The Status of Organic Agriculture in Minnesota
- July 2003 -

A report to the Minnesota State Legislature

Prepared by the Minnesota Department of Agriculture

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Executive Summary

Purpose of Report
The Minnesota Department of Agriculture, in conjunction with its Organic Advisory Task Force, is directed to report to the Legislature on the status of organic agriculture in Minnesota on a biennial basis.

Organic Industry in Minnesota
Organic acreage shows strong growth in Minnesota and across the nation. Certified organic acreage in Minnesota grew to about 103,000 acres in 2001, up 62 percent compared to 1997. Organic acreage accounted for approximately 0.2 percent of cropland in Minnesota. Growth of U.S. certified organic acres during the same five-year period was 74 percent. In 2001, Minnesota ranked sixth overall in certified organic acreage in the U.S., with 4.4 percent of the total U.S. certified organic acres. Minnesota ranked first in acres of organic corn, soybeans, and rye, second in organic buckwheat, third in organic pasture and hay, fifth in alfalfa hay and miscellaneous forage, and sixth in wheat, barley and millet. In livestock, Minnesota ranked seventh in organic milk cows and organic hogs and pigs, and ninth in organic beef cows.

Retail organic food sales showed strong and consistent growth at more than 20 percent per year during the 1990s, a trend that industry sources predict will continue. Retail organic sales reached $9.5 billion in 2001 and are expected to grow to $20 billion by 2005. An increasing number of farmers and food companies view organic as a value added strategy. The Minnesota Department of Agriculture estimates that 80 to 100 Minnesota companies manufacture certified organic feed and food products, including meat and poultry.

State and Federal Programs Directed Toward Organic Agriculture
Federal organic standards were implemented in October 2002 providing standardization and uniformity throughout the U.S. These standards govern production, labeling, certification, and enforcement of organic farming, handling, and retail sales. Minnesota's organic statutes, extant since 1986, are changing to conform with federal law as the federal government assumes duties such as standard setting, certifier accreditation, and enforcement. Minnesota retains the right and ability to enforce truth in labeling laws in the interest of consumer protection.

Minnesota's Department of Agriculture serves the organic farming sector through its Sustainable Agriculture Program, and serves the non-farming organic business sector through its Agricultural Marketing Services Program. The Commissioner of Agriculture is advised by an appointed Organic Advisory Task Force, which represents multiple sectors including production, processing, research, education, and consumer issues.

A number of entities have roles that support and assist the organic sector:

Minnesota Department of Agriculture (MDA)

- The Sustainable Agriculture Program within the Agricultural Resources Management and Development Division provides production and certification information. It responds to direct producer inquiries, offers information sessions for producers and organic orientation training to agricultural professionals, supports applied, farmer-directed on-farm research, staffs the Organic Advisory Task Force, maintains a comprehensive public-access website on organics, hosts an annual Minnesota Organic and Grazing Conference, and administers an Organic Certification Cost Share Program.
- The Agricultural Marketing Service Division provides promotional and marketing assistance to Minnesota organic companies.
- The Dairy and Food Inspection Division provides consumer protection by enforcing state truth-in-labeling laws.

University of Minnesota

- The Southwest Research and Outreach Center at Lamberton conducts long term agroecological research on organic systems on 120 certified acres, hosts educational events about the organic research the Center conducts, and supports an organic farmer mentor program.
- The University of Minnesota Extension service conducts replicated organic field trials and offers workshops and field days in several counties. Extension educators also offer instruction at organic conferences in Minnesota and neighboring states.
- The Minnesota Institute for Sustainable Agriculture (MISA) operates a web-based information exchange that connects organic and other producers to University faculty.

United States Department of Agriculture

- The Natural Resources Conservation Service (NRCS) in Minnesota underwrites organic conferences and workshops in the region and in 2001 began an organic transition cost share program as part of its larger Environmental Quality Incentives Program (EQIP).
- The Risk Management Agency (RMA) continues to develop, pilot, and offer crop insurance programs for organic producers.
- The National Organic Program (NOP) implements federal organic standards, accredits state and private certification programs, participates in negotiating with foreign governments for trade equivalency of organic products, and oversees enforcement of federal standards.
- The Sustainable Agriculture Research and Education Program (SARE) provides funding for organic research, demonstration, and education through competitive grants programs.

- The USDA-funded Appropriate Technology Transfer for Rural Areas Program (ATTRA) develops informational resources about organic production and marketing issues, and provides these resources free of charge to producers and other agricultural professionals.

Inter-agency Cooperation

To acknowledge the importance of the growing organic agriculture sector and to increase the efficiency of program delivery, five state and federal agencies in Minnesota signed a *Memorandum of Understanding on Organic Agriculture (MOU)* in April 2003. The MOU partners recognize that organics are a farming system choice preferred by a small but growing number of farmers and consumers, and will undertake complementary efforts to help organic growers improve profitability, identify new market opportunities, and conserve natural resources.

The agencies will focus on activities including:

- Developing and implementing conservation farm plans for organic crop production;
- Providing staff support for organic professional development, service delivery, and outreach efforts;
- Sharing information about innovative organic programs taking place in other states or countries; and
- Encouraging the use of demonstrations and field days with organic field operations to showcase conservation and organic production.

Barriers to Growth and Research Needs

Informed by state and national farmer surveys, and by the MDA's Organic Advisory Task Force, the MDA identified barriers to growth and research needs for organics. These include:

- Continuing need for research and education on production issues like weed and pest control, crop rotation, and soil management;
- Vulnerability of organic crops to contamination by genetically modified pollen;
- Lack of agricultural advisors versed in organic principles and methods;
- Disproportional difficulty, compared to conventional farmers, in securing agricultural loans and capital;
- Continuing perception by many decision makers that organics are a high-risk venture appropriate to only small scale production;
- Limited availability and high-cost crop insurance;
- Unstable market premiums; and,
- Disproportionately low spending on organic research and outreach by universities and other public institutions.

Recommendations
With input from stakeholders, peer agencies, and the Organic Advisory Task Force, the MDA recommends the following:

- Provide **education and information** through coordination of programs, promotion of farmer-to-farmer networking, workshops and conferences, and media outreach.
- Pursue further **research** into long-term organic cropping systems on U of M research land, through farmer-directed on-farm research and demonstrations, and on model organic farms.
- Encourage **business development** by assessing and evaluating current Minnesota organic processing capacity, and designing programs to help companies overcome barriers to producing organic product, and by helping farmer groups explore and pursue marketing and value-added business opportunities.
- Provide **policy and regulatory support** through revision of the State Organic Statute, enforcement of state labeling laws, participation in the National Association of State Organic Programs, and assistance to Minnesotans who want to complain to the NOP about violations of the Final Rule.
- Offer **technical and financial assistance** to producers and companies by working with the NOP to secure federal cost-share funds for certified operations and by increasing outreach to and inclusion of organic farmers and companies in existing state and federal farm, conservation, and business development programs.
- Continue Minnesota's **leadership** role in U.S. organic agriculture by implementing and expanding participation in an *MOU on Organic Agriculture*, fostering an atmosphere that encourages collaboration, networking and complementary efforts by state, university, and non-profit stakeholders, and pursuing opportunities identified by the Organic Advisory Task Force.

THE STATUS OF ORGANIC AGRICULTURE IN MINNESOTA 2003

Introduction: What is Organic?

Organic is a guarantee to consumers about how an agricultural food or fiber product was grown and handled before it reached the consumer. It is also a set of guidelines to farmers who grow plants and animals, and to processors and handlers who turn it into food or clothing products.

> *...The primary goal of organic agriculture is to optimize the health and productivity of interdependent communities of soil life, plants, animals and people.*
>
> *--The USDA National Organic Standards Board, 1992*

The first United States federal organic standards became effective on October 21, 2002. They address production, processing and labeling, certification, recordkeeping, and allowed inputs. These standards were developed over ten years in response to the Organic Foods Production Act of 1990. Proposed rules were published for public comment twice. In 1997, USDA received 275,603 comments that shaped revisions of the rule (Federal Register, 2000). In 2000, nearly 41,000 individuals and organizations commented on the second proposed rule (Federal Register, 2000a). The Final Rule was published in the Federal Register on December 21, 2000.

According to the Final Rule, products that make organic claims must be certified by a USDA-approved organization. There is an exemption for farms that earn $5,000/year or less in organic receipts and sell direct to consumers. Third-party certification assures consumers that the product was grown and processed according to a set of *organic standards*, and assures farmers and organic companies that they are operating on an equal footing, under consistent and uniform standards. There are stiff penalties for fraud.

