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Status of Organic Agriculture in Minnesota – 2020

A Report to the Minnesota Legislature

03/18/2022

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Thank you to the University of Minnesota, USDA Farm Service Agency, Natural Resources Conservation Service, and Risk Management Agency for their contributions to this report.

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Executive Summary

U.S. and global organic markets continue to grow and expand providing increasing opportunity for Minnesota organic farmers of all kinds. The U.S. organic food market reached an estimated \$50 billion in 2019, with Minnesota organic farm production and sales ranking in the top 10 for nearly 15 types of crops and livestock (including livestock products like milk). Organic farmers are concerned that organic food is experiencing competition from competing label claims like "natural," and "non-GMO."

The number of organic farms in Minnesota grew by over 16% between 2016 and 2020 to an estimated 734. Minnesota's organic farming expansion was on par with the national adoption rate during this time likely because Minnesota farmers are aware of the increasing market demand. Since 2016, there's been a 20% increase in certified organic handlers that have facilities in Minnesota; they add additional value to raw organic products through processing, packaging, and/or distribution.

Organic farms are widely distributed across the state and their type of production typically resembles that of their non-organic counterparts in our various agro-ecoregions. Most Minnesota organic crop and dairy farmers converted to organic from conventional production, however most organic fruit and vegetable farmers started their farming careers as organic growers. While they acknowledge production challenges and concerns, most organic farmers appear to feel positive about their decision to farm organic. A little less than half believe organic production costs are lower, while about three quarters believe profitability is higher. More than half believe they or a family member will be farming in 20 years. They cite major challenges including public confusion about the organic label, the cost of inputs such as seed, fuel, and feed, extreme weather, the cost of health care, and weed management. They want research on weed management, seed breeding and variety development for use in organic systems, soil health, biology and fertility, economics of organic farming, consumer issues, and nutritional characteristics of organic food.

The Minnesota Department of Agriculture (MDA), University of Minnesota (U of M), and U.S. Department of Agriculture (USDA) agencies in Minnesota cooperate to offer a wide array of support to organic farmers, including information, education, and networking, research, conservation assistance, financial support, and crop insurance.

This document reports on progress toward goals that were enumerated in the 2015 Status of Organic Agriculture report. It presents a set of new recommendations that were informed by input from the Minnesota Organic Advisory Task Force (OATF), surveys of Minnesota organic farmers, agency partners, MDA staff experiences, and other direct input from the organic community.

Programs that should be continued or enhanced include education, information, and networking, financial assistance for transition and organic certification, pesticide drift investigation, and outreach to organic producers regarding state and federal programs.

Policy recommendations include monitoring proposed changes to organic laws and regulations, and informing agricultural leaders, organic farmers, and consumers of any changes. Work across agencies to provide opportunities for organic farmers to opt out of pesticide application on roadsides when these producers provide a plan to manage noxious weeds.

Research recommendations include continued support for long- and short-term cropping system research, applied research efforts that address current and emerging organic producer and handler priorities (including

soil, weed, insect pest, GMO drift, food safety, nutrition, and topics related to the economics and sociology of organic transition and production), and ensuring that investigators at the U of M and elsewhere are aware of legislatively funded research opportunities administered by the MDA.

Introduction

The MDA prepared this report for the Minnesota Legislature to meet its statutory obligation to report available data on organic acreage and production, available data on the sales or market performance of organic products, and recommendations regarding programs, policies, and research efforts that will benefit Minnesota's organic agriculture sector. (MINN. STAT. 31.94) This is the sixth *Status of Organic Agriculture in Minnesota* report that has been prepared since 2001.

Background

Organic is a labeling claim that describes how an agricultural product was grown and handled before it reached the consumer. "Organic" was defined by Congress in the Organic Foods Production Act of 1990. After 10 years of rulemaking and two public comment periods, The National Organic Program (NOP) Final Rule was published in the Federal Register on December 21, 2000 and went into effect on October 21, 2002.

The Final Rule established uniform national organic standards for the production and handling of organic food and established the NOP as regulatory authority for organic. The NOP is responsible for the oversight and enforcement of national organic standards, accreditation of certifying agencies, and facilitation of domestic and international marketing of organic products. The NOP is housed within the Agricultural Marketing Service (AMS) at the USDA. The Minnesota Legislature adopted the national organic standards by reference in 2003.

While some of organic's value is intrinsic, some is also extrinsic and depends on the transparency and consumer confidence in the organic certification process. At the farm level, organic agriculture is a management-intensive system of farming that relies on biology, timing, and ecological cycling to create vigorous crops and livestock, and to manage insect pests, weeds, and disease.

Selected USDA Organic farming requirements:

- Use biologically-based weed and pest control (synthetic commercial herbicides, insecticides and fungicides are prohibited – with very few exceptions).
- Use only naturally- occurring fertilizers (manure, compost, mined minerals).
- Use no GMO seed or other GMO materials.
- Protect soil and water.
- Plant buffers and barriers to prevent GMO and chemical drift from neighbors.
- Provide animals with clean, comfortable living conditions and access to outdoors.
- Use extended crop rotation and other practices that enhance biodiversity.
- Maintain production, input, harvest, storage, and sales records that demonstrate compliance with organic standards.
- Undergo monitoring by an approved 3rd party agency, including annual and unannounced farm inspections.

Organic is also third-party verified. A USDA-approved organization called a certifying agency reviews farm records and conducts an on-farm inspection at least once per year. Accredited certifying agents active in Minnesota include:









For a product to retain its organic status, any additional processing (or "handling," as USDA calls it) must also be done under certified organic conditions. All ingredients, processing aids, pest management in the facility, and labeling must follow the National Organic Standards. There must be no opportunity for organic products to mix, or commingle, with similar non-organic products or to come into contact with unapproved substances. Organic handlers must also be inspected at least once a year.

Primary data sources

There are a growing number of data sources that report organic information on state, national, and international bases, but they vary in accuracy, completeness, and timeliness. In this report, we draw upon the following:

- MDA: We maintain a list of farms we believe to be certified organic. It is based on information we collect
 periodically from certifying agencies and on participation in programs that require applicants to
 document their certification status. There is some churn as famers exit and enter organic, and we
 believe our list is likely to slightly overestimate the number of Minnesota certified organic farms and
 handlers. We also survey Minnesota organic farmers every few years, focusing on farmer opinions and
 experiences.
- USDA National Organic Program (NOP): The NOP, part of USDA's Agricultural Marketing Service (AMS),
 collects and publishes information provided by accredited certifying agencies (ACAs) in a database called
 the Organic INTEGRITY Database. This resource has steadily improved over the past several years and is
 now probably the most reliable source of organic operation numbers.
- USDA National Agricultural Statistics Service (NASS): NASS started conducting organic farmer surveys in 2008 and report acreage and production data in a consistent manner. While responding is legally mandatory, in practice there is wide variability in the number of farmers that respond.
- FINBIN: The Center for Farm Financial Management (CFFM), located at the University of Minnesota (U of M), is a publicly available database that contains detailed, privacy-protected production and financial information from farms in Minnesota and 10 other states. Users can customize detailed reports on whole farm performance as well as individual crop and livestock enterprises. Beginning in 2019, the U of M is leading a three-year, multi-state organic benchmarking effort to collect and analyze organic financial data. The project will support organic producers by offering reduced tuition for farm business management education and the newly generated organic farm data will added to FINBIN.

Organic Farm and Market Trends

Organic adoption and production

The number of organic operations continues to grow in Minnesota and throughout the U.S. (Table 1). NOP data indicate the number of certified organic farms in Minnesota grew by nearly 16% during the past five years, while the number of organic farms in the U.S. grew by 17%. This growth is supported by the increasing consumer demand for organic.

Table 1. Certified organic operations in Minnesota, 2016-2020

*Some operations are certified both as farm and handler

Year	2016	2017	2018	2019	2020
Handlers	207	187	236	247	250
Farms	615	514	718	747	734
Total Operations*	815	850	945	984	967

Source: National Organic Program

Figures 1 and 2 show the distribution and concentration of certified organic farms and handlers in Minnesota. Geographically, organic farms typically mirror their non-organic counterparts. While you'll find just about every type of organic operation in every part of the state, there do tend to be many organic dairies in the "dairy belt" of Stearns and neighboring counties, as well as in southeastern Minnesota. In the Red River Valley, you're likely to find relatively large organic farms that specialize in grains and oilseeds. Near the Twin Cities and other metropolitan areas where land prices can be very high, there tend to be more vegetable operations.

Figure 1. Distribution and concentration of certified organic handlers, 2020

Certified Organic Handlers in Minnesota, 2020

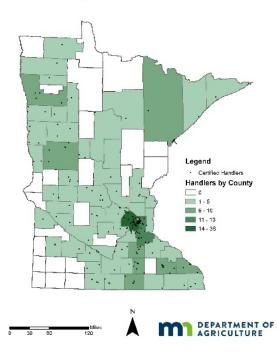
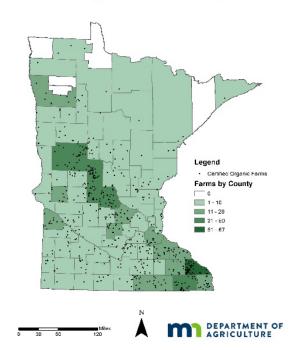


Figure 2. Distribution and concentration of certified organic farms, 2020

Certified Organic Farms in Minnesota, 2020



Here, we report acreage, production, and ranking data from the 2019 NASS Organic Survey, which was self-reported by the farmers who elect to participate in the survey. While there are some omissions and inconsistencies, they are the most comprehensive acreage, production, and farm sales estimates available at present.

Minnesota remains a top ten producer of a wide array of organic crops and livestock (Tables 2 and 3).

