct expense</td>
<td>21.20</td>
<td>19.92</td>
<td>20.52</td>
</tr>
<tr>
<td>Total direct &amp; overhead expense</td>
<td>25.02</td>
<td>23.91</td>
<td>24.43</td>
</tr>
<tr>
<td>With other revenue adjustments</td>
<td>24.56</td>
<td>24.45</td>
<td>24.50</td>
</tr>
<tr>
<td>With labor and management</td>
<td>26.67</td>
<td>26.53</td>
<td>26.59</td>
</tr>
<tr>
<td>Est. labor hours per unit (hours/cow)</td>
<td>37.63</td>
<td>39.42</td>
<td>38.52</td>
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Other information

<table>
<thead>
<tr>
<th></th>
<th>2020</th>
<th>2021</th>
<th>2020–2021 2-yr-avg</th>
</tr>
</thead>
<tbody>
<tr>
<td>Culling rate (%)</td>
<td>22</td>
<td>30.2</td>
<td>26.1</td>
</tr>
<tr>
<td>Turnover rate</td>
<td>26.50</td>
<td>35.3</td>
<td>30.9</td>
</tr>
<tr>
<td>Cow death loss (%)</td>
<td>3.70</td>
<td>4.1</td>
<td>3.9</td>
</tr>
<tr>
<td>Cows per milking unit</td>
<td>12</td>
<td>11</td>
<td>11</td>
</tr>
<tr>
<td>Feed cost ($/cwt)</td>
<td>14.33</td>
<td>13.50</td>
<td>13.89</td>
</tr>
<tr>
<td>Feed cost ($/cow)</td>
<td>2,105.20</td>
<td>2,280.65</td>
<td>2,192.28</td>
</tr>
<tr>
<td>Hired labor ($/cow)</td>
<td>227.08</td>
<td>267.74</td>
<td>247.26</td>
</tr>
</tbody>
</table>

¹ Represents certified organic enterprises. Does not include those transitioning to organic production.
Organic Dairy Summary by Herd Size for MN-WI Farms, 2020-2021