In general, organic crops are grown on land that is managed to reduce erosion and improve soil quality, and are fertilized with non-synthetic nutrients for three years before harvest. A few synthetic nutrients and soil additives appear on a special National List and are allowed. There are strict manure and compost guidelines. Weeds, insects, and other pests are controlled using practices like crop rotation, variety selection, biological control (habitat for natural enemies of the pests), mulching, and tillage. Most synthetic herbicides and pesticides are prohibited in organic production.

Organic livestock must eat feed that is organically grown and handled. If they are grazing animals, the pasture must be organic. Growth hormones and antibiotics are prohibited, as are feeding urea, manure, and animal products. Organic livestock must be raised in conditions that allow access to the outdoors (as appropriate to the species) and appropriate exercise. Ruminants like cows and goats must have access to pasture. Physical alterations such as dehorning, castration, and tail docking must be done for reasons that promote the animal's welfare and must be done in ways that minimize pain and stress. It is forbidden to withhold medical treatment from a sick animal in an effort to "keep it organic". If an animal does require treatment with a prohibited substance, it loses its organic status.

In addition to production issues, the Final Rule contains regulations concerning how crops and animals that are grown organically must be processed and handled in order to preserve their organic status. Ingredients, processing aids, pest management in the processing facility, and labeling must all follow the organic rule. There must be no opportunity for organic products to mix (or "commingle") with similar non-organic products.

Under the Final Rule, unless they appear on the National List of Allowed and Prohibited Substances (Subpart G of the Final Rule), "natural" substances are permitted, while "synthetics" (including fertilizers derived from petrochemicals, antibiotics, and hormones) are prohibited.

Final Rule: Implications for Minnesota

Even as it is implemented, the Final Rule is controversial. Some groups and individuals hail it as a measure that will promote consistency, supply accurate information to consumers, and reduce fraud within the organic industry. Some complain the Rule is overly exacting, that the recordkeeping required will be onerous for growers, and that the third party certification requirement will be too expensive and discourage small and medium-sized farmers and organic companies from certifying (and therefore, from selling their products as "organic"). Still others groups maintain the rule is not stringent enough in its requirements.

The Minnesota Department of Agriculture expects implications of the new federal rule for organic farms, processors, and buyers to be multifold. For the first time, the Rule will provide a consistent state-to-state standard, so that a product grown "organically" in Vermont or Wyoming will have been grown under the same guidelines and requirements as a product grown organically in Minnesota. No farmer or handler will have an unfair advantage of working with a lax certifier, or representing non-organic products as "organic." Nor will farmers face discrimination in the domestic marketplace because they were certified by an agency unacceptable to the buyer.

Organic Farmers' Toolbox

Organic production systems emphasize ecological and biological principles. Organic is not "farming by recipe" or "farming by the calendar", and the Final Rule is not prescriptive. There are common management tools used by organic farmers, including many of the following:

Tool: Expanded crop rotations (3-5 years or longer)
Benefits: Enhance fertility; break weed, disease and insect pest cycles; promote increased soil biological activity and nutrient cycling.

Tool: Composting
Benefits: Incorporate animal manure and crop residues; stabilize nutrients; kill pathogens.

Tool: Green manures
Benefits: Contribute plant nutrients (e.g., biologically-fixed nitrogen from legume crops); add soil organic matter; enhance soil structure and water holding capacity.

Tool: Cover crops
Benefits: Suppress weeds by smothering or allelopathy (particularly rye, *Secale cereale* L.); reduce soil erosion from water and wind; provide habitat for beneficial insects; contribute soil organic matter and nutrients (plowdown); increase soil biological activity .

Livestock health tools: Proactively manage to reduce stress and prevent disease, including: selecting species for adaptability and resistance; using handling systems that take advantage of natural behavior; balancing nutrition and high-quality organic feed; providing adequate space for behavior that is normal to the species; maintaining rigorous housing sanitation; allowing access to outdoors (appropriate to species); and, performing no physical alterations unless for reasons of health or welfare.

Growth and Development of Organic Agriculture in the U.S.

In Fall 2002, the USDA Economic Research Service (USDA/ERS) released comprehensive 2000 and 2001 data detailing organic production in all 50 states and in the nation as a whole (Greene and Kremen, 2003), updating 1997 acreage information (Greene, 2001).

Between 1997 and 2001, U.S. certified acreage grew by 74.1 percent, from 1,346,558 acres to 2,344,857 acres. The largest cropland gains were seen for corn, soybeans, dry beans, corn, flax, spelt, and rice, which each grew by more than 100 percent. The largest livestock gains were seen in dairy and in broiler and layer hen production, which each added more than a million animals (Greene and Kremen, 2003, USDA/ERS, 2002). Farmer motivation for growing organically varies with the individual operator, and can include lowering input costs, decreasing reliance upon non-renewable resources, premium prices, access to high value markets, life philosophy or stewardship ethic, and operator and farm family health concerns.

In addition to tracking production patterns, the ERS and others have also been monitoring market and consumer trends in the organic industry. They report that sales have grown by 20 percent or more each year since 1990 (Dimitri and Greene, 2002). Nutrition Business Journal estimated organic sales of $4.86 billion in 1999 (Thwaites, 2001). According to the market research firm Packaged Facts, estimated total retail sales through all organic outlets were $6.5 billion in 1999, $7.8 billion in 2000 (Myers and Rorie, 2000). The International Trade Centre estimated 2001 sales at $9.5 billion (Kortbech-Olesen, 2003). Industry watchers predict continuing growth of 15 to 25 percent per year in the U.S. with domestic sales reaching $11 to $13 billion in 2003 and $20 billion by 2005 (Kortbech-Olesen, 2003; Myers and Rorie, 2000; NPICenter, 2002).

Who buys organic?
Analyzing data from a number of consumer surveys, agricultural economist Luanne Lohr has identified some general characteristics of organic food buyers.

62% are over 41 years old
71% have college educations
60% are married
49% live in small towns or rural areas

2 out of 3 earn less than $50,000/year

1 out of 3 consumers in all income classes buys organic produce.

(Lohr, 2002)

Sales growth rates differed according to food category. Organic dairy was the fastest growing segment of the market in the 1990s, growing by more than 500 percent between 1994 and 1999. Sales of organic fresh produce grew by more than 50 percent between 1999 and 2000 (Dimitri and Greene, 2002). Packaged foods grew 22 percent in 2000, with sales of $710 million, according to Nutrition Business Journal (Thwaites, 2001). In 2000, the ERS observed that organic meat and dairy markets were beginning to grow in response to USDA's lifting of the ban on organic labeling in 1999 (Greene, 2000).

Results of industry surveys conducted within the past three years indicate that between 11 and 66 percent of American shoppers buy organic foods at least occasionally. Major and minor reasons shoppers cite for purchasing organic foods include health and nutrition concerns, taste, environmental concerns, and food safety issues. Barriers to purchasing organics cited most often include cost, variety and availability of products, and skepticism about organic benefits and claims (Demeritt, 2002; Roper, 2002).

In addition to traditional purchase points such as natural and health food stores, market channels for organic foods include conventional grocery stores, natural supermarket chains like Whole Foods and Wild Oats (which do some corporate branding of organic product), and direct-to-consumer markets, including farmers markets and internet sales. In 1999, conventional food stores began outselling natural product supermarkets in a number of organic foods categories, and now nearly three out of four conventional supermarkets sell organic products, indicating growing mass market appeal of organic foods. In addition, the market share of organic products sold directly to consumers is substantially higher than that of conventional products (Dimitri and Greene, 2002a). When they sell directly to consumers at farmers markets or through Internet sales, for example, farmers capture retail prices for themselves.

As with other types of agriculture, organic is an area in which U.S. farmers and businesses compete with international peers. Most governments in the European Union promote organic farming through various means including direct agriculture-environment payments that reward farmers for the environmental benefits of organic practices. Agricultural economist Luanne Lohr points out that active support for organics by many European governments was linked to gains of 5.4 million organic acres and 68,000 organic farmers between 1996 and 2000. During the same period, the U.S. gained only 1.16 million acres and 2,700 organic farmers. While U.S. farmers do not currently enjoy similar policy or payment benefits, Lohr says the Conservation Security Program, a 2002 Farm Bill program detailed elsewhere in this report, "may enable U.S. organic farmers to be more aggressive in production expansion and marketing activities, making them competitive in the global organic market" (Lohr, 2002).