Table 2. Minnesota organic acres, sales, and rankings for selected organic crops, 2019

(D) indicates value withheld to avoid disclosing data for individual farms

Сгор	Acres harvested	Acre rank	Sales (\$)	Sales rank
Apples	81	8	367,782	8
Barley	1,930	8	361,073	8
Beans (dry edible)	4,349	2	4,151,166	3
Buckwheat	273	4	53,992	5
Corn (grain)	34,397	3	24,863,496	3
Corn (silage)	3,982	4	320,037	10
Hay (alfalfa & alfalfa mixtures)	25,302	5	6,882,393	6
Haylage	10,179	11	1,019,606	14
Oats	6,172	3	1,444,161	3
Rye	1,526	2	328,736	2
Soybeans	18,717	3	10,830,644	4
Wheat	6,645	4	2,291,788	5
All vegetables, potatoes & melons (field grown)	4,346	8	(D)	(D)

Table 3. Minnesota head, sales, and rankings for selected organic livestock, 2019

(D) indicates value withheld to avoid disclosing data for individual farms

Livestock	Head	Rank	Sales (\$)	Sales rank
Beef cows	430	16	110,343	15
Broiler chickens	2,000	11	40,000	14
Goats and kids	1,167	2	28,267	2
Hogs and pigs	798	5	173,094	6
Milk cows	2,966	9	2,921,205	9
Sheep and lambs	(D)	(D)	(D)	(D)
Turkeys	(D)	(D)	(D)	(D)

Organic prices

Organic price data has also become more available in the past five years. The Livestock, Poultry, and Grain Market News Division within AMS has been collecting spot (cash) market prices from buyers and publishing it biweekly since 2007 (firms that report these prices to the USDA do so voluntarily). Since the last *Status of Organic Report*, AMS has added bid and contract prices to the reports it offers. Figures 3 through 6 show average quarterly prices for corn, soybeans, and small grains between 2016 and 2020. Gaps in the accompanying figures

mean that no sales were reported during that period, or that the number of sales reported was so low that AMS withheld the data in order to protect buyer/seller confidentiality.

Figure 7 shows the average price per hundredweight reported by Minnesota organic farmers who participated in farm business management education programs and provided their farm data for inclusion in the FINBIN database. The CFFM, which manages the database, ensures that reporting farms' privacy is protected and that no individual farm can be identified. In the past five years, the premium for organic milk has been as little as \$12.11 and as great as \$18.69 per hundredweight.

Figure 3. Organic corn prices from 2016 to 2020

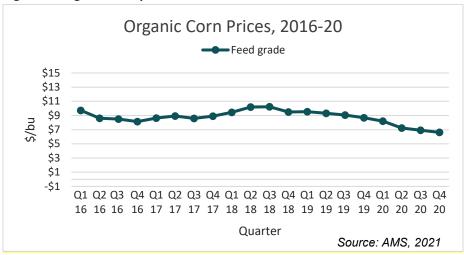


Figure 4. Organic soybean prices from 2016 to 2020

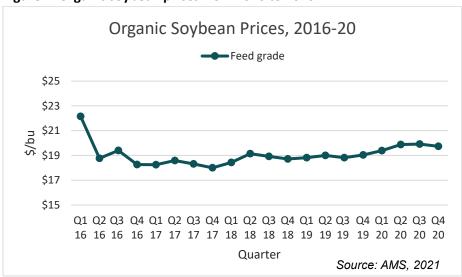


Figure 5. Organic wheat prices from 2016 to 2020

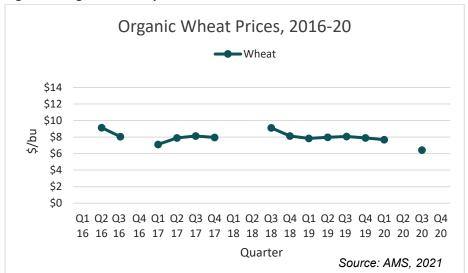


Figure 6. Organic barley and oat prices from 2016 to 2020

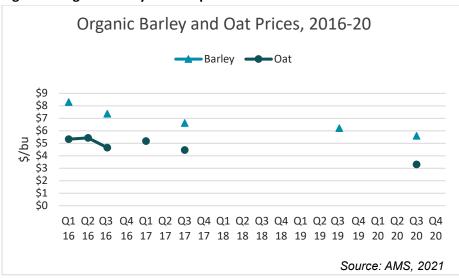
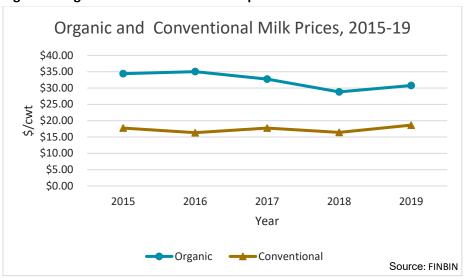


Figure 7. Organic and conventional milk prices from 2015 to 2019



Market Demand

The United States is a dominant player in a growing global organic market. As of 2018, the U.S. organic market was the largest in the world (\$43.6 billion), followed by Germany (\$12.4 billion), France (\$10.4 billion), with China gaining ground (\$9.2 billion). The highest per capita organic consumption rates, however, belonged not to these "big four," but to Denmark, Switzerland, and Sweden (Willer et. al, 2020).

Export and import data are somewhat problematic. Beginning in 2011, classification codes were established to allow tracking for a limited set of organic products (mostly fruits and vegetables, as well as coffee). Consequently, import/export data reported by the USDA Foreign Agricultural Service (FAS) paint an incomplete picture of U.S. organic trade, particularly for states like Minnesota; since our major organic production (grains, beans, oilseeds) is not currently coded, they are not represented in the import/export figures. The FAS data shows an imbalance for each of the last five years. For example, imports top exports at \$2.4 billion in 2020 with exports at \$647 million (FAS, 2020).

Consumer research organizations like the Organic Trade Association (OTA), Mintel, and the Hartman Group (Hartman) track and characterize U.S. organic consumer sales. Data published by OTA show the U.S. organic market reached over \$50 billion in 2019 (Figure 8).

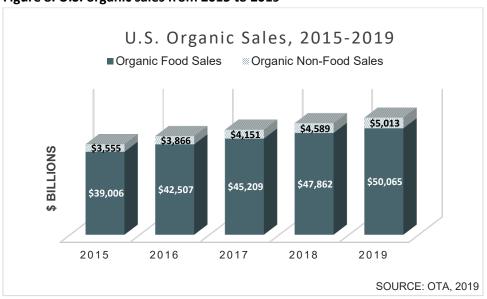


Figure 8. U.S. organic sales from 2015 to 2019

Organic food and beverage sales continue to account for the majority (90%) of the U.S. organic market, but the non-food organic sector is growing slightly faster (Figure 9), especially the textiles and personal care sectors, and reached \$5 billion in 2019 (OTA, 2019).

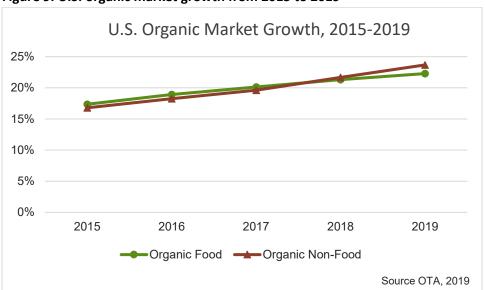


Figure 9. U.S. organic market growth from 2015 to 2019

Organic food now accounts for 5.8% of all U.S. foods sales. Produce is still far and away the bestselling organic food category with 2019 sales at \$18 billion. Organic meat, poultry and fish, the smallest organic food category did see almost 10% growth in 2019, which is the highest growth of any organic food category. Organic poultry made up \$865 million of the \$1.4 billion in sales of that category (OTA, 2019).

Organic consumer insights

The Hartman Group, Organic Trade Association, and Mintel report that consumer interest in organic is strong and continues to grow. In 2020, Hartman reported as many as 82% of households buy organic products at least occasionally. Mintel also notes that a key driver of organic growth is the availability of private labels, which have lowered prices and increased accessibility.

Greater availability of organic products has all segments of the U.S. population purchasing organic products. Organic users by ethnicity in 2017 were 79% Caucasian, 12% African American, 12% Hispanic, and 8% Asian/Pacific Islander. Interestingly, African Americans, Hispanic, and Asian/Pacific Islanders had a greater daily frequency of use of organic food and beverages than Caucasians (Hartman, 2017). In addition, more than 50% of Hispanic households buy organic products at grocery stores and are especially drawn to organic produce section (Packaged Facts, 2017).

Consumer research groups have also investigated consumer motivations for buying organic. Hartman found consumers' main reasons for choosing organic were, "safer for me" and avoiding pesticides, growth hormones, higher quality, and to avoid GMOs (Hartman, 2020).

Hartman, Mintel, and OTA (2019 & 2020) report that Millennials and Generation Z are the most dedicated and largest group of organic buyers. Millennials and Generation Z have lived with organics their whole lives and expect transparency in their food purchases. A study conducted by YouGov for Whole Foods Market showed that more than half of Millennials are buying more organic than five years ago. In addition, 77% report that they are well informed or know quite a bit about organic products, with 54% of Millennial parents saying they have confidence in the integrity of the organic label.

However, consumer confusion about the practices behind and characteristics of organic farming and food is a recurring trend. In addition to advocates, organic also has active detractors, who use both traditional and social media. While there are specific criteria that organic farmers (and products) must meet before they can bear the USDA Organic Seal, consumer confusion about what the label means continues to exist. Mainly the confusion comes when consumers are purchasing a product and are comparing labels. In 2017, Consumer Reports National Research Center found that 73% of consumers would purchase a product labeled "natural" over the 53% that would choose the organic label. Consumers attribute many benefits to foods labeled "natural," such as no synthetic pesticides, no antibiotics, no GMOs, however it is important to note that a standard definition for "natural" does not exist.

When consumers are asked "what labels are important when shopping," natural is high on the list of importance, but so is humane treatment of animals, sustainability, and social responsibility (Hartman, 2020). Some producers and consumers are looking beyond organic; in 2017, the Regenerative Organic Alliance, which is comprised of farmers, business leaders, and experts in soil health, animal welfare, and social fairness created the Regenerative Organic Certified label and certification process. OTA (2017) expressed concern that the label may confuse consumers, since consumers may not realize the certification is based on organic standards, and then they may think organic does not have requirements for soil health or animal welfare.

Promotional check-off effort

In the previous report it was mentioned that around 2012, the OTA proposed an organic research and promotion check-off be established, and in 2015 they formally petitioned the USDA to do so. In 2017, USDA published a proposed rule for the check off. Comments to USDA revealed a lack of consensus within the industry, which prompted them to terminate the proposed rule in 2018.