<table>
<thead>
<tr>
<th></th>
<th>All</th>
<th>&lt;50 cows</th>
<th>50-100 cows</th>
<th>101-200 cows</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Number of farms</strong>¹</td>
<td>58</td>
<td>11</td>
<td>28</td>
<td>15</td>
</tr>
<tr>
<td>Milk sold</td>
<td>4,486.53</td>
<td>3,637.21</td>
<td>4,282.58</td>
<td>4,415.43</td>
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<tr>
<td>Dairy Calves sold</td>
<td>61.97</td>
<td>38.98</td>
<td>108.13</td>
<td>41.29</td>
</tr>
<tr>
<td>Transferred out</td>
<td>52.47</td>
<td>76.54</td>
<td>43.97</td>
<td>13.42</td>
</tr>
<tr>
<td>Cull sales</td>
<td>258.45</td>
<td>127.90</td>
<td>247.90</td>
<td>268.07</td>
</tr>
<tr>
<td>Insurance income</td>
<td>9.35</td>
<td>-</td>
<td>8.79</td>
<td>17.14</td>
</tr>
<tr>
<td>Government payments</td>
<td>356.76</td>
<td>175.63</td>
<td>343.77</td>
<td>313.66</td>
</tr>
<tr>
<td>Other income</td>
<td>71.58</td>
<td>54.86</td>
<td>87.62</td>
<td>84.22</td>
</tr>
<tr>
<td>Purchased</td>
<td>-48.90</td>
<td>-139.20</td>
<td>-103.22</td>
<td>-</td>
</tr>
<tr>
<td>Transferred in</td>
<td>-61.55</td>
<td>-24.12</td>
<td>-84.79</td>
<td>-71.31</td>
</tr>
<tr>
<td>Inventory change</td>
<td>50.67</td>
<td>329.13</td>
<td>28.09</td>
<td>20.55</td>
</tr>
<tr>
<td>Dairy repl net cost</td>
<td>-706.37</td>
<td>-378.55</td>
<td>-636.16</td>
<td>-636.78</td>
</tr>
<tr>
<td><strong>Gross margin</strong></td>
<td>4,530.96</td>
<td>3,898.37</td>
<td>4,326.68</td>
<td>4,465.68</td>
</tr>
<tr>
<td><strong>Direct expenses ($/cow)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Protein vit minerals</td>
<td>470.36</td>
<td>80.67</td>
<td>364.52</td>
<td>352.80</td>
</tr>
<tr>
<td>Corn organic</td>
<td>418.84</td>
<td>232.34</td>
<td>494.11</td>
<td>391.99</td>
</tr>
<tr>
<td>Corn silage organic</td>
<td>312.91</td>
<td>262.29</td>
<td>348.53</td>
<td>257.94</td>
</tr>
<tr>
<td>Hay alfalfa organic</td>
<td>515.15</td>
<td>249.03</td>
<td>623.08</td>
<td>613.89</td>
</tr>
<tr>
<td>Hay mixed organic</td>
<td>58.65</td>
<td>-</td>
<td>146.35</td>
<td>13.18</td>
</tr>
<tr>
<td>Haylage alfalfa organic</td>
<td>94.86</td>
<td>116.94</td>
<td>56.56</td>
<td>-</td>
</tr>
<tr>
<td>Other feed stuffs</td>
<td>310.99</td>
<td>469.21</td>
<td>277.53</td>
<td>422.78</td>
</tr>
<tr>
<td>Breeding fees</td>
<td>31.77</td>
<td>15.99</td>
<td>32.65</td>
<td>29.76</td>
</tr>
<tr>
<td>Veterinary</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Supplies</td>
<td>144.16</td>
<td>116.46</td>
<td>168.04</td>
<td>120.65</td>
</tr>
<tr>
<td>Repairs</td>
<td>171.08</td>
<td>131.14</td>
<td>199.83</td>
<td>176.34</td>
</tr>
<tr>
<td>Hired labor</td>
<td>180.63</td>
<td>56.15</td>
<td>127.56</td>
<td>147.90</td>
</tr>
<tr>
<td>Machinery leases</td>
<td>20.39</td>
<td>12.63</td>
<td>4.66</td>
<td>2.88</td>
</tr>
<tr>
<td>Utilities</td>
<td>83.95</td>
<td>53.02</td>
<td>75.81</td>
<td>62.29</td>
</tr>
<tr>
<td>Hauling and trucking</td>
<td>106.48</td>
<td>270.82</td>
<td>109.05</td>
<td>46.35</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>308.10</td>
<td>251.39</td>
<td>337.01</td>
<td>266.98</td>
</tr>
<tr>
<td><strong>Total direct expenses</strong></td>
<td>3,238.84</td>
<td>2,444.62</td>
<td>3,367.04</td>
<td>2,905.73</td>
</tr>
<tr>
<td><strong>Return over direct expense</strong></td>
<td>1,292.12</td>
<td>1,453.75</td>
<td>959.64</td>
<td>1,559.95</td>
</tr>
</tbody>
</table>

¹ Represents certified organic enterprises. Does not include those transitioning to organic production.
## Dairy Summary by Enterprise Size - Continued

<table>
<thead>
<tr>
<th></th>
<th>All</th>
<th>&lt;50 cows</th>
<th>50-100 cows</th>
<th>101-200 cows</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Number of farms</strong></td>
<td>58</td>
<td>11</td>
<td>28</td>
<td>15</td>
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</table>