Organic products typically command higher prices both at the farmgate and at retail points of sale. While the prices earned by Minnesota milk producers in 2002 was $12.20 (Weinand, 2003), for example, organic dairy farmers in Minnesota reported earning $18 to $20 per hundredweight during the same year. Early November 2002 price reports from the weekly *Organic Business News Fax Bulletin* estimate farmgate prices for organic yellow corn at $4.35 to $5.50/bu, organic clear hilum soybeans at $11.00 to $12.00/bu, organic Vinton soybeans at $15.00 to $16.00/bu, and organic hard red spring wheat at $5.00 to $6.00/bushel (Organic Business News Fax Bulletin, 2002). The ERS has concluded that in the 1990s, farmgate prices for some organic fruits and vegetables reportedly exceeded conventional farmgate prices by 100 percent, and that premiums for organic corn, soybeans, wheat, and oats regularly exceeded 60 percent. Farmers report prices for organic commodities have declined in some areas. As the ERS and others have noted, price patterns are difficult to track because there is no public program for organic price data collection.

Organic production is assumed by many to have lower agronomic yields than higher-input conventional production. While producers and researchers do generally report lower yields than with conventional practices, they also report lower input costs and price premiums for their crops and livestock that lead to higher net farm income. Using ten years of data from cropping systems research at the University of Minnesota's Southwest Research and Outreach Center, agricultural economist Kent Olson reported that, in a four-year rotation with full or half organic premium (based on historical premium average), organic production was more profitable than conventional production using a four-year rotation. When the organic premium was ignored, the organic and conventional four-year rotations were statistically even in terms of profitability (Olson, 2002). Still, declining price premiums are an area of concern for many organic farmers. At conferences and gatherings, there are frequent discussions of alternative marketing strategies, including on-farm processing, restaurant sales, community supported agriculture, and the formation of marketing pools that use the rights of price discovery and collective bargaining opportunities uniquely conferred on farmers by the Capper-Volstead Act (Brussell, 2002).

Organic Agriculture in Minnesota

According to the USDA/ERS, in 2001, Minnesota had 421 certified farms and ranked 6th overall in certified organic acreage, with 103,297 acres, or 4.40 percent of the U.S. total. In comparison, Minnesota ranked 7th in the nation in 1997, with 63,685 certified organic acres, or 4.73 percent of the national total. Minnesota's 62 percent increase in certified organic acreage is slightly lower than the 74.1 percent national rate of increase, much of which can be attributed to the fact that a few states had little to no organic acreage in 1997, so their increase reflected in these data is disproportionally large (Table 1).

Table 1. Changes in Certified Acreage 1997 - 2001 (USDA/ERS, 2002)

	1997	2001	Change
Certified organic acres (MN)	63,685	103,297	+62.2%
Certified organic acres (U.S.)	1,346,558	2,344,857	+74.1%
MN % of total U.S. organic acres	4.73%	4.40%	-0.33%
MN rank	7	6	+1

Figure 1. U.S. Organic Acreage

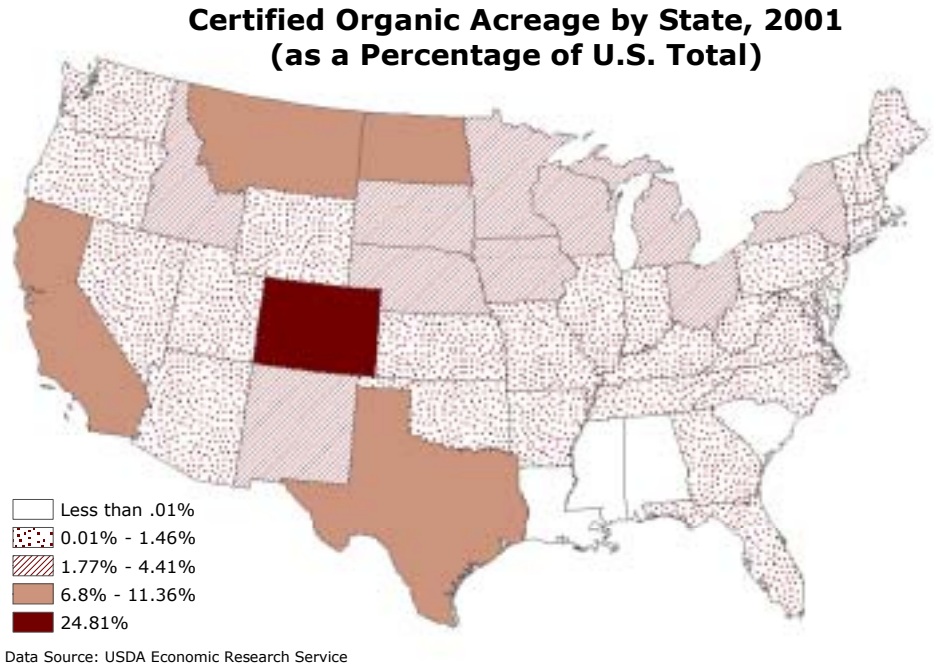
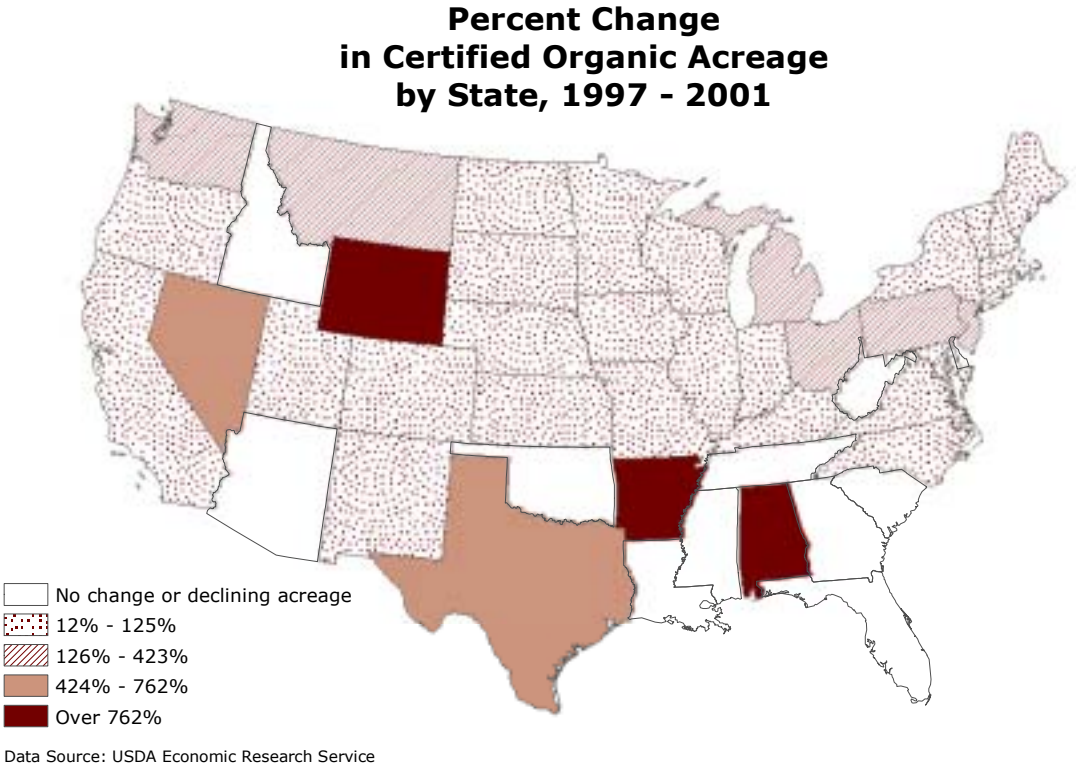


Figure 2. Changes in U.S. Organic Acreage



Minnesota was a top-10 producer of 31 agricultural products and commodity categories in 2001, compared to 34 categories in 1997 (Table 2). A reason for this decrease may be the fact that more states are reporting acreage in nearly every category.

Table 2. Minnesota Organic Acreage Rank

Agricultural Product	Minnesota Rank (States Reporting)
Corn	1 (34)
Rye	1 (20)
Soybeans	1 (33)
Total Beans[a]	**1 (38)**
Buckwheat	2 (17)
Total Grain	**3 (41)**
Pasture & Hay	3 (17)
Fallow	3 (31)
Oats	4 (28)
Other/miscellaneous	4 (8)
Flax	5 (11)
Alfalfa hay	5 (29)
Miscellaneous forage	5 (38)
Miscellaneous crops, other land	5 (40)
Miscellaneous livestock	5 (13)
Wheat	6 (36)
Barley	6 (22)
Millet	7 (9)
Total Forages	**7 (41)**
Green manure/cover crops	7 (25)
Total "Other Crops"	**7 (46)**
Milk cows	7 (21)
Hogs & Pigs	7 (16)
Total Livestock	**7 (28)**
Dry peas/lentils	8 (14)
Sunflowers	8 (17)
Sheep & Lambs	8 (18)
Total Oilseeds	**9 (21)**
Beef cows	9 (27)
Dry beans	10 (24)
Other beans	10 (13)

[a] Includes soybeans, dry beans, dry peas, lentils, etc.