Minnesota Organic Farmer Experiences and Perspectives

The MDA pays close attention to the experience, ideas, and needs of organic farmers by occasionally surveying them and by listening to feedback from the Organic Advisory Task Force (OATF), which includes representatives from the organic farm, processing, retail, and consumer sectors. (MINN. STAT. 31.94) The MDA surveyed organic farmers in the state in 2020 (Appendix A). The results provide a snapshot of organic farm and farmer characteristics, motivations, challenges, interests, and experiences. We mailed the surveys to our list of organic farmers and enclosed a postage paid return envelope to encourage returns. The response rate was greater than 35%.

While we focus on the most recent results in this report, we do include some of the data from the 2014 survey when the comparisons seem interesting.

Many organic farms are diversified, but we asked respondents to identify their primary organic enterprise and analyzed the data accordingly. Crop farmers returned the greatest number of surveys (125 in 2014; 170 in 2020) followed by dairy (63/52). In 2014, there were 13 fruit and 21 vegetable growers, whereas in 2020, there were 8 and 21 respectively. There is also a category for "other livestock." Since the type of production in that category is so varied and can include beef, poultry, sheep, and goats, and since many organic meat producers choose not to certify their livestock, we are not reporting results from that category here.

In general, organic farmers are slightly younger than their conventional counterparts and getting younger. The average age of our survey respondents decreased from 55.7 years in 2014 to 52 years in 2020. (In the 2017 Census of Agriculture, NASS reported the average age of principal farm operators in Minnesota at 57.4 years). Our surveys show the average age of the organic fruit producers as youngest, but it seems that may change in the future because of younger crop and dairy farmers (Table 4).

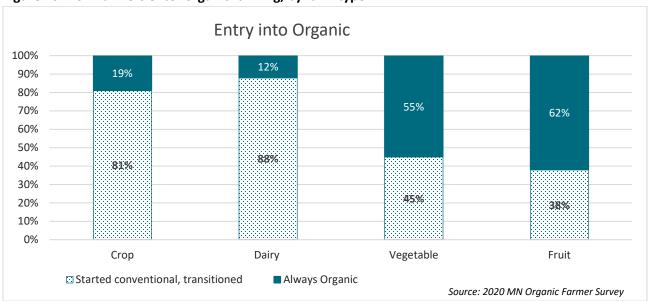
Table 4. Age of Minnesota farmers as of Dec. 31, 2019, by principal type of production

Type of Production	Crop	Dairy	Vegetable	Fruit	ALL
Average age	54	52	53	46	52
Age range	21-84	23-83	40-70	28-57	21-84

Source: 2020 MN Organic Farmer Survey

How these farmers entered organic farming does differ by farm type, however. Most Minnesota crop and dairy farmers started their careers as conventional producers, while most fruit and vegetable farmers have been organic since they started farming (Figure 10).

Figure 10. How farmers enter organic farming, by farm type



Operation size varied by type as well. Fruit and vegetable farms tended to be smaller than crop and dairy farms in terms of gross farm revenue, with most operations reporting gross revenue under \$50,000. The revenue distribution for crop and dairy operations was more widely distributed (Figures 11-14).

Figure 11. 2020 annual gross income, cropping operations

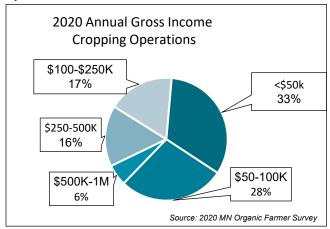


Figure 12. 2020 annual gross income, dairy operations

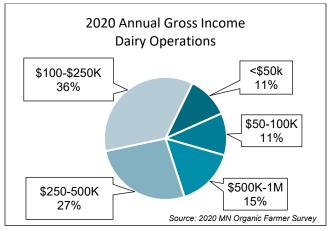


Figure 13. 2020 annual gross income, vegetable operations

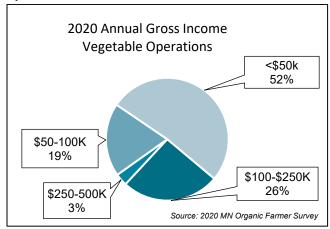
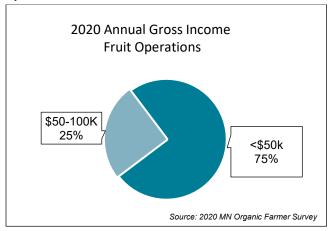
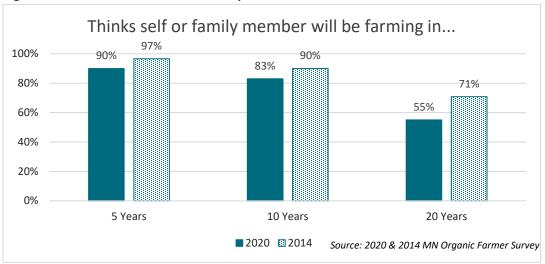


Figure 14. 2020 annual gross income, fruit operations



Organic farmers are fairly optimistic about the future of their farms. Even in 2020 amid the uncertainties created by COVID-19 (survey was mailed in late March), over 50% said they believed their farm will still be in operation 20 years into the future (Figure 15).

Figure 15. Believe farm will still be in operation in future



As a whole, 52% of survey respondents in 2020 said they thought organic production costs were higher than conventional, but more (74%) said they thought organic farming was more profitable. It's interesting to compare these opinions with actual organic farm data in the FINBIN database. Figures 16 and 17 show expenses and returns for the conventional and organic corn and dairy farmers who reported their data (averaged over the five years between 2015 and 2019). The cost of production on organic farms was lower in both cases. And while production on organic farms was lower (124 bu corn/acre on organic farms compared to 192 bu on conventional farms and 15,019 lb milk/cow on organic farms compared to 24,351 lb milk/cow on conventional dairies), at that time, average prices received were \$5.69 higher per bushel of organic corn and \$14.88 higher per hundredweight of milk, so net returns for the organic enterprises were higher. The 5-year average prices for corn that Minnesota farmers realized between 2015-2019 was \$9.09/bu for organic and \$3.40/bu for conventional, according to FINBIN data. For dairy, prices received were \$32.21/cwt for organic milk compared to \$17.34/cwt for conventional.

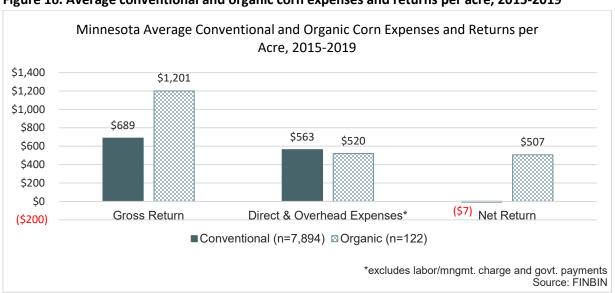
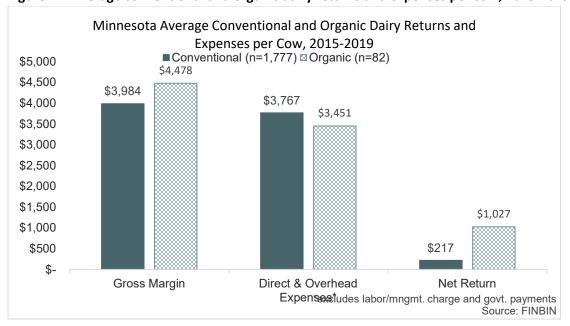


Figure 16. Average conventional and organic corn expenses and returns per acre, 2015-2019





In both 2014 and 2020, well over half of farmers said that premium prices were a major factor in their decision to farm organic. Their responses showed that other factors, such as health/safety, environment/conservation, philosophy/ethics, and personal satisfaction ("I enjoy farming this way") were even more important to them (Figure 18).

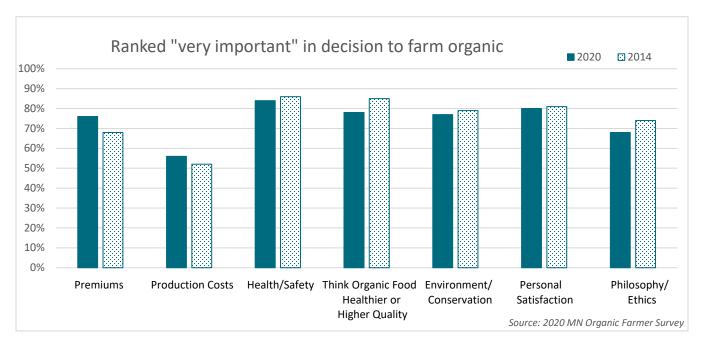


Figure 18. Reasons for farming organic

Organic farming has a reputation for being labor intensive. Table 5 shows the average number of full and part time employees by type of operation. Crop farms used the least amount of labor. Dairy farms tended to employ more full-time employees, whereas fruit and vegetable operations used more part-time help.

Table 5. Organic farm labor use, 2020 (average number of people who work on the farm, including self, family, hired)

Type of labor	Crop	Dairy	Vegetable	Fruit	ALL
Full-time	2	2.4	1.8	2.3	2.2
Part-time	3	2.2	3.6	3.3	2.8

Source: 2020 MN Organic Farmer Survey

Our surveys also asked farmers about the production challenges they face. Table 6 shows the five biggest production challenges each type of farmer reported in both 2014 and in 2020. Some topics, like competition from imports for crop producers and weed control for fruit and vegetable producers, remained consistent over time. Many—like extreme weather, the cost of health insurance and land costs—were common to more than one type of organic farm.

Table 6. Respondents' top five production challenges (unordered)

Production Challenge	2014 Crop Farmers	2020 Crop Farmers	2014 Dairy Farmers	2020 Dairy Farmers	2014 Fruit & Vegetable Farmers	2020 Vegetable Farmers	2020 Fruit Farmers
Cost of organic seed			Х				
Cost of organic feed			Х				
Cost of fuel			Х				
Insect pests other than soybean aphid					х		
Weed control			Х		Х		х
Extreme weather	Х	Х	Х	Х		Х	х
Labor availability						Х	Х
Labor cost						Х	Х
Land cost (purchase price or rental rates)	Х	х		Х			
Cost of health insurance	Х	Х		Х	Х	Х	Х
Competition from organic imports	х	х		х	х	Х	
Public confusion about what "organic" means or competition from labels like "natural"	х	х		х	х		

Source: 2014 & 2020 MN Organic Farmer Surveys

Our survey also asked farmers what research topics are most important to organic agriculture in Minnesota (not just to their own operations). Table 7 provides more detail and shows the top five research topics they rated "very important" in both 2014 and 2020. Soil health and soil fertility were very important to every type of producer.