### Overhead Expenses ($/cow)

<table>
<thead>
<tr>
<th></th>
<th>All</th>
<th>&lt;50 cows</th>
<th>50-100 cows</th>
<th>101-200 cows</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hired labor</td>
<td>66.63</td>
<td>15.21</td>
<td>102.04</td>
<td>61.71</td>
</tr>
<tr>
<td>Building leases</td>
<td>56.10</td>
<td>59.68</td>
<td>26.05</td>
<td>115.51</td>
</tr>
<tr>
<td>Interest</td>
<td>107.38</td>
<td>92.18</td>
<td>126.05</td>
<td>112.34</td>
</tr>
<tr>
<td>Mach &amp; bldg depreciation</td>
<td>206.91</td>
<td>178.20</td>
<td>217.06</td>
<td>201.90</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>179.83</td>
<td>213.43</td>
<td>207.40</td>
<td>168.76</td>
</tr>
<tr>
<td><strong>Total overhead expenses</strong></td>
<td>616.85</td>
<td>558.70</td>
<td>678.60</td>
<td>660.22</td>
</tr>
<tr>
<td><strong>Total direct &amp; overhead expenses</strong></td>
<td>3,855.69</td>
<td>895.05</td>
<td>281.04</td>
<td>899.73</td>
</tr>
<tr>
<td><strong>Net return</strong></td>
<td>675.27</td>
<td>895.05</td>
<td>281.04</td>
<td>899.73</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>All</th>
<th>&lt;50 cows</th>
<th>50-100 cows</th>
<th>101-200 cows</th>
</tr>
</thead>
<tbody>
<tr>
<td>Labor &amp; management charge</td>
<td>330.44</td>
<td>392.36</td>
<td>332.19</td>
<td>405.91</td>
</tr>
<tr>
<td><strong>Net return over labor &amp; mgt</strong></td>
<td>344.84</td>
<td>502.69</td>
<td>-51.16</td>
<td>493.82</td>
</tr>
</tbody>
</table>

### Cost of Production/cwt. Milk

<table>
<thead>
<tr>
<th></th>
<th>All</th>
<th>&lt;50 cows</th>
<th>50-100 cows</th>
<th>101-200 cows</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total direct expense per unit</strong></td>
<td>20.52</td>
<td>18.44</td>
<td>22.55</td>
<td>18.93</td>
</tr>
<tr>
<td><strong>Total dir&amp; ovhd expense per unit</strong></td>
<td>24.43</td>
<td>22.65</td>
<td>27.09</td>
<td>23.23</td>
</tr>
<tr>
<td>With other revenue adjustments</td>
<td>24.50</td>
<td>20.94</td>
<td>27.21</td>
<td>23.37</td>
</tr>
<tr>
<td>With labor and management</td>
<td>26.59</td>
<td>23.90</td>
<td>29.43</td>
<td>26.02</td>
</tr>
<tr>
<td><strong>Est. labor hours per unit</strong></td>
<td>38.52</td>
<td>39.00</td>
<td>45.76</td>
<td>36.98</td>
</tr>
</tbody>
</table>

### Other Information

<table>
<thead>
<tr>
<th></th>
<th>All</th>
<th>&lt;50 cows</th>
<th>50-100 cows</th>
<th>101-200 cows</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of cows</td>
<td>100.9</td>
<td>41.5</td>
<td>77.0</td>
<td>139.1</td>
</tr>
<tr>
<td>Milk produced per cow</td>
<td>15,783</td>
<td>13,261</td>
<td>14,934</td>
<td>15,347</td>
</tr>
<tr>
<td>Lb. of milk sold per FTE</td>
<td>1,127,531</td>
<td>940,417</td>
<td>895,842</td>
<td>1,137,659</td>
</tr>
<tr>
<td>Culling percentage</td>
<td>26.1</td>
<td>18.2</td>
<td>26.1</td>
<td>25.4</td>
</tr>
<tr>
<td>Turnover rate</td>
<td>30.9</td>
<td>26.1</td>
<td>31.5</td>
<td>31.0</td>
</tr>
<tr>
<td>Cow death loss percent</td>
<td>3.9</td>
<td>5.5</td>
<td>4.3</td>
<td>4.7</td>
</tr>
<tr>
<td>Cows per milking unit</td>
<td>11</td>
<td>8</td>
<td>10</td>
<td>12</td>
</tr>
<tr>
<td>Feed cost per cwt. of milk</td>
<td>13.89</td>
<td>11.59</td>
<td>15.48</td>
<td>13.37</td>
</tr>
<tr>
<td>Feed cost per cow</td>
<td>2,192.28</td>
<td>1,537.03</td>
<td>2,312.44</td>
<td>2,052.58</td>
</tr>
<tr>
<td>Hired labor cost per cow</td>
<td>247.26</td>
<td>71.35</td>
<td>229.60</td>
<td>209.61</td>
</tr>
<tr>
<td>Avg. milk price per cwt.</td>
<td>28.92</td>
<td>27.77</td>
<td>29.25</td>
<td>29.39</td>
</tr>
<tr>
<td>Milk price / feed margin</td>
<td>15.03</td>
<td>16.18</td>
<td>13.77</td>
<td>16.01</td>
</tr>
</tbody>
</table>