In 2001, Minnesota was the top state in acreage for organic corn (also #1 in 1997), total beans[a] (also #1 in 1997), soybeans (up from #2 in 1997), total acreage in organic grains (steady at #3), and rye (up from #5 in 1997). Other gains include a jump from #5 to #4 in organic oat acreage, from #10 to #6 in organic wheat acreage, from #7 to #6 in organic barley acreage and from #11 to #10 in dry bean acreage. Minnesota jumped from #12 to #9 in number of organic beef cows, even as the number of states reporting for this category doubled.

During the five-year period between 1997 and 2001, Minnesota declined in organic rankings for some crops and livestock species. For example, Minnesota lost its #1 spot for organic buckwheat acreage to North Dakota. It also dropped from #2 to #5 in organic flax acreage, at the same time that the number of states reporting organic flax acreage increased by about twofold. Minnesota's rank for organic forage acreage dropped, although the number of acres in organic forages nearly doubled to 13,117 acres.

In organic dairy, one of the areas of highest retail growth throughout the 1990s (500 percent according to USDA/ERS), survey data estimates that Minnesota lost about 200 dairy cows and rank, falling from #3 (2,425 animals) to #7 (2,238) behind Wisconsin, California, New York, Pennsylvania, Vermont, and Oregon. The reported decrease in Minnesota is puzzling, as it comes during the same period that organic dairy activity in the state appears to be increasing, including the 1997 opening of a new Sauk Centre creamery that buys organic milk, and increased purchasing of

[a] Includes soybeans, dry beans, dry peas, lentils, etc.

Minnesota organic milk by Organic Valley Family of Farms. One USDA/ERS researcher speculated that the discrepancy may be due to the fact that one major certifier of organic livestock in Minnesota went out of business in 2001. Although this certifier reported 2001 crop acreage to USDA/ERS, it did not report livestock numbers, possibly causing the ERS report to underestimate Minnesota dairy cows by as many as 2,000 animals.

Minnesota was listed as a top 10 producer of organic hogs/pigs (83 head) and organic sheep/lambs (240 head) in 2002. No animals in either of these categories were reported for Minnesota in 1997.

State and Federal Programs Directed Toward Organic Agriculture

Since the Department's last report to the Legislature on the status of organic agriculture in the state, the level of interest and activity in organics has increased. Progress has occurred in all of the areas recommended by the Organic Advisory Task Force and the Commissioner in the prior report (2001): education and information, marketing and promotion, regulatory support, and technical and financial assistance (MDA, 2001). In addition, at the invitation of MDA, the USDA Natural Resources Conservation Service (Minnesota), USDA Farm Service Agency (Minnesota), University of Minnesota College of Agricultural, Food, and Environmental Sciences, and University of Minnesota Extension Service agencies finalized a *Memorandum of Understanding on Organic Agriculture* with a signing ceremony held on April 21, 2003.

Minnesota Department of Agriculture

Education and Information

During 2002, the MDA's Agricultural Resources Management and Development Division (ARMD) hired an agricultural diversification specialist, whose responsibilities include providing information and technical assistance, promoting multi-partner collaboration for diversification opportunities including organics, and administering organic program activities that promote opportunities for organic agriculture in Minnesota. Time spent on organic activities by program, clerical, and supervisory staff totaled approximately 1.50 FTE.

In 2001 and 2002, the MDA's ARMD supported and attended state and regional conferences dedicated to organic agriculture. In 2002, partner groups asked MDA to take over organization of a yearly, two-day Minnesota Organic and Grazing Conference. The January 2003 event was self-supporting and doubled attendance from previous years. Since the last legislative report, this division has also provided organic information materials to all county offices of the Natural Resources Conservation Service in Minnesota and to University of Minnesota Extension educators, farm business management instructors, county soil and water conservation offices, and others upon request. Leadership by MDA staff secured a two-year, $60,000 grant from the USDA Sustainable Agriculture Research and Education Program (SARE) to provide organic training to agricultural educators and resource people statewide. In an effort to promote complementary efforts, a staff member from this MDA division co-leads the Minnesota Organic Network, a growing group of about 45 individuals representing farmers, federal

and state agencies, non-government organizations, and University extension and research that convenes monthly by conference call to exchange information and plan together for needed activities.

As part of its outreach efforts, the MDA also provided information via multiple media about organic production practices, consumer issues, educational opportunities, and the new Federal organic law. A website provides the public with 24-hour a day access to information about national standards, contact information for 19 certifying agencies that accept Minnesota clients, sample recordkeeping forms for organic operations, Task Force meeting minutes, data about certified organic production, and consumer issues, as well as links to marketing and other resources. Web activity more than doubled between January 2002 and December 2002, from 470 to 1,093 hits per month.

Marketing and Promotion

Agriculture Marketing Services (AMS) at Minnesota Department of Agriculture can assist in marketing strategies to help organic producers understand consumer needs and create marketing strategies to satisfy those needs. Fair market price is easier to obtain if product is in demand or needed. The AMS assists by helping individual producers and companies interact and exchange problems, solutions, ideas, concerns and techniques that will help them better serve their customers. AMS has experience with trade shows, package design, and product development. In FY 2002/03, the AMS division allocated .23 FTE to organic market development and promotion primarily by recruiting Minnesota companies to participate in organic food and trade shows. This allocation is not expected to change in 2004/05.

Technical and Financial Assistance

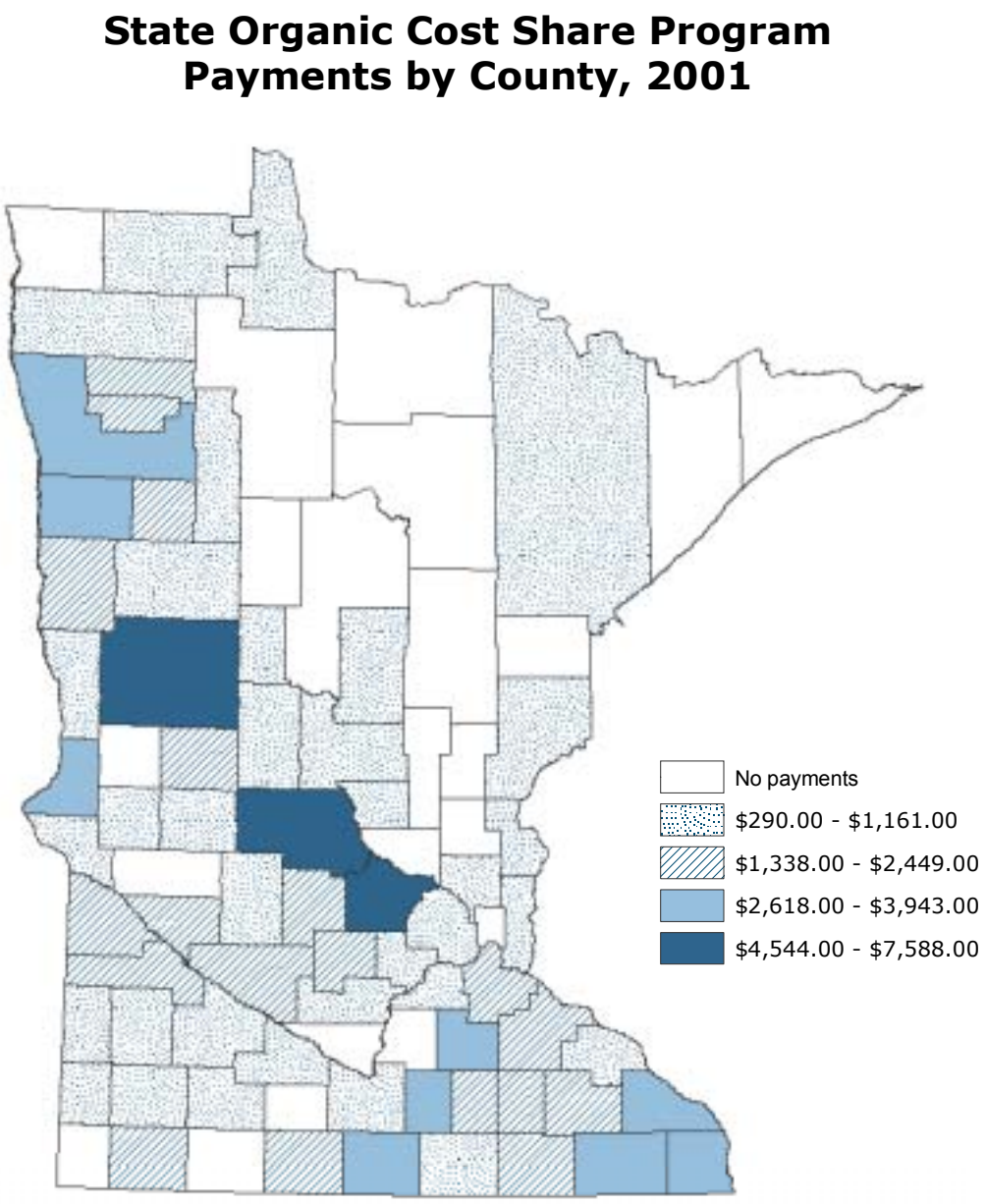
MDA ARMD Division staff and a growing number of extension educators, researchers, and NRCS staff are providing direct technical and financial assistance to organic farmers in several ways. Participation in Minnesota's Organic Certification Cost Share Program increased each year since its debut in 2000. The program was funded by a legislative appropriation in 1999 to reduce the financial burden that certification and inspection fees place on organic growers. In the Minnesota program, organic growers are eligible to recover two-thirds of their certification and inspection costs, up to a maximum of $200 per farm. Applicants are required to provide proof of certification and proof of payment. Eligibility lasts for five years. Program participation grew each year to 193 participants in 2002 (Table 3 and Figure 3).