Table 7. Respondents' five "most important" research topics for Minnesota organic agriculture (unordered)

Research Topic	2014 Crop Farmers	2020 Crop Farmers	2014 Dairy Farmers	2020 Dairy Farmers	2014 Fruit & Vegetable Farmers	2020 Vegetable Farmers	2020 Fruit Farmers
Consumer attitudes/ behavior			X				
Economics of organic farming				Х		х	х
GMO pollen drift	Х				X		
Insect pests & pest management							х
Livestock health			Х	Х			
Milk quality			Х	Х			
Organic food quality/ safety studies		Х					
Organic food nutrition studies					Х	Х	
Plant diseases							х
Soil fertility	Х	Х	Х	Х	Х	Х	Х
Soil health/ biology	Х	Х	Х	Х	Х	Х	х
Weed management	Х	Х			Х	Х	
Yields/ production	Х	Х					

Source: 2014 & 2020 MN Organic Farmer Surveys

Current State and Federal Programs Directed Toward Organic Agriculture

Minnesota Department of Agriculture

The MDA has provided dedicated support to organic and prospective organic farmers and handlers since the 1980s.

Recent and ongoing offerings and activities include the following (items with a * are not exclusive to organic, but are available to and used by organic operations):

- Minnesota Organic Conference (annual)
- Organic Certification Cost-Share
- Transition to Organic Cost-Share
- <u>Directory of Minnesota Organic Farms</u>
- List of USDA-Accredited Certifiers that serve Minnesota
- <u>Driftwatch™</u> sensitive crops registry*
- Organic Farm: Please Do Not Spray signs
- Sustainable Agriculture Grants*
- Value-Added Grants*
- <u>Livestock Investment Grants</u>*
- Food Business Development New Markets*

Here are some highlights of several of these programs:

Minnesota Organic Conference

Since 2003, MDA staff have coordinated an annual two-day Minnesota Organic Conference that occurs in early January in Saint Cloud. The conference is farmer-focused and includes topics for prospective, beginning, intermediate, and seasoned organic producers. An 80-vendor trade show compliments an educational program with 36 breakout sessions. A list of breakout topics the conference has offered since 2017 is provided in Appendix B. Attendance grew from about 200 attendees in 2003 to 523 in 2019, and there is typically a waiting list for vendors who want booths in the trade show. We require the conference caterier to source organic and Minnesota-grown ingredients, and we tap local, regional, and nationally known presenters, including farmers, university and extension personnel, nonprofit leaders, and experts from private industry.

Organic Certification Cost-Share Program

In 2000, Minnesota pioneered a program to refund farmers a portion of the cost to obtain organic certification. The idea was picked up at the national level and was subsequently implemented at the federal level. The Organic Certification Cost-Share Program (OCCSP) has been funded through the Federal Farm Bill since 2002, except for 2013-2014.

The program provides relief from the cost of the certification that is required by USDA. Until 2019, certified organic farmers and handlers could be reimbursed for 75% of their certification costs, with a cap of \$750 per category (e.g., a dairy farmer certified for crop and livestock or a crop producer also certified for on-farm processing was eligible for \$1,000). Starting in 2020, the rate changed to 50% of certification costs, with a cap of





\$500 per category. State departments of agriculture and the USDA Farm Service Agency administer the funds. MDA staff put a great deal of effort into publicizing the cost share opportunity in Minnesota and work directly with certifying agencies to make the application process as simple and streamlined for applicants as possible. Participation in Minnesota's program has increased annually except for 2020, as shown in Table 8.

Table 8. Organic Certification Cost-Share Program participation

* In 2020, the program changed to reimbursing 50% of certification costs (from 75%) with a limit of \$500 (from \$750)

Year	# Farmers	# Handlers	Total Disbursed
2016	404	98	\$399,589
2017	368	118	\$375,385
2018	428	117	\$438,961
2019	433	124	\$430,533
2020*	380	94	\$251,851

Transition to Organic Cost-Share

In 2013, on the advice of the OATF, the MDA started a similar cost-share program for farmers in transition to organic. The program is designed to encourage transitioning farmers to start working with a certifying agency early in their transition. This way, they have a reliable source of information regarding practices and inputs that are (and are not) allowed, and they can go through one or more "practice" on-farm inspections. The MDA reimburses 75% of the cost of hiring the certifying agency, soil testing, and attending an organic conference in Minnesota or a neighboring state. Participation has been low, and we are considering new outreach strategies to increase the number of farmers it serves. We find that it's difficult to identify farmers who are in transition – they are not on anybody's radar screen until they contact a certifying agency and declare their intention to certify. In addition, these farmers may not perceive a benefit to working with (and paying for) a certifier until they are ready to certify – even if 75% of the cost is covered.

Several other states have heard about the transition program and contacted our staff to learn more about the program, with Iowa most recently expressing interest.

Organic activities by partner organizations

University of Minnesota (U of M)

The U of M has active teaching, research, and extension programs related to organic food and agriculture. It is one of only six land grant universities to receive a perfect rating in the Organic Farming Research Foundation's 2012 Organic Land Grant Assessment.

The U of M was also identified as a leader in Organic Research and Outreach in the North Central Region published by CERES Trust in February 2015. That report noted:

With more than 1,000 acres used for organic research, a 110-cow certified organic research dairy herd, and an organic track as part of the Sustainable Agriculture & Food Systems undergraduate majors, the University of Minnesota has major investments in their organic research capacity. The UMN organic research and outreach program involves faculty from agronomy, horticulture, economics, entomology, animal science, veterinary medicine, and food science. The UMN hosts annual organic crop and dairy field days and provides a wide variety of Extension publications, refereed articles, and web resources.

The following is a brief overview of the University's research, extension, and teaching activities related to organic food and agriculture.

Research and extension

The U of M currently has more than 20 ongoing research and extension projects that focus on organic food and agriculture. Many involve collaboration across disciplines and locations, and most are externally funded.

- Cropping systems: Current projects focus on a wide range of issues including weed control, cover crops, plant breeding, soil health, insect pest control, tillage systems, and integrated crop/livestock systems.
 This work also includes variety screening and nutrient management trials for crops relevant to emerging farmers.
- **Ecosystem service monitoring:** Research is underway to measure the potential environmental improvements made possible by organic production including carbon sequestration, water quality benefits, and improved soil health.
- **Economics:** Researching organic price premiums at retail and their transmission into farm prices to improve our understanding of the functioning of organic markets. Economic research also includes current work investigating economics related to non-chemical pest management in apple, and organic control of spotted-wing Drosophila in strawberries.
- Horticultural systems: Current projects focus on strategies to improve soil health via cover crops for
 organic pepper production, soil health improvement through summer cover crops in broccoli and
 lettuce, organic management of invasive insect pests on fruit and vegetables, and to screen for varieties
 of broccoli with tolerance to common pathogens.
- **Livestock systems:** An active research and extension program at the West Central Research and Outreach Center in Morris, MN focuses on genetics of livestock, calf rearing and housing, alternative strategies to improve animal well-being, forage production systems, and renewable energy for organic dairy production.

The Southwest Research and Outreach Center in Lamberton continues to host an annual field day focusing on organic production each July. The West Central Research and Outreach Center in Morris hosts an Organic Dairy Day each August.

Education

The U of M offers two undergraduate majors that give students an opportunity to focus on organic food production – Sustainable Agriculture & Food Systems and Plant Science. The Sustainable Agriculture & Food Systems major specifically includes a track on "Organic and Local Food Production." The University also offers a

graduate minor in Sustainable Agriculture Systems that requires both coursework and an internship specifically related to sustainable agriculture.

Cornercopia, the University's 6-acre student organic farm, gives students opportunities to learn firsthand what it takes to plan, grow, and market food through coursework, internships, volunteer work, and other activities. Each year, students produce fruits and vegetables and market them on the Twin Cities campus or provide them to the University of Minnesota food shelf initiative, NutritiousU, to help alleviate food insecurity in the student population. The HORT 3131 Student Organic Farm: Planning, Growing, and Marketing fall course offers students specific training in farm planning for organic production, organic soil management approaches, and adding value to organic produce. A subsequent course, HORT 3096 Practical Approaches to Organic Production, is taught in the spring and offers a 7-week hands-on immersive training to prepare the student farm for summer production.

USDA Natural Resources Conservation Service (NRCS)

The NRCS is the USDA's principal agency for providing conservation technical assistance to private landowners, conservation districts, Tribes, and other organizations. NRCS draws on a long history of helping people help the land. For 86 years, NRCS and its predecessor agencies have worked in close partnerships with farmers and ranchers, local and state governments, and other federal agencies to maintain healthy and productive working landscapes.

NRCS offers voluntary programs to eligible landowners and agricultural producers to provide financial and technical assistance to help manage natural resources in a sustainable manner. Through these programs the agency provides financial assistance for planning and implementing conservation practices that address natural resource concerns or opportunities to help save energy, improve soil, water, plant, air, animal and related resources on agricultural lands and non-industrial private forestland.

The following NRCS programs offer financial assistance for organic or transitioning producers:

- The <u>Conservation Stewardship Program (CSP)</u> helps agricultural producers maintain and improve their existing conservation systems and adopt additional conservation activities to address priority resource concerns. Participants earn CSP payments for conservation performance—the higher the performance, the higher the payment. Through CSP, participants can take additional steps to improve the resource conditions on their land including soil, air and habitat quality, water quality and quantity, and energy conservation.
- The Environmental Quality Incentives Program (EQIP) provides financial and technical assistance to agricultural producers in order to address natural resource concerns and deliver environmental benefits such as improved water and air quality, conserved ground and surface water, reduced soil erosion and sedimentation, or improved or created wildlife habitat. The Organic Initiative through EQIP provides financial assistance to implement a broad set of conservation practices to assist organic producers in addressing resource concerns. Producers can apply through the Certified Organic or Transitioning to Organic funding categories. NRCS encourages organic producers to apply in these categories, but they can apply in any of the agency's funding categories. Table 9 shows EQIP Organic and Transitional project funding in Minnesota since 2016.