1/ Represents certified organic enterprises. Does not include those transitioning to organic production.
# FARM FINANCE SCORECARD

<table>
<thead>
<tr>
<th>Category</th>
<th>Your Farm:</th>
<th>Desired Trend</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Liquidity</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Current Ratio</td>
<td>Vulnerable 1.3 - 2.0 Strong up</td>
<td></td>
</tr>
<tr>
<td>Working Capital as % of Gross Revenue</td>
<td>10% - 30% Strong up</td>
<td></td>
</tr>
<tr>
<td>Working Capital as % of Operating Expense*</td>
<td>20% - 40% Strong up</td>
<td></td>
</tr>
<tr>
<td><strong>Solvency</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Debt-to-Asset Ratio</td>
<td>Vulnerable 60% - 30% Strong down</td>
<td></td>
</tr>
<tr>
<td>Equity-to-Asset Ratio*</td>
<td>40% - 70% Strong up</td>
<td></td>
</tr>
<tr>
<td>Debt-to-Equity Ratio*</td>
<td>1.5 - 0.45 Strong down</td>
<td></td>
</tr>
<tr>
<td><strong>Profitability</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rate of Return on Assets</td>
<td>Vulnerable 4% - 8% Strong up</td>
<td></td>
</tr>
<tr>
<td>Rate of Return on Equity</td>
<td>3% - 10% Strong up</td>
<td></td>
</tr>
<tr>
<td>Operating Profit Margin Ratio</td>
<td>15% - 25% Strong up</td>
<td></td>
</tr>
<tr>
<td>Asset Turnover Ratio</td>
<td>30% - 45% Strong up</td>
<td></td>
</tr>
<tr>
<td><strong>Repayment Capacity</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Debt Coverage Ratio</td>
<td>Vulnerable 1.25 - 1.75 Strong up</td>
<td></td>
</tr>
<tr>
<td>Replacement Coverage Ratio</td>
<td>1.1 - 1.5 Strong up</td>
<td></td>
</tr>
<tr>
<td>Term Debt &amp; Finance Lease</td>
<td>1.25 - 1.75 Strong up</td>
<td></td>
</tr>
<tr>
<td>Coverage Ratio*</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Financial Efficiency</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operating Expense Ratio</td>
<td>Vulnerable 80% - 60% Strong down</td>
<td></td>
</tr>
<tr>
<td>Depreciation Expense Ratio</td>
<td>10% - 5% Strong down</td>
<td></td>
</tr>
<tr>
<td>Interest Expense Ratio</td>
<td>10% - 5% Strong down</td>
<td></td>
</tr>
<tr>
<td>Net Farm Income Ratio</td>
<td>10% - 20% Strong up</td>
<td></td>
</tr>
</tbody>
</table>

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

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FARM FINANCE TERMS AND DEFINITIONS  

LIQUIDITY is the ability of your farm business to meet financial obligations as they come due – to generate enough cash to pay your family living expenses and taxes and make debt payments on time. The following are measures of liquidity:

1. **Current ratio**: measures the extent to which current farm assets, if sold tomorrow, would pay off current farm liabilities.

2. **Working capital**: tells us the operating capital available in the short term from within the business.

3. **Working capital to gross revenues**: measures operating capital available against the size of the business.

SOLVENCY is the ability of your business to pay all its debts if it were sold tomorrow. Solvency is important in evaluating the financial risk and borrowing capacity of the business.

4. **Farm debt-to-asset ratio**: is the bank’s share of the business. It compares total farm debt to total farm assets. A higher ratio is an indicator of greater financial risk and lower borrowing capacity.

5. **Farm equity-to-asset ratio**: is your share of the business. It compares farm equity to total farm assets. If you add the debt-to-asset ratio and the equity-to-asset ratio you must get 100%.

6. **Farm debt-to-equity ratio**: compares the bank’s ownership to your ownership. It also indicates how much the owners have leveraged (i.e., multiplied) their equity in the business.

PROFITABILITY is the difference between the value of goods produced and the cost of the resources used in their production.