Table 3. Minnesota Organic Cost Share Program Payment History

Crop Year	Payment Year	# Recipients	Average Payment
1999	2000	177	$174
2000	2001	183	$186
2001	2002	193	$193

Minnesota pioneered the concept of organic certification cost share. The State's program was the model for the nationwide organic cost share program provision in the 2002 Federal Farm Bill (Hoefner, 2002).

Figure 3. Cost Share Distribution



Data Source: MDA, Sustainable Agriculture Program

MDA Energy and Sustainable Agriculture Program Demonstration Grants supported farmer-initiated organic research, as well as research focused on broader issues of economic, environmental, and social sustainability. In 2001, 12 organic farms (20 percent of total active projects) participated in the program. In addition, the former MDA Value-added Co-op Development Program supported organic enterprises. In 2002, six of

the 37 MDA Value-added Co-op Development Program projects (16 percent) were organic endeavors, including, Earthwise Processors, Buckwheat Growers Association of Minnesota, Organic Herb Cooperative, Pasture-Raised Poultry Co-op, Stearns Family Farms (organic dairy), and Whole Farm Co-op. The MDA program provided direct assistance for market research, business planning, and technical assistance with product development, advertising, and developing business practices like sound accounting systems.

Regulatory Support

Although primary compliance and enforcement responsibility now belongs to the federal government, MDA's Dairy and Food Division will continue to enforce Minnesota's truth-in-labeling laws with regard to organic claims. The MDA will also investigate consumer complaints or refer them to USDA, as appropriate.

Policy and Program Support

Since the National Organic Program Final Rule establishing nationwide organic food production and processing standards became effective on October 21, 2002, changes to Minnesota's organic statute became necessary. Minnesota's Organic Food and Organic Certification statutes (MS 31.92, 31.93, 31.94, and 31.95) and rules (1555.0005-1555.0012, 1556.0200-1556.0227, and 1556.0140) were enacted between 1985 and 1999. These statutes and rules established state organic production, labeling, and processing standards, authorized agency promotional activities and an agency advisory task force, and created the process for organic certification in the state.

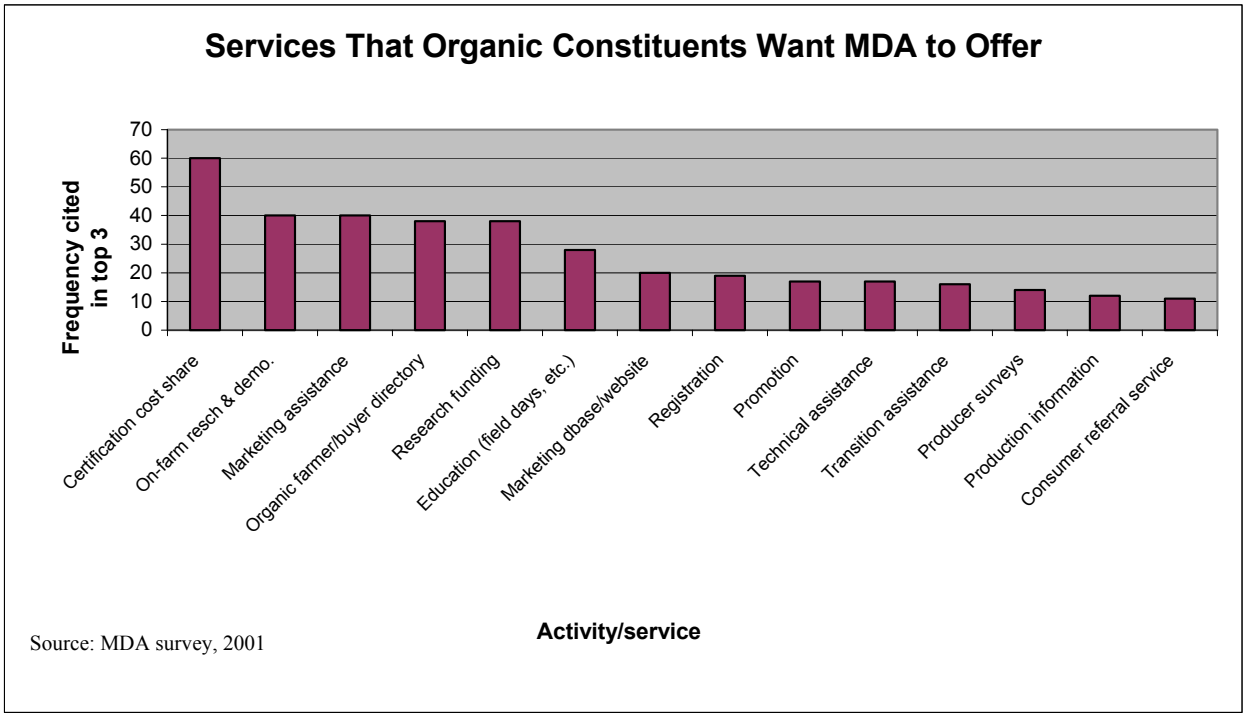
The federal rule preempts the state's authority to set standards for the production or processing of organic food, approve certification organizations or processes, or enforce state laws related to organic production or labeling. However, under federal rule, states may engage in organic promotion and research projects, marketing, transition assistance or cost share programs, registration of state organic production and handling operations, registration of certifying agents operating with the state, or consumer referral programs.

The MDA worked with members of the Minnesota House and Senate to introduce legislation that would adopt the federal law as the organic food production law and rules of the State, and bring state law into conformity with federal law. The MDA also sought to strengthen its current authority to provide services and support the industry within the activities allowed the State under the federal rules including authority to register state organic production and handling operations, and certification agents operating in the state.

Organic programming at MDA has been guided by stakeholder feedback. The 2001 *Status of Organic Agriculture in Minnesota* report to the Legislature recommended surveying farmers to determine organic research needs. With MDA facing program changes in view of changes at the Federal level, the Department elected to survey farmers, processors, and retailers about how MDA should use its resources in ways that would assist them. The MDA mailed almost 400 surveys to farmers and businesses known to be involved in organic agriculture. A total of 149 people, mostly farmers,

returned the survey. When asked what three services they most wanted the MDA to provide for the organic industry, respondents cited the following issues most frequently: organic certification cost share; on-farm research and demonstration; marketing assistance (including farmer/buyer directory or network); and research funding (Figure 4).

Figure 4. MDA Constituent Priorities



The MDA intends to help growers, processors, and consumers understand the portions of the rule that pertain to them, stay current on developments at the National Organic Program, and comprehend and navigate the certification process. More than half of respondents to a 2001 constituent survey said they believed Minnesota should become a "State Organic Program" with authority to enforce federal organic standards and rules. Although the MDA weighed this feedback, on the advice of the MDA's Organic Advisory Task Force (Appendix A) and Department counsel, the Commissioner elected not to apply to USDA for status as an accredited State Organic Program. Such status would have required the State of Minnesota to enforce the Federal law [7 CFR 205 §205.620(d)], which could be extremely costly in staff time and legal fees. The Department will instead focus on promotion and education about organics, and on ensuring the integrity of organic identity in Minnesota through enforcement of existing state labeling laws, as described above.