Table 9. NRCS-EQIP organic farmer participation and funding in Minnesota, 2016-2020

* In 2020, Certified Organic and Transitional Organic funding pools were combined into one funding pool to encompass all organic whether it be certified or transitioning.

Year	# Certified Organic Contracts	Value	# Transitional Organic Contracts	Value
2016	6	\$25,510	3	\$15,421
2017	9	\$108,184	8	\$46,632
2018	11	\$87,296	5	\$46,414
2019	10	\$55,362	7	\$46,456
2020*	0	\$0	5	\$233,006
Totals	36	\$276,352	28	\$387,930

USDA Minnesota Farm Service Agency (FSA)

Each year, FSA attends the Minnesota Organic Conference and provides an educational booth about FSA services and staff, visiting with attendees about what FSA is and how the agency can help organic producers. Historically, FSA has also sent staff to attend the regional MOSES Organic Conference in Wisconsin to share information and to learn.

FSA staff take a USDA internal "Organic 101" training, and several staff members from county offices and the state office have received additional training. Minnesota FSA staff also participate in an internal USDA Organic Champions team and serve on the MDA's Organic Advisory Task Force.

The FSA plays a vital role in transitioning the next generation of farmers into farming through the loan programs it offers. FSA makes direct and guaranteed operating and farm ownership loans to eligible farmers and ranchers. FSA also offers a Direct Operating Microloan program, which is designed for small and beginning farmers. It requires less paperwork and offers expanded eligibility requirements compared to other loans. The program has been very successful and now includes Direct Farm Ownership loans.

The Farm Storage Facility Loan Program (FSFL) provides low interest financing producers can use to build or upgrade storage or handling facilities. In addition, the Noninsured Crop Disaster Assistance Program (NAP) provides financial assistance to producers of organic and conventionally grown crops that do not qualify for coverage under traditional crop insurance plans. There is an organic price option available when securing NAP coverage.

In 2017, FSA started offering the Organic Certification Cost Share Program (OCCSP) alongside MDA, providing cost share assistance to producers and handlers of agricultural products who are obtaining or renewing their certification under the NOP.

USDA Risk Management Agency (RMA)

RMA authorizes crop insurance coverage for organic producers and for producers transitioning to organic production. While recognizing organic good farming practices, RMA continues to improve viable and effective risk management options for organic production systems through new and innovative programs, including the Whole Farm Revenue Protection policy and newly added 2022 Micro Farm provisions. These options provide a risk management safety net for all commodities on the farm under one insurance policy. RMA also offers an organic contract price option and organic premium price elections that allow farmers to protect the market value of their organic crops more accurately.

Through 2020 and 2021 COVID relief, RMA allowed producers to report acreage as certified organic or transitional organic, when the producer certifies they have requested a written certification from a certifying agent by the acreage reporting date. RMA made this flexibility permanent for the 2022 crop year. This change addresses producers' inability to have organic plans and certificates by their crop insurance policy acreage reporting date. The cumulative effect of these efforts is a strong farm safety net for organic producers.

Insurance experience for Minnesota organic crops

Table 10 illustrates organic net insured acres in Minnesota, which has nearly doubled from 2015 to 2020. This yearly increase in acres is approximately 12% each year, on average. With this increase in participation, RMA continues to improve risk management options for organic production systems, including expanding the availability of premium price elections for organic crops from 47 crops in 2015 to 84 crops nationwide in 2022.

Table 10. Minnesota organic net insured acres

Crop Year	Acres
2015	59,511
2016	67,186
2017	72,385
2018	78,189
2019	94,691
2020	102,764
Grand total	474,726

Organic industry education

RMA provides educational opportunities through the Risk Management Education & Outreach program (RME). RMA works with partners to assist producers, especially historically underserved farmers and ranchers, in effectively managing long-term risks and challenges. From 2002 to 2018, RMA provided annual funding for risk management education projects, supporting more than \$126 million worth of projects in historically underserved communities. In 2018, the RME program provided \$496,000 awarded to recipients through the St. Paul RMA Regional Office, which serves Minnesota, Iowa, and Wisconsin. These awarded projects included materials and resources for organic record keeping, organic crop insurance options, marketing, organic management, and diversification. On January 10, 2022, RMA announced it would invest up to \$2 million in cooperative agreements for 2022.

Each year, RMA employees routinely attend trainings and conferences to further their knowledge of organic production, present about current RMA programs that may benefit the organic community, and foster partnerships with organizations. In 2021, the St. Paul RMA Regional Office attended industry conferences and grower meetings, presenting information about organic coverage and the Whole Farm Revenue Protection policy. Some examples of these events and organizations include:

- Minnesota Organic Conference
- MOSES Organic Conference and sponsored field days
- Upper Midwest Fruit & Vegetable Growers Conference
- Organic Field Day at University of Minnesota Southwest Research and Outreach Center, Lamberton
- Great Plains Growers Conference
- Center for Rural Affairs
- Organic Agronomy Training Service (OATS)
- FSA & RMA Webinar on Farm Insurance for Fruit, Vegetable, and Specialty Crop Growers
- Iowa State Extension podcast on Whole Farm Revenue Protection
- Minnesota Fruit & Vegetable Convention
- Minnesota fruit & Vegetable Growers Association
- Canola Growers Annual Symposium

Learn more about RMA

RMA's <u>Organic Crops website</u> has more information on risk management tools available for organic farmers. Crop insurance is sold and delivered solely through private crop insurance agents. Visit the <u>RMA website</u> to learn more about the RMA, crop insurance, and the modern farm safety net.

Recommendations

Previous recommendations – progress toward goals

Tables 11 to 15 reflect activity and progress on recommendations contained in the 2015 Status of Organic Agriculture in Minnesota report, using this scale: substantial progress (+++); modest progress (++); little progress (+); and no progress (-).

Table 11. Education and information

2015 Recommendation	Progress	Activities
Continue the Minnesota Organic Conference (MOC). Collaborate with partners, attend field days.	++	MOC attendance has been holding steady.
Provide reliable and unbiased information to organic, perspective organic producers, and other stakeholders.	+++	Provided by links on MDA Organic website, networking, and email/phone communication.
Investigate and quantify environmental consequences of organic farming. Develop management practices that mitigate negative consequences; promote environmentally sustainable organic practices.	++	MDA funded four Sustainable Agriculture Demonstration Grant projects on organic farms between 2016 and 2020.
Enhance undergraduate and graduate organic curricula at U of M and encourage colleges in the Minnesota State Colleges & University System to include organic topics in their curricula.	++	Recommendations have been supported by the OATF and letters of support have been shared with the U of M. Collaboration with Minnesota State Farm Business Management to promote organic benchmarking.
Increase outreach to nontraditional farmers.	+	MDA Ag Marketing and Development Division has increased its outreach to and interaction with nontraditional (including immigrant) farmers. Most assistance has been in the areas of beginning farmer issues, and participation in the Emerging Farmers Working Group.

Table 12. Marketing and promotion

Recommendation	Progress	Activities
Encourage expansion of certified organic processing and distribution capacity.	+++	MDA Value Added Grant program has funded at least 32 organic projects, products, or companies since 2016. Awards are listed at https://www.mda.state.mn.us/business-dev-loansgrants/agri-value-added-grant-past-projects
Maintain the MDA Organic Network Listserv	-	Decommissioned by MNIT in 2017.
Encourage the purchase of local organic products through programs like Minnesota Grown.	++	As of 2020, Minnesota Grown had 45 certified organic members. Some use the Minnesota Grown Organic logo.

Table 13. Technical and financial assistance

Recommendation	Progress	Activities
Develop programs to provide assistance to farmers during transition.	++	MDA created a transition assistance program in 2011. Several states have inquired about it; Iowa has replicated it.
Facilitate connections between food companies and organic producers and identify domestic and international opportunities.	+	MDA Food Business Development program specifically helps food businesses, and MDA staff can assist with an export plan.
Continue to offer Organic Certification Cost Share.	+++	MDA continues to administer federal organic certification cost share funds.

Table 14. Policy and regulation

Recommendation	Progress	Activities
Inform agricultural leaders, organic farmers, and consumers about organic laws and regulations, including crop insurance.	++	Provided information to constituents via OATF meetings and email communications via U of M Minnesota Institute for Sustainable Agriculture listserv.
Monitor labeling claims such as "Non-GMO" and "Natural," considering organic producer, processor, and consumer interests.	+	Provided sessions at the MOC.
Increase penalties for pesticide drift incidents and prohibit pesticide application on roadsides/right of ways that adjoin certified organic land.	-	We did not pursue this project.
Help organic farmers protect the integrity of organic crops and livestock with regard to spray drift. Offer no-spray signs, a sensitive crops registry, and clear avenues for reporting drift.	+++	Continue to distribute organic signs. Implemented Driftwatch™ sensitive crops registry www.driftwatch.org. Provided educational sessions about drift law and reporting at MOC. Reminded growers seasonally of pesticide drift hotline.

Table 15. Research

Recommendation	Progress	Activities
Support research at the U of M Southwest Research and Outreach Center, along with research at the West Central Research and Outreach Center.	++	Recommendations and letters of support have been made by the OATF and shared with the U of M.
Investigate research questions germane to organic production and handling, guided by stakeholder interests, needs, and priorities.	+++	U of M obtained state, federal, and private funding for numerous organic research/outreach projects involving crops, soils, horticulture, animal and veterinary science, entomology, economics, nutrition, and food science.

Current recommendations

The MDA recommends that we, the U of M, and other partners in the state undertake a number of efforts to support and expand the growth of Minnesota's organic agriculture sector and the interests of producers, value-added businesses, consumers, and associated services it comprises. These recommendations are based on input contributed by the Minnesota OATF, survey responses by organic farmer stakeholders, the experiences of organizational partners, and other direct input to the MDA from the organic community.