7. **Net farm income**: represents return to your labor, management and equity that you have invested in the business. It is the reward for investing your unpaid family labor,

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management and money in the business instead of elsewhere. Anything left in the business, i.e., not taken out for family living and taxes, will increase your farm net worth.

8. Rate of return on farm assets
- can be thought of as the average interest rate being earned on all (yours and creditors’) investments in the farm. Unpaid labor and management are assigned a return before return on farm assets is calculated.

9. Rate of return on farm equity: represents the interest rate being earned by your investment in the farm. This return can be compared to returns available if your equity were invested somewhere else, such as a certificate of deposit.

10. Operating profit margin: shows the operating efficiency of the business. If expenses are low relative to the value of farm production, the business will have a healthy operating profit margin. A low profit margin can be caused by low product prices, high operating expenses, or inefficient production.


REPAYMENT CAPACITY shows the borrower’s (i.e., your) ability to repay term debts on time. It includes nonfarm income and so is not a measure of business performance alone.

12. Capital debt repayment capacity: measures the amount generated from farm and non-farm sources, to cover debt repayment and capital replacement.

13. Capital debt repayment margin: is the amount of money remaining after all operating expenses, taxes, family living costs, and scheduled debt payments have been made. It’s really the money left, after paying all bills, that is available for purchasing or financing new machinery, equipment, land or livestock.

FINANCIAL EFFICIENCY shows how effectively your business uses assets to generate income. Past performance of the business could well indicate potential future accomplishments. It also answers the questions: a) Are you using every available asset to its fullest potential? and b) What are the effects of production, purchasing, pricing, financing and marketing decisions on gross income?

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

15. Term-debt coverage ratio: tells whether your business produced enough income to cover all intermediate and long-term debt payments. A ratio of less than 1.0 indicates that
the business had to liquidate inventories, run up open accounts, borrow money, or sell assets to make scheduled payments.

16. Replacement margin coverage ratio: A ratio under 1.0 indicates that you did not generate enough income to cover term debt payments and unfunded capital purchases.

17. Asset-turnover rate: measures efficiency in using capital. You could think of it as capital productivity. Generating a high level of production with a low level of capital investment will give a high asset-turnover rate. If, on the other hand, the turnover is low you will want to explore methods to use the capital invested much more efficiently or sell some low-return investments. (It could mean getting rid of that swamp and ledge on the back 40 and getting something that produces income.)

The last four ratios show how Gross Farm Income is used. The sum of the four equals 100% of Gross Farm Income.

18. Operating-expense ratio: shows the proportion of farm income that is used to pay operating expenses, not including principal or interest.

19. Depreciation-expense ratio: indicates how fast the business wears out capital. It tells what proportion of farm income is needed to maintain the capital used by the business.

20. Interest-expense ratio: shows how much of gross farm income is used to pay for interest on borrowed capital.

21. Net farm income ratio: compares profit to gross farm income. It shows how much is left after all farm expenses, except for unpaid labor and management, are paid.
FARM FINANCE CALCULATIONS

LIQUIDITY
1. **Current ratio** = Total current farm assets/Total current farm liabilities
2. **Working capital** = Total current farm assets–Total current farm liabilities
3. **Working capital to gross revenues** = Working capital/Gross farm income

SOLVENCY (MARKET)
4. **Farm debt-to-asset ratio** = Total farm liabilities/Total farm assets
5. **Farm equity-to-asset ratio** = Farm net worth/Total farm assets
6. **Farm debt-to-equity ratio** = Total farm liabilities/Farm net worth

PROFITABILITY
7. **Net farm income** = (Gross cash farm income–Total cash farm expense)+ / – (Inventory changes– Depreciation)
8. **Rate of return on farm assets** = Return on farm assets / Average farm assets
   *where Return on farm assets = Net farm income+Farm interest–Value of operator labor & management
9. **Rate of return on farm equity** = Return on farm equity / Average farm net worth
   *where Return on farm equity=Net farm income–Value of operator labor & management
10. **Operating profit margin** = Return on farm assets/Value of farm production
   *where Value of farm production = Gross cash farm income+ / – Inv. change of crops, mkt. lvst., Brdg. Lvst. & other income items–Feeder livestock purchased–Purchased feed
11. **EBITDA** = Net farm income+ Interest expense+ Depreciation and amortization expense