University of Minnesota Research and Education

The Elwell Agroecology Farm at the University of Minnesota Southwest Research and Outreach Center (SWROC) near Lamberton, MN has been the focus of the University of Minnesota's research and education program on agroecology and has provided primary

support for organic producers in the State and the Upper Midwest region. The farm consists of 120 certified organic acres and is the largest certified organic research site in the United States. In 2001, only five states in the nation had research land that was certified organic, and four had 20 acres or less (Sooby, 2001). While the SWROC is the only University of Minnesota center that currently has organic acreage, researchers at the Southern Research and Outreach Center (SROC) at Waseca expect to certify 13 acres in 2003.

The Elwell site includes long term rotation studies that were initiated in 1989 and are some of the only organic rotation experiments in the United States. In addition, an "Organic Conversion Project" (OCP), initiated in 1998 to develop and provide reliable information on organic farming to transitioning and established growers, has formed a farmer network of 50 farmers from southern and central MN that links transitioning farmers with experienced organic growers. The OCP has also organized a series of annual field days (120 to-170 attendees), winter workshops (25 to 70 attendees), and field courses that focus on critical issues in organic production and marketing, and has developed collaborative research on organic cropping systems with transitioning and certified organic producers. The OCP mailing list includes 625 people who have attended functions at SWROC or have requested mailings.

In addition, in 2002, researchers based at the St. Paul Campus received a four-year, $424,000 grant from USDA's Cooperative State Research, Education, and Extension Service (CSREES) for a study entitled, *Integrated Weed and Soil Management Options for Organic Cropping Systems in Minnesota*. This study will be conducted at Elwell and on nearby farms, and includes several St. Paul Campus-based faculty members.

A number of University and Extension-sponsored outreach activities connect interested growers with new ideas or research results, including:

- *Field Course in Organic Management*. This course was held July 24 and 25, 2002. Attendance was capped at 85; most attendees were NRCS employees wanting information about organics to help farmers planning to enroll acres for organic conversion through the EQIP program. Evaluations were excellent.
- *Northwest Workshops.* In the Northwest area of the state, extension educators Hans Kandel and Jim Stordahl hold two workshops per year for producers of organic foods (attendance 70-100). They share progress on several research trials funded by USDA's Sustainable Agriculture Research and Education Program ($50,000), the Minnesota Regional Sustainable Development Partnership, county governments, and crop commodity groups. Projects include: phosphorus mobilization by buckwheat and other cover crops; organic wheat, oat, and soybean variety trials; flame weeding; compost teas, and interseeding clover in cereal grains.

USDA Natural Resources Conservation Service

At the national level, in September 2001, the Organic Trade Association and the United States Department of Agriculture's Natural Resources Conservation Service (NRCS) signed a Memorandum of Understanding (MOU) on Organic Agriculture. In the MOU,

NRCS agreed to provide technical assistance to organic producers, in particular, to help them implement soil and water conservation practices. In addition, the OTA and NRCS agreed to share information and cooperate fully to advance conservation and organic production (Riddle, 2002). This national agreement became the model for a Minnesota MOU described below.

In Minnesota, NRCS State Conservationist William Hunt directed his staff to design and implement an organic transition incentive payment program using Environmental Quality Incentives Program (EQIP) funds to assist farmers who choose to convert new acreage to organic production. In his announcement of the new program, Hunt stated that his agency recognizes "…that organic production methods can provide important resource conservation benefits, and (we) want to ensure that organic producers are provided the opportunity to participate in USDA cost share programs" (USDA/NRCS, 2002).

Under the 2002 program, eligible farmers could receive $50/acre for crop land and/or $25/acre for pasture land, up to 250 acres/year for three years, to convert land from conventional to organic agriculture. To qualify, farmers had to apply at their local NRCS offices, file organic system plans, and be inspected by a USDA-accredited certifying agent for verification of organic transition practices.

The program was announced on March 14, 2002, with applications due April 26, 2002. A second round of applications was announced June 1, 2002 and closed on July 26, 2002. In response to customer demand, 18.4 percent of Minnesota's $9 million in EQIP funds for FY 2002 were apportioned to organic transition contracts. According to NRCS records, the agency received 176 applications for cropland enrollment of 52,527 acres and approved 32,819 acres in contracts with potential payments of $1.6 million. Livestock producers submitted 29 applications for enrollment of 5,740 acres. NRCS approved 2,212 acres with potential payments of $52,488 (Flynn, 2002; Martinek, 2002). The program generated wide interest. At least ten other states have contacted NRCS and MDA for more information about the program (Flynn, 2002).

As a result of the national MOU and EQIP organic transition cost share program, the task of providing NRCS and Resource Conservation and Development District (RC&D) staff with technical training and education on organics emerged as a priority in 2001 and 2002. The Minnesota Department of Agriculture distributed organic information packets to district NRCS offices in all 87 Minnesota counties in summer 2001. MDA Sustainable Agriculture program staff spoke at three NRCS district officeds and RC&D council annual meetings. In addition, program supervisor Mary Hanks, Organic Advisory Task Force chair Jim Riddle (who also serves on the National Organic Standards Board that advises the USDA National Organic Program), and Madison, MN organic farmer Carmen Fernholz provided organic production, certification, and marketing at the annual NRCS all-employee meeting in March 2002. The NRCS State Agronomist has provided education about organics to new NRCS employees during orientation training. Minnesota's state NRCS office expects to review and revise its technical guides with respect to organic agriculture practices early in 2003 (Martinek, 2002). Other USDA agencies that have a role in organic agriculture include Risk Management Agency, which

continues to develop, pilot, and offer organic crop insurance to growers. The Sustainable Agriculture Research and Education Program offers a competitive grants program that funds organic research, demonstration, and education. The Appropriate Technology Transfer for Rural Areas Program at the National Center for Appropriate Technology receives USDA funding to develop general information resources about organic production and marketing issues and to make these available to growers and other agricultural professionals.

Inter-agency Memorandum of Understanding (MOU)

Galvanized by the Memorandum of Understanding between NRCS and the OTA at the Federal level, NRCS State Conservationist William Hunt approached Commissioner of Agriculture Gene Hugoson to propose a similar partnership in Minnesota. Hunt, Hugoson, Charles Muscoplat, Dean of the College of Food, Agricultural and Environmental Sciences, Charles Casey, Director of Minnesota Extension Service, and John Monson, Executive Director of the Minnesota Farm Services Agency, met to discuss the idea. The MDA wrote the draft MOU, which participants signed at a joint press conference in April 2003 (Appendix B). By signing the MOU, partner organizations agree to undertake complementary efforts to help organic producers improve profitability, identify new market opportunities, and conserve natural resources. With execution of this document, Minnesota is the first state to implement such a state-level multi-partner agreement on organics.

2002 Farm Bill

At the federal level, the Farm Security and Rural Investment Act of 2002 (Farm Bill) contains provisions that, if funded, could provide increased funding and support to address several needs identified by organic farmers and others (Fruit Growers News, 2002; Tencer, 2002). These include:

Research

a) An Organic Research Initiative with $15 million of mandatory funding to be spent at $3 million a year for five years. This initiative will expand the current organic agriculture research and extension initiative to include on-farm research and development for working organic farms, determination of desirable traits for organic commodities, and identification of marketing and policy constraints on the expansion of organic agriculture. Policy groups have noted that the authorization language emphasizes that Congress intended that this initiative not be the exclusive funding vehicle for organic research. For example, a funding increase of $1.3 billion (over the lifetime of the Farm Bill) was authorized for the Initiative for Future Agricultural and Food Systems (IFAFS). IFAFS has funded some organic projects and programs in the past, and is expected to continue to do so. Other language in the Farm Bill expressed Congress's intent that organic be considered a legitimate priority of all USDA research, extension, and education efforts.

b) Direction that USDA must facilitate access to international organic research efforts.

Cost Share and Incentive Payments

a) A new Organic Certification Cost Share program that establishes and provides $5 million in funding, starting in 2002 and available until expended, to assist producers and handlers of agricultural products in obtaining certification under the National Organic Program established under the Organic Foods Production Act of 1990. The bill language allows a maximum federal cost share of 75 percent of certification costs up to a maximum of $500. Program funds are provided to states, through a cooperative agreement, for distribution to producers and handlers.

b) A new Conservation Security Program (CSP), which will provide financial incentives for conservation and increased environmental stewardship on working lands. As the program is currently envisioned, three increasing levels of payments will reward farmers for increasing amounts of conservation activity. It is expected that many organic farmers could readily qualify for the higher payment levels.