Programs

- Continue to provide reliable, unbiased information to organic and prospective organic producers and handlers, consumers, and other stakeholders, referring them to other partners as appropriate.
- In collaboration with partners, monitor organic/prospective organic producers' information needs and deliver programs like the Minnesota Organic Conference, stand-alone workshops, and field days.
- Facilitate connections between organic farmers and organic food companies. Help both identify and pursue domestic and international marketing opportunities.
- Continue to administer federal organic certification cost share funds and expand transition to organic cost share program (NOTE: this will require additional funding).
- Continue statutory responsibility to investigate and respond to pesticide drift complaints. Provide
 collateral materials like Please Do Not Spray signs and support services such as the Driftwatch[™] registry
 that help organic producers make applicators aware of their status.
- Ensure that organic producers and organic companies know about their eligibility for MDA programs like the Value-Added Grant Program, Livestock Investment Grant Program, Sustainable Agriculture
 Demonstration Grant Program, Specialty Crop Block Grant Program, and loans.
- Encourage colleges in the Minnesota State and Colleges & Universities system to include organic topics in their applied agriculture curricula.
- Enhance undergraduate and graduate organic curricula at the U of M both in and beyond the Colleges of Food, Agriculture, and Natural Resource Science and Veterinary Medicine. Continue to offer hands-on organic learning opportunities such the U of M student organic farm and graduate assistantships.

Policy and regulatory support

- Keep Minnesota agricultural leaders, organic farmers, and consumers informed about proposed changes to organic laws and regulations that could affect them, and comment as appropriate.
- Consider working to prohibit pesticide application on roadsides and rights of way that adjoin certified
 organic land when requested by the organic farm operator, provided that a noxious weed management
 plan is in place.

Research

- Continue support for both long-term and short-term organic cropping systems research at the U of M Southwest Research and Outreach Center and for organic dairy research at the West Central Research and Outreach Center.
- Pursue applied research in areas that are high priority for organic producers, including: crop and
 livestock breeding for organic systems; soil health and fertility; weed management; insect pest
 management; physical and economic implications of GMO pollen drift; food safety protocols that
 comply with organic standards; nutritional composition of organic foods; barriers to adoption
 (transition); and organic farm profitability.
- Regularly interact with MN OATF members, organic farmers, and organic handlers to learn about emerging research and information needs. Actively engage organic farmers (or handlers, as appropriate) in designing and carrying out experiments and outreach.
- Ensure that researchers who have organic interests know about legislatively funded research
 opportunities administered by the MDA (e.g., Crop Research Grants, Agriculture Research, Education,
 Extension and Technology Transfer Program, and Sustainable Agriculture Demonstration Grants).
- Glean information on organic trends within and outside Minnesota from public and private data sources and share this information and opportunities with stakeholders and partners.

References

Agricultural Marketing Service. 2021. <u>National organic grain and feedstuffs – biweekly</u> (https://www.ams.usda.gov/market-news/organic-market-news-reports). USDA. Greeley, CO.

Agricultural Marketing Service. 2018. <u>Organic Research, Promotion, and Information Order; Termination of Rulemaking Proceeding</u> (https://www.federalregister.gov/d/2018-10131). USDA. Washington, D.C.

Consumer Reports. 2016. <u>The Difference Between Labels on Organic and 'Natural' Foods</u> (https://www.consumerreports.org/natural-foods/the-difference-between-labels-on-organic-and-natural-foods/).

Food Dive. 2019. <u>Millennials and Hispanics Drive Boost in Organic Sales</u> (https://www.fooddive.com/news/millennials-and-hispanics-drive-boost-in-organic-sales/545237/).

Food Navigator. 2020. <u>Hartman Group: Organic 'is still meaningful but ... doesn't symbolize everything'</u> <u>Consumers Want</u> (https://www.foodnavigator-usa.com/Article/2020/06/11/Hartman-Group-Organic-is-still-meaningful-but-doesn-t-symbolize-everything-consumers-want).

National Organic Program. 2020. <u>Data history, Organic INTEGRITY database</u> (https://organic.ams.usda.gov/Integrity/Reports/DataHistory.aspx). Agricultural Marketing Service. USDA. Washington, DC.

National Agriculture Statistics Service. 2019. <u>Quick stats – Minnesota</u> (https://quickstats.nass.usda.gov/). USDA. Washington, DC.

Organic Market Info. 2020. <u>OTA: Consumers Value Organic More Then Ever</u> (https://organic-market.info/news/poll-shows-consumers-value-organic-more-then-ever-in-pandemic.html).

Organic Produce Network. 2017. <u>Regenerative Organic Certification is 'serious' risk to USDA's organic label, says OTA</u> (https://www.organicproducenetwork.com/article/322/regenerative-organic-certification-is-serious-risk-to-usdas-organic-label-says-ota).

Organic Trade Association. 2017. <u>Today's Millennial: Tomorrow's Organic Parent</u> (https://ota.com/news/press-releases/19828).

Organic Trade Association. 2019. <u>U.S. Organic Sales Break Through \$50 Billion Mark in 2018</u> (https://ota.com/news/press-releases/19828).

Organic Trade Association. 2020. <u>COVID-19 Will Shape Organic Industry in 2020 After Banner Year in 2019</u> (https://ota.com/news/press-releases/21328).

Penn State Extension. 2020. <u>Trends in Organic Sales and Products</u> (https://extension.psu.edu/trends-in-organic-sales-and-products).

Store Brands. 2019. <u>Organic: Private Label's Continued Opportunity</u> (https://storebrands.com/organic-private-labels-continued-opportunity).

The Hartman Group. 2017. Who's Buying Organic Foods? (https://www.hartman-group.com/infographics/321406643/whos-buying-organic-foods).

The Hartman Group. 2020. <u>Organic and Beyond 2020 [PowerPoint slides, PDF]</u> (https://s3.us-west-2.amazonaws.com/storage.www.hartman-group.com/videos/glQQDDbfknOgMW08L2L9NXCKm5H3WPCd8XWfqnSM.pdf).

The Hartman Group. 2020. <u>The Culture of Organic Today: Who Buys Organic and Why</u> (https://www.hartmangroup.com/newsletters/1291505642/the-culture-of-organic-today-who-buys-organic-and-why).

Willer, H., Schlatter, B., Trávníček, J., Kemper, L., & Lernoud, J. 2020. The World of Organic Agriculture 2020: Key data (2018 data). In https://www.organic-world.net/yearbook/yearbook-2020/pdf.html). Research Institute of Organic Agriculture (FiBL). Frick, Switzerland and International Federation of Organic Agriculture Movements. Bonn, Germany.

YouGovAmerica. 2019. Millennials' Food Choices are Driven by Quality and They're Willing to Pay More for It (https://today.yougov.com/topics/consumer/articles-reports/2019/09/09/millennials-food-choices-are-driven-quality).

Appendix A. 2020 Minnesota Organic Farmer Survey

March 2020

Dear Organic Grower:

Every couple of years, the Minnesota Department of Agriculture surveys organic farmers to learn about how organic agriculture is developing in Minnesota and what organic farmers need. You can see results of recent surveys at www.mda.state.mn.us/organic.

This year, we are asking 27 questions about you, your operation, and your opinions. Please return one survey per farm in the enclosed envelope before **May 8, 2020**. If a question does not apply, just leave it blank. **If you have questions or you are <u>not</u> a certified organic grower and want to be removed from our mailing list, please call Cassie at 651-201-6134**. The survey is voluntary and all individual responses will remain confidential. Thanks for your help.

- 1. How old were you on December 31, 2019?
- 2. Mark which applies:
 - a. Entire operation certified organic
 - b. Some certified organic, some in transition
 - c. Split operation: certified organic & conventional
 - d. Organic, exempt from certification
 - e. Does not apply: I am not/no longer organic
- 3. How many years have you operated a farm?
- 4. How many years have you farmed certified organic?
- 5. Name of current certifying agency(ies):
- 6. How did you start farming organic?
 - a. Started out as conventional and transitioned to organic
 - b. Have always farmed organically
 - c. Other
- 7. What was your **primary** organic farming enterprise in 2019? (mark only **ONE**)
 - a. Cash crop (grains, oilseeds, and/or hay, etc.)
 - i. Food grade
 - ii. Feed grade
 - iii. Both
 - b. Dairy
 - c. Other livestock (including beef, poultry, sheep, goats, etc.)
 - d. Vegetables
 - e. Fruit
 - f. Other:
- 8. Last year (2019) did you:
 - a. Increase organic acreage or livestock numbers
 - b. Decrease organic acreage or livestock numbers
 - c. Maintain current organic acreage or livestock numbers
 - d. Why?
- 9. During the next five years, do you intend to:
 - a. Increase organic acreage or livestock numbers
 - b. Decrease organic acreage or livestock numbers
 - c. Maintain current organic acreage or livestock numbers
 - d. Why?

·	our experience, how do the production costs of a. Organic costs are higher b. They are about the same c. Organic costs are lower	organic farr	ning com	pare with c	onventional?	
	our experience, how does the profitability of org a. Organic is more profitable b. They are about the same c. Organic is less profitable	ganic farmin	g compai	e with con	ventional?	
	you buy crop insurance for your organic producti a. Yes b. No	on?				
	v many people (incl. self, family, hired labor) wor a. Full-time: b. Part-time:	k on the far	m?			
	you think you or a family member will be farming a. In 5 years?	J				
15. Hov	v important are the following in YOUR decision to	o farm orga	nically?			
	Reason	No Impor		Slightly nportant	Very Important	
a.	Price premiums					
b.	Production costs					
c.	Health/safety (self, family, farm employees)					
d.	Think organic food is healthier or higher quality					
e.	Environmental/conservation reasons					
f.	Personal satisfaction – I enjoy farming this way					
g.	Philosophical/ethical reasons					
h.	Other (explain)					
16. How important are the following research topics to organic agriculture in Minnesota?						
	Research Topic	Not Important	Slightly Importan	Moderate t Importa	,	No Opinion
a.	Consumer attitudes/behavior					
b.	Economics of organic farming					
C.	GMO pollen drift					
d.	Insect pests and pest management					
e.	Livestock health					
f.	Milk quality					
g.	Organic crop/livestock marketing					
h.	Organic food quality/safety studies					
i.	Organic food nutrition studies					