Marketing

a) $3.75 million for value-added organic product marketing.

b) Exemption from federal marketing orders for farmers who produce 100 percent organic products.

c) Requirement that USDA undertake ongoing collection of production and marketing data about organic agricultural products.

d) Direction that USDA examine burdens that federal marketing orders place on organic agricultural products.

e) Requirement that USDA report to Congress on the impact of the national organic program on small farms.

f) Requirement that USDA report to Congress on how organic producers and handlers contribute to/benefit from USDA programs.

Barriers to Growth and Research Needs in Minnesota

The MDA surveyed members of the Organic Advisory Task Force and the Minnesota Organic Network to determine current perspectives on growth and research needs, many of which are ongoing. When considered in the context of needs identified by the Organic Advisory Task Force in 2000, and a nationwide organic farmer survey conducted in 1997 (Walz, 1999), it is clear that organic farmers, researchers, educators, and business people agree that important research, education, and support needs persist in a number of areas, including: production systems (e.g., weed and pest control, crop rotation, soil management), vulnerability to contamination by genetically modified pollen, conversion strategies, access to capital, and marketing issues (Table 4).

Anecdotally, farmers, researchers, and economists report numerous additional barriers to growth, including:

- Minimal availability of information about and agricultural advisors who are versed in organic principles and methods;
- Organic farmers have more difficulty than conventional farmers in securing agricultural loans;
- Continuing perception by many decision makers that organics are a high-risk venture appropriate to only small scale production;
- While crop insurance is now available for transitional and organic crops, administered by the Federal Crop Insurance Corporation, premiums are higher than those for conventional crops. Insured yields are based on prior production data, putting organic farmers who use extended crop rotations at a disadvantage and assume reduced yields and conventional prices[b]
- Unstable market premiums; and,
- Disproportionately low spending on organic research and outreach by universities and other public institutions.[c]

In order to address these needs in a comprehensive way, the MDA is leading efforts to generate collaborative, multi-partner efforts throughout the state, through agreements like the *Memorandum of Understanding on Organic Agriculture*, and other programs and activities described previously in this report. Responses from the stakeholder survey conducted in October 2002 suggested that organic certification cost share, on-farm research and demonstration, and marketing assistance should be priorities. In addition, through a planning process within the MDA, an internal working group defined and described roles and responsibilities of the two main divisions whose purview includes organics: Agricultural Resources Management and Development Division and Agricultural Marketing Services Division (Appendix C).

[b] USDA's Risk Management Agency first made crop insurance available to organic and transitional farmers in 2001 (Lohr, 2002).

[c] For example, according to University of Georgia Agricultural Economist Luanne Lohr, in 1995, USDA dedicated 0.11 percent of its research and education budget to organic research and education programs. In 2000, the USDA Market Access Program spent approximately 0.05 percent of its $90 million budget on organic export promotion (Lohr, 2002).

Table 4. Organic Research Needs

	Research Need	OATF/MON 2002*	Status of Organic Ag. in MN, 2001**	Organic Farming Research Foundation, 1999***
Crop production	Weed management (general, annual, perennial)	*	*	*
	Cover-cropping and interseeding strategies	*		*
	Seed treatment options to improve germination and seedling survival	*		
	Pest and disease management		*	*
	Crop variety development for organic systems	*		
	Soil fertility management	*		*
	Soil biological health	*		*
	Alternative crop options to fit profitable rotations/markets	*		
	Crop rotations - fertility, pest management implications	*		*
	Soil erosion, comparing systems, providing scientific data	*		
	Effective reduced tillage systems	*		
	Pollen flow and genetic drift	*	*	
Livestock production	Alternative grains for livestock feed	*		
	Economics of organic dairy	*		
	Organic livestock management	*		*
	Organic parasite control for livestock systems	*		*
	Livestock breeding for organic systems	*		
	Alternatives to methionine in poultry production	*		
Marketing	Effective strategies for marketing organics to consumers	*	*	
	Farmer marketing needs and effective marketing strategies farmers can use	*	*	
	Scientifically valid information on attributes like nutrition, health, environment	*		*
	Distribution and marketing infrastructure		*	
	Improving cosmetics of fruits and vegetables to increase marketability	*		
	Farmer behavior and cooperative marketing endeavors	*		
Other	Energy use, comparisons with conventional	*		
	Conversion issues (transitioning from conventional to organic, including agronomics and economics)	*	*	
	Reducing cost of production to increase profit margin	*		
	Whole farm systems design			*
	Long-term sustainability of organic agriculture	*		

*2002 Priorities identified by the Organic Advisory Task Force and Minnesota Organic Network

**2001 Priorities identified by Organic Advisory Task Force (MDA, 2001)

***Priorities identified by Organic Farming Research Fdtn.'s 3rd Biennial National Organic Farmers' Survey (OFRF, 1999)

Recommendations

In the context of national and state-level organic growth and interest, new federal regulations, and stakeholder input, the Minnesota Department of Agriculture recommends that the Minnesota Legislature, the MDA, the University of Minnesota, and other partners in the state undertake activity in a number of areas in order to serve the people of Minnesota and maintain Minnesota's role as a leader in organic farms, organic acreage, and organic activity.

Education and Information

- Coordinate organic education efforts for farmers and agricultural educators/advisors.
- Promote farmer-to-farmer networking in organics.
- Provide an annual organic conference or similar educational event for farmers and others.
- Dispel confusion about what organics are and are not -- increase the "organic literacy" of consumers through outreach and educational materials.
- Work with print and broadcast media to communicate with agricultural stakeholders (including farmers, businesses, lenders, and consumers) about developments and opportunities in organics.
- Provide information about organic opportunities and certification requirements to food, feed, meat, and poultry processors in Minnesota.

Research

- Continue support for long term organic cropping systems research at the U of M Southwest Research and Outreach Center; maintain and enhance current efforts in order to serve the increasing number of organic producers and those interested in transitioning to organic production in Minnesota and the Upper Midwest.
- Pursue research on organic crop variety development, composting, compost tea, and management of flies and parasites.
- Encourage organic conversion of acreage at additional University of Minnesota research and outreach centers.
- Encourage farmer-initiated, farmer-directed on-farm research and in-field evaluation, demonstrations of organic management practices, and model organic farms through participation in grant programs offered by entities such as the MDA Sustainable Agriculture Research and Demonstration Program, USDA Sustainable Agriculture Research and Education Program, and Organic Farming Research Foundation.
- Document environmental impacts of organic farming methods

Business and Market Development

- Assess current organic processing capacity for Minnesota-grown organic products and identify major barriers to the expansion of organic production and processing in Minnesota.

- Work toward long-term profitability of Minnesota organic farmers by helping them understand, evaluate, and implement marketing options.

- Help farmer groups learn about financial and business planning resources available to them.

- Help farmer groups explore and pursue value-added organic business opportunities, through MDA, AURI, and Resource Conservation and Development District programs, for example.

Policy and Regulatory Support

- Revise State organic statute to conform with federal law.
- Enforce Minnesota state labeling law with regard to organic product claims.
- Help Minnesota citizens who want to register complaints about possible organic law violations to contact the appropriate enforcement staff at USDA.

Technical and Financial Assistance

- Work with the National Organic Program to secure and distribute organic certification cost-share funds to Minnesota organic farmers and handlers.

- Explore and implement technical and financial assistance for growers transitioning to organic, including the NRCS EQIP organic transition cost-share program, Conservation Security Program, and other appropriate programs.

Leadership

- Expand the current multi-partner *Memorandum of Understanding on Organic Agriculture*.

- Continue collaboration, networking, and complementary efforts by state, university and non-profit stakeholders.

- Reauthorize MDA Organic Advisory Task Force to provide information and input to the Commissioner of Agriculture.