	Research Topic	Not Important	Slightly Important	Moderately Important	Very Important	No Opinion
j.	Organic seed breeding/variety development					
k.	Organic variety trials					
I.	Plant diseases					
m.	Soil fertility					
n.	Soil health/biology					
0.	Strategies for adapting to climate change					
p.	Transition to organic (best practices)					
q.	Weed management					
r.	Yields/production					
S.	Other (explain)					
17. Last	year (2019), how big a challenge were the follo	wing issues	for you?			
	Challenge	Not a Problem	Slight Problem	Medium Problem	Big Problem	Doesn't Apply
a.	Organic seed availability					
b.	Organic seed price					
c.	Organic feed availability					
d.	Organic feed price					
e.	Cost of fuel					
f.	GMO pollen drift					
g.	Herbicide/pesticide drift					
h.	Soybean aphid					
i.	Other insect pests (other than soybean aphid)					
j.	Weed control					
k.	Extreme weather					
l.	Labor availability					
m.	Labor cost					
n.	Land cost (purchase price or rental costs)					
0.	Availability of organic processing					
p.	Transportation for organic crops or livestock					
q.	Cost of health insurance					
r.	Cost of organic certification					
S.	Competition from organic imports					
t.	Public confusion about what "organic" means or competition from labels like "natural"					
u.	Other:					

a. Less than \$50,000 b. \$50,001-\$100,000 c. \$100,001-\$250,000	om an iam	illig:			
d. \$250,001-\$500,000e. \$500,001-\$1,000,000f. Over \$1,000,000					
19. In 2019, what % of this gross annual farm income ca	ame from t	he sale of or	ganic produ	ıcts?	
 20. Did you sell any certified organic product as conventional or non-GMO in 2019? a. Yes, sold some certified organic production as conventional b. Yes, sold some certified organic production as non-GMO c. No, sold all certified organic as organic 					
 21. What kind of marketing help do you or would you find most useful? (check all that apply) a. Grower directories b. Buyer directories c. Seminars to improve marketing skills d. Business planning/business development e. Local or state events where I can meet buyers f. International trade missions g. Other 					
22. How interested are you in using the following market	•	organic pro	duction duri	ing the next	5 years?
Market	Already Use this Market	Not Interested	Slightly Interested	Moderately Interested	Very Interested
 a. Wholesale (to co-op, processor, mill, distributor, broker) 					
 Direct to consumers (at farm stand, farmers' market, CSA, etc.) 					
c. Internet or mail order					
 d. Retailers (to supermarket, natural foods store, etc.) 					
e. Restaurants/caterers					
f. Other institutions (e.g., hospitals, schools)					
 g. Markets that want "seconds" (cosmetically imperfect/less than Grade A) 					
h. Other					
23. How confident are you that the National Organic Statea. Very confidentb. Somewhat confidentc. Not at all confident	andards are	being fairly	and adequa	itely enforce	d?
 24. How do you most like to get information about farm a. Farm papers b. Certifier newsletters c. E-mail d. My own web searches e. Meetings/conferences 	ning and org	ganic topics?	(check all t	hat apply)	

- f. Field days
- g. Conference calls
- h. Webinars
- i. Other
- 25. The MN Organic Conference takes place early January in St. Cloud, MN. Do you attend?
 - a. yes
 - b. no
 - c. if no, why not?
 - i. Time of year
 - ii. Location
 - iii. Cost
 - iv. Doesn't interest me
 - v. Other
- 26. Organic consumer demand has been growing in the U.S., but the number of organic farms and acres has not. Why do you think this is?
- 27. In your opinion, what are the biggest challenges Minnesota organic farmers are currently facing?

Appendix B. Minnesota Organic Conference Educational Breakout Sessions 2017-2020

2020 Organic Crop Insurance Update

Crop Insurance for Organic Farmers

21st Century Farming with Your Mobile Device

CSAs All Year Long

A Weed by Any Other Name: Medicinal & Edible

Dairy Grazing Apprenticeship Panel: Your future is THE future of Dairy

Adaptive High Stock Density Grazing

Plants All Around Us

Dealing with Emotional Stress on the Farm

Animal Welfare and Organics: Pigs and Poultry

Deep Dive Into Biodegradable Mulches and

Compost

Animal Welfare: Why are you looking over my

Deep Winter Greenhouse: Winter Greens for Off-

Season Revenue

Ask a Vet

shoulder?

Demystifying Organic Certification

Ask an Organic Veterinarian

Demystifying Organic Regulations

Ask the Vet

Assessing Soil Quality and Health

Digging In: Gaining a Better Understanding of the

Soil on Your Farm

Back to the Basics: A Unified View of Holistic Animal

Digital Marketing and Social Media for Busy Farmers

Health

Do Compost Extracts Work? How to Test This and

Best Practices in Organic Swine Production

Other Claims

Biological Management and Composting on the Farm

Elderberries: From Hobby to Commercial

Production

Boots in the Dirt: Understanding Organic Farming Challenges

Enhancing Livestock Health on Organic Dairy Farms

Breeding and Genetics on Organic Dairies

Family Farm Estate Planning in Minnesota 2017

Change Your Soil with Cover Crops

Farm to Rural Grocery to Wholesale: Backhauling as

a Market Access Strategy

Community and Farm: A Relationship for the Good

Farmer Panel: Sharing Hands-on Experiences with **Organic Farming**

Cover Crop Mixtures for Organic Grain Farms

Farmers and the Growing Movement to Heal the Earth

Cover Crops in Organic Grain Systems

Farm-to-Grocery: Best Practices for Connecting Local Fresh Produce with Rural Grocery Stores

Creating a Farm That is Strong and Lasting After You Are Gone

Creating Farm Habitats for Pollinators and Beneficial

Insects

Fertility Management on Organic Farms: A Veggie How to Survive as a First Year Farmer **Grower's Perspective** How Weeds Work & What Works for Weeds Financial Management for Organic Farms Identification and Control of Overlooked Diseases in Finca Marta Agroecological Project Aims for Local **Apples** Development Integrated Pest Management for Organic Vegetable FIT Into the Food Regulatory Landscape Producers Fly and Parasite Control for Organic Livestock Integrating Cover Crops into Organic Row Crop **Systems Food Safety for Organic Farmers Integrating Livestock and Grazing Cover Crops** Food Safety, FSMA, GAP Audits—Oh, My! Interseeding and Intercropping Cover Crop and Cash Forage Quality and its Economic Impact in Organic **Crop Systems Dairy Production** It's Nice to Be Nice to the Nice: How Conservation From Field to Bottle: The Story of the Crow River Helps Beneficial Insects SFA Ketchup Project Keep the Next Generation Farming **FSA Opportunities for Organic Farmers** Keynote: A Place At The Table FSMA - Food Safety Made Accessible Keynote: Farming Like We're Here to Stay: The Get Comfortable with Organic Recordkeeping Challenges for Organic Agriculture in Cuba **Growing & Marketing Organic Elderberries** Keynote: Organic Food from Minnesota: Our Roots...Your Future Growing Ginger without a Hoophouse Keynote: The (R)evolution of Indigenous Food Growing Hemp in Minnesota Systems of North America Growing Minnesota Premium Garlic from Planting Keynote: The Forever Green Initiative: Developing to Harvest New Economic Opportunities for Farmers to Change **Growing Organic Fiber and Oil Crops** Minnesota's Agricultural Landscape **Growing Organic Potatoes** Keynote: Why Soil Matters for Your Farm and Beyond **Growing Premium Minnesota Asparagus** Lessons Learned from Organic Farmers in Europe Growing the Perennial Future: Kernza® Managing Canada Thistle Organically High-Impact Marketing on a Low-Impact Budget Managing for Success: Financial Management in **Hi-Tech Organics Turbulent Times** Honeyberries and Currants, Oh My! Mastitis Treatments in Organic Systems How Soils Work: Advanced Soil Health Mechanical Tools for Ecological Weed Control

Microfarming in Minnesota's Driftless Region: Challenges and Opportunities	Poultry on Pasture: What Works			
	Practical Weed Management for Vegetables			
Miffed About Drift? What should you do?	Preventing Paperwork Paralysis			
Minnesota Halal and Kosher Meat Market Study	Recordkeeping: An Essential Tool for Farm Success			
No-Till Soybeans Into Crimped Cereal Rye: Organic Weed Control Made Easy	Rotational Grazing on Organic Farms			
NRCS Programs for Organic and Transitioning Farmers	Season Extension: Year-Round Production in Cold Climates			
On-Farm Research in Deep Winter Greenhouses	Seed Purity in Organic Agriculture			
On-Trend Marketing: Using Instagram	So, You Want to Become an Organic Farmer?			
Organic Apple Orcharding for the Minnesota Hard	Soil Health 101			
Cider Industry Organic Dairy Calf Management	Soil Microbes in Organic Farming: Things we know and things we don't			
Organic Farming of Industrial Hemp	Soil: The World Beneath Our Feet			
Organic Grain Market Update	Soybean Pests and Organic Control Practices			
Organic High Tunnels: Managing Nutrients and Soil	Specialty Foods: New Market Opportunities			
Health with Cover Crops	Spotted Wing Drosophila Management			
Organic Market Update & the Impacts of Imports on the Market	Spotted Wing Drosophila: What We Know and What We Don't			
Organic Pork from A to Z	Spotted Wing Drosophila: What We've Learned in			
Organic Seed: Its History and Current Status	Five Growing Seasons			
Our Farming Journey: Going Around the Organic	Stay Out of Court: Agritourism Health & Safety			
Base Path	Successes and Challenges of Growing Organic Soybeans			
Out of the Shoebox and Into the Fire: Recordkeeping for Organic Certification	Tech in the Field			
Pastured Pigs: Are There Limits?	Telling Your Farm Story			
Pastured Poultry: Different Production Systems, Different Markets	The Family Farm Business: Asset Protection to Business Transition			
Pesticide Drift	The Power of Perennials			
Pesticide Drift and Community Health: What Every Organic Farmer Needs to Know	The Recipe for Weed Control (Ingredients: Rotation, Tillage, Cover Crops, and Fertility)			

The Top Ten: Estate Planning Tips for Farmers

The Value of a Diagnosis: Know Your Enemy

Time for a Transition? Introduction to Organic

Certification

To Be or Not to Be – Making the Transition to

Organics Successfully

Tomatoes Big and Small (and Their Uncommon

Cousins)

Tools and Innovation on the Small Farm

Transitioning Livestock to Organic Certification:

Avoiding the Pitfalls

Urban Agriculture: Creating a Viable Business

USDA Organic Grain and Feedstuffs Market Report

Update

Using Advanced Technology in Organic Row Crop

Systems

Vaccination for Organic Livestock

Weed Management Strategies for Organic

Vegetable Farms

Weed Management Strategies for Organic

Vegetable Farms

What Do You Mean, I Don't Need a License to Sell

This Produce?!

What is Going On Up There? The Landscape of

Organics in Canada

What Your Buyers Aren't Telling You: Opportunities

for Direct Wholesale Marketing

Whisper from the Prairie - a Generational Legacy

(Keynote)

Whole Farm Revenue and Other Crop Insurance

Developments

Written Agreements for Crop Insurance

Your Farm Legacy - the Success Factors

Appendix C. Minnesota Organic Legislative History

- 1985 Minnesota Session Laws, chapter 237, sections 2-6
 - Defines organic food.
 - Defines requirements for growth, composition, and storage of organic food.
 - Authorizes the commissioner of the Department of Agriculture to enforce labeling, sale, and advertising
 of organic food.
 - Allows the commissioner to adopt rules to further clarify organic food standards and marketing practices.
 - Chapter becomes effective April 1, 1986.
- 1987 Minnesota Rules, chapter 1555.0005 1555.0012
 - Defines state organic food and marketing standards.
- 1988 Minnesota Session Laws, chapter 688, article 8, section 1; article 21, section 3
 - Authorizes the commissioner to designate organizations located in the state to certify organic products in the state.
 - Authorizes the commissioner to set certification fees charged to organic producers.
 - Requires certification organization to provide certification to a person whose production meets certification standards and who has paid membership dues and certification fees.
 - Allows certification organizations to draft rules for implementation of the organic certification program for submission to the commissioner.
 - Appropriates \$100,000 for a grant to a certification organization for start-up and initial administrative costs.
 - Appropriates \$50,000 to the Department to administer and enforce the organic food law.
- 1989 Minnesota Session Laws, chapter 350, article 20, section 14
 - Appropriates \$100,000 for a grant to a certification organization to continue the certification process authorized above.
- 1990 Minnesota Session Laws, chapter 547, sections 3-4
 - Allows the commissioner to designate certification organizations outside Minnesota to certify organic products in the state.
 - Removes the commissioner's authority to set certification fees.
 - Removes the requirement to pay membership dues as a certification requirement.
 - Requires that Minnesota grown organic products must be certified by a designated certification organization in order to be labeled "certified."
 - Requires that certified organic products sold in the state must be certified by a designated certification organization or by a certification organization approved by the commissioner
 - Establishes the Minnesota Organic Advisory Task Force.
 - Requires the commissioner to seek evaluation and recommendation of the task force before approving certification organizations.

- 1990 Minnesota Rules, chapter 1556.0200 1556.0227
 - Provides the requirements for certification of products produced, processed, and distributed under Minnesota organic standards.
- 1999 Minnesota Session Laws, chapter 231, sections 11, 26-27, 56-57
 - Appropriates \$50,000 per year to the Department for annual organic certification cost share payments to farmers and for organic market and program development.
 - Adds two organic farmers to both the sustainable agriculture grant review panel and the shared savings loan review panel.
 - Expands the duties of the commissioner to promote opportunities for organic agriculture by surveying producers to assess research and information needs, demonstrate organic practices, coordinate department organic activities with other state agencies and the University, and report on the status of organic agriculture on a biennial basis.
 - Specifies membership categories for the commissioner's Organic Advisory Task Force and extends the task force expiration date to June 30, 2003.
- 2003 Minnesota Session Laws, chapter 107, sections 15-19
 - Adopts federal organic standards and rules as the organic food production law and rules of Minnesota.
 - Brings state organic statutes into conformity with federal law by repealing any existing state laws that conflict with federal law.
 - Retains current agency duties and strengthens the agency's ability to provide technical, financial, and marketing services to support organic farmers and the organic industry.
 - Requires the agency to report on economic and health aspects of organic farming.
 - Authorizes the agency to register state organic production and handling operations, and certification agents operating in the state.
 - Expands the commissioner's Organic Advisory Task Force to better reflect the organic food industry by adding one more organic food processor representative, one more representative of the organic food wholesaler/retailer/distributor sector, and a representative of the USDA
 - Reauthorizes the Organic Advisory Task Force until June 30, 2005.
- 2005 Minnesota Session Laws 2005, 1st Sp. Sess., chapter 1, section 61
 - Reauthorizes the Organic Advisory Task Force until June 30, 2009.
- 2007 Minnesota Session Laws, chapter 45, section 3
 - Appropriates \$100,000 per year to the Department for annual organic certification cost share payments to farmers and processors with a payment rate of 2/3 of the cost of certification, not to exceed \$350, with any excess appropriation for organic market and program development.
 - Limits eligibility to receive state organic cost share reimbursement to five years.
- 2008 Minnesota Session Laws, chapter 297, section 63

- Appropriates \$100,000 per year to the Department for annual organic certification cost share payments to farmers and processors with a payment rate of 2/3 of the cost of certification, not to exceed \$350, with \$15,000 for organic market and program development.
- Limits eligibility to receive state organic cost share reimbursement to five years.

2009 Minnesota Session Laws, chapter 94, section 3

- Appropriates \$10,000 per year to the Department for annual organic certification cost share payments to farmers and processors who do not receive federal cost share payments. Specifies a payment rate of 2/3 of the cost of certification, not to exceed \$350, with any excess appropriation for organic market and program development.
- Limits eligibility to receive state organic cost share reimbursement to five years.
- Authorizes the use of vouchers for the purchase of cost-neutral organic WIC allowable food.
- Expands the Organic Advisory Task Force's charge to advise the U of M.
- Revises the composition of the Organic Advisory Task Force with a total of 15 members to serve staggered terms.
- Reauthorizes the Organic Advisory Task Force until June 30, 2013.
- 2011 Minnesota Session Laws, chapter 5, subd. 5 (a)(3-4); chapter 14, subd. 3
 - Appropriates funds for the U of M College of Food, Agricultural, and Natural Resource Sciences to establish and lead organic research, education, and outreach in a number of areas and identifies organic crop and livestock research as a priority research area.
 - Appropriates \$10,000 per year to the Department for annual organic certification cost share payments
 to farmers and processors who do not receive federal cost share payments. Specifies a payment rate of
 2/3 of the cost of certification, not to exceed \$350, with a limit of five years. Allows any excess
 appropriation to be spent for organic market and program development, producer education, transition
 support, or sustainable agriculture demonstration grants.
- 2012 Minnesota Session Laws, chapter 187, article 1, section 2; chapter 244, section 33
 - Amends Minn. Stat. 2010, section 12A.04, to specify that state appropriations for disaster assistance to producers may be used for organic certification assistance.
 - Amends the required contents and changes frequency of reporting to the Legislature on the status of organic agriculture in Minnesota.
- 2013 Minnesota Session Laws, chapter 99, section 5, subd. 4 (a)(3) and (a)(4)(xi); chapter 114, section 3, subd. 3; chapter 114, section 43
 - Appropriates funds for the U of M College of Food, Agricultural, and Natural Resource Sciences to establish and lead organic research, education, and outreach in a number of areas and identifies organic crop and livestock research as a priority research area.
 - Authorizes the commissioner to use funds appropriated in this subdivision for annual organic certification cost share payments of 75% of the cost of certification or \$750, whichever is less.
 - Authorizes commissioner to allocate funds appropriated in this subdivision for organic market and program development, including organic producer education efforts, assistance for persons transitioning from conventional to organic agriculture, or sustainable agriculture demonstration grants.

- Establishes three-year terms for Organic Advisory Task Force Members.
- Reauthorizes the Organic Advisory Task Force until June 30, 2016.
- 2015 Minnesota Session Laws, chapter 4, section 2, subd. 3; chapter 4, section 56, subd. 2; chapter 69, section 5, subd. 4 (a)(3) and subd. 4 (a)(4)(xiii)
 - Authorizes the commissioner to use funds appropriated in this subdivision for annual organic certification cost share payments to resident farmers and handlers or to assist people transitioning from conventional to organic agriculture.
 - Requires the commissioner to consult with an advisory panel that includes a person representing organic or sustainable agriculture when awarding grants as part of the Agriculture Research, Education, Extension, and Technology Transfer Program.
 - Appropriates funds for the U of M College of Food, Agricultural, and Natural Resource Sciences to establish and lead organic research, education, and outreach in a number of areas and identifies organic crop and livestock research as a priority research area.
- 2016 Minnesota Session Laws, chapter 184, section 6
 - Authorizes the commissioner to promote organic agriculture in the Minnesota by surveying to
 determine research needs, work with research and education institutions to demonstrate on-farm
 organic practices, share state or federal programs that support organic agriculture, provide report on
 status of organic in years ending in zero or five, may receive state and federal funds to educate and
 support producers, may facilitate registration of exempt organic producers and handling operations.
 - Reauthorizes the Organic Advisory Task Force until June 30, 2019.
- 2017 Minnesota Session Laws, chapter 88, section 2, subd. 3 (d); chapter 89, article 1, section 4, subd. 4 (a)(3)
 - Authorizes the commissioner to use funds to assist producers transitioning from conventional to organic agriculture.
 - Appropriates funds for the U of M College of Food, Agricultural, and Natural Resource Sciences to establish and lead organic research, education, and outreach in a number of areas and identifies organic crop and livestock research as a priority research area.
- 2019 Minnesota Session Laws, 1st Sp. Sess., chapter 1, article 1, section 2, subd. 3 (e); chapter 38, section 16; chapter 64, article 1, section 4, subd. 4 (a)(3) and subd. 4 (a)(4)(xiii)
 - Authorizes the commissioner to use funds to assist producers transitioning from conventional to organic agriculture.
 - Reauthorizes the Organic Advisory Task Force until June 30, 2024.
 - Appropriates funds for the U of M College of Food, Agricultural, and Natural Resource Sciences to
 establish and lead organic research, education, and outreach in a number of areas and identifies organic
 crop and livestock research as a priority research area.
 - Appropriates funding for research based on needs of Minnesota's agricultural community in consultation with Minnesota farm organizations with a focus on organic crop and livestock farmers.