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Appendices

A. Minnesota Department of Agriculture Organic Advisory Task Force Members

B. Memorandum of Understanding for Organic Agriculture in Minnesota

C. Minnesota Organic Legislative History

D. MDA Divisional and Program Roles and Responsibilities in Organics

Appendix A. MDA Organic Advisory Task Force Members

Ron Desens	Sleeping Cat Organic Farm	Farmer
Charles Enderson	Country Choice Naturals	Organic Food Processor
Paul Flynn	Natural Resources Conservation Service	Ad hoc
Lisa Gjersvik	AURI SE Office	AURI
Jerry Januschka	Beef Farmer	At-Large Member
David O'Reilly	Shamrock Dairy Farm	Farmer
Curt Petrich	Grain Farmer	Farmer
Paul Porter	University of Minnesota Dept. of Agron. & Plant Genetics	At-Large Member
Jim Riddle	OrganicWorks!	Organic Food Certification Agency
Tom Taylor	Organic Consumers Association	Non-profit Environmental Organization
Lucia Watson	Chef and Restauranteur	Food Retailer or Distributor
Bill Wilcke	University of Minnesota BioSystems & Agricultural Engineering,	MN Extension Service

Appendix B. MOU on Organic Agriculture

MEMORANDUM OF UNDERSTANDING ON ORGANIC AGRICULTURE

AMONG THE

MINNESOTA DEPARTMENT OF AGRICULTURE, USDA NATURAL RESOURCES CONSERVATION SERVICE (MINNESOTA), UNIVERSITY OF MINNESOTA, UNIVERSITY OF MINNESOTA EXTENSION SERVICE, USDA FARM SERVICE AGENCY (MINNESOTA),

This Memorandum of Understanding (MOU) is entered into by the U.S. Department of Agriculture Natural Resources Conservation Service (Minnesota), the University of Minnesota, the University of Minnesota Extension Service, the Minnesota Department of Agriculture, and the U.S. Department of Agriculture Farm Service Agency *(hereinafter referred to as **the Partners)***. The Partners are engaged in compatible activities to enhance the productivity, profitability and environmental responsibility of the traditional and nontraditional agricultural and rural sectors in Minnesota. Areas of partner responsibility and expertise include production, processing, marketing, natural resource conservation and management, land use planning, and community development. Effective cooperation can aid significantly in advancing the missions of the Partners to include reaching underserved clientele in Minnesota.

I. AUTHORITY

This MOU is entered into in accordance with Minnesota Statute 31.94 subd (d) (3-5) which outline statutory duties of the Commissioner of Agriculture to direct programs of the department to work toward the promotion of organic agriculture in Minnesota, to inform agencies of how state or federal programs could utilize and support organic agriculture, and to work with appropriate organizations to identify opportunities and needs as well as ensure coordination and avoid duplication of state agency efforts regarding research, teaching and extension work relating to organic agriculture; as well as in accordance with the Soil Conservation and Domestic Allotment Act, as amended (Public Law 74-46, 49 Stat. 163, U.S.C. 590a-f); which established the Soil Conservation Service to conserve soil and water nationwide by providing technical assistance to farmers and ranchers among other things.

II. BACKGROUND

A. Organic Sector Growth and Development

Organics are a choice preferred by growing numbers of farmers and consumers. The USDA and trade groups have tracked organic sales growth at rates greater than 20 percent per year since 1990. Land in certified organic production more than doubled in Minnesota between 1997 and 2001; Minnesota leads the nation in the production of organic corn and soybeans. Through ecologically-based farming methods that emphasize soil and livestock health, farmers are producing food and other products for which a growing number of consumers will pay more. Preserving the identity of organically grown foods and agricultural products through processing and handling is crucial, and creates opportunities for new on-farm, rural, and tribal business enterprises in Minnesota to sell to local, regional, national and international buyers. It is the intention of the MOU Partner organizations to undertake complementary efforts that will help Minnesota farmers, Minnesota-based business enterprises, and Minnesota consumers make the most of the opportunities presented by this rapidly growing sector.

B. MOU Partner Organizations

Minnesota Department of Agriculture (MDA)

As the lead State agency for Minnesota agriculture, the MDA's mission is to work toward a diverse agricultural industry that is profitable and environmentally sound; to protect public health and safety regarding food and agricultural products; and to ensure orderly commerce in agricultural and food products. Functions include promotion, education, regulation, and enforcement in the areas of agricultural finance, agricultural marketing services, agronomy and plant protection, agricultural statistics, grain and produce inspection, and agricultural resources management and development.

MDA offers assistance to growers, businesses and consumers in a number of program areas, including: 1) organic certification cost share, 2) educational materials and information resources about organic certification and transition, 3) research and demonstration grants, 4) low-interest loans, 5) technical assistance, 6) marketing assistance, 7) networking referrals, 8) value added co-operative development, and 9) consumer protection and labeling law enforcement.

Minnesota Natural Resources Conservation Service (Minnesota NRCS)

Minnesota NRCS is the lead Federal agency for conservation on private land. In carrying out this role, Minnesota NRCS provides voluntary conservation planning and technical assistance to farmers, ranchers, and other landowners to address the natural resource concerns on Minnesota's private and nonfederal land.

Minnesota NRCS administers a variety of technical, Educational and financial programs, working in partnership with local conservation districts. These programs include: 1) providing technical assistance for conservation of soil, water, and related natural resources; 2) developing soil surveys and providing soil survey information and interpretations; 3) reducing potential flooding sedimentation damages; and agriculture-related pollution; 4) providing Natural Resource technical assistance to all operators including small farms, limited resource farmers, American Indians, and minorities; and 5) providing resource data for use by private landowners, groups, local and state governments, and other Federal agencies for land use planning.

University of Minnesota College of Agricultural, Food and Environmental Sciences

When a territorial House of Representatives created the University of Minnesota in 1851, the charter specified that an agriculture department was to be part of the University. The College of Agricultural, Food and Environmental Sciences is one of the oldest colleges within the University of Minnesota. Today, college priorities include exemplary, research-based education**,** promoting safe and healthy foods**,** improving environmental quality**,** enhancing agricultural systems, revitalizing Minnesota's rural communities, and serving urban communities**.** Faculty and staff members of the College work in all corners of the state, and around the world. Faculty, administrators, staff, and students collaborate with countless scientists, educators, and citizens to solve pressing problems facing food, agriculture, and the environment. The College helps complete the connection between Minnesota and the world economy. World-class educational programs prepare thousands of national and international leaders to address the complexities of an increasingly global, diverse and technological world.

University of Minnesota Extension

The mission of the University of Minnesota Extension Service is to connect community needs and University resources to address critical issues in the state. Extension is a partnership between the University and county government, with offices in every county. This partnership assures access to the knowledge base of the University by the connection of regional educators and

campus faculty. Extension is also part of a network of land-grant institutions that collaborate nationally and regionally, to provide even greater educational resources to address critical state issues.

Extension delivers research-based educational programs, provides information on specific issues, and identifies emerging needs in three areas: Land, Food and Environment, Community Development and Vitality, and Youth Development and Family Living.

Extension's goal is to provide quality educational programs and information that is current, relevant, and valued by citizens and communities across the state.

Farm Service Agency (FSA)
Stabilizing farm income, helping farmers conserve land and water resources, providing credit to new or disadvantaged farmers and ranchers, and helping farm operations recover from the effects of disaster are the missions of the U.S. Department of Agriculture's Farm Service Agency (FSA). Under a unique system, Federal farm programs are administered locally by eligible farmers. This grassroots approach gives farmers a much-needed say in how Federal actions affect their communities and their individual operations.

C. Areas of Need

Opportunities for cooperative organic agriculture efforts among Partners exist in a number of areas cited in a 2001 report to the Minnesota Legislature entitled *The Status of Organic Agriculture in Minnesota.* These areas include:

1. education and information,
2. marketing and promotion,
3. business development,
4. regulatory support,
5. technical and financial assistance,
6. policy and program support, and
7. research.

III. PURPOSE

The purpose of this MOU is to establish a framework for cooperation among Partner organizations and agencies on organic program activities that involve the conservation of natural resources, expansion of economic opportunity, and enhancement of consumer choice specifically related to products grown organically here in Minnesota.

IV. RESPONSIBILITIES

A. The Partners agree to work collaboratively to provide assistance within staffing and budget constraints to organic producers, processors/handlers and buyers/consumers in the State of Minnesota as follows:

1. To support time and efforts of staff in organic professional development, service delivery, and outreach efforts in a collaborative fashion.

2. To identify and share information about innovative organic programs taking place in other states, on tribal lands, and internationally.

3. To cooperate in developing and implementing conservation farm plans for organic crop production.

4. To encourage the use of demonstrations and field days with organic field operations to showcase conservation and organic production.

5. To share training opportunities to improve knowledge of respective functions and operations.

6. To share information on organic conferences, newsletters, and training opportunities.

7. To develop procedures to insure good communications and coordination at the various levels of each organization.

8. To seek other agency, institutional and nonprofit Partners to participate in this MOU.

9. To develop public information activities and measures to share with the general public the successes that are a direct or indirect result of the MOU.

B. It is understood by the Partners that:

1. This MOU is neither a fiscal nor funds obligating document. Any endeavor by any party that involves the reimbursement, contribution of funds, and transfer of anything of value between the parties will be handled in accordance with applicable laws, regulations, and procedures. Such endeavors shall be outlined in separate agreements; shall be made in writing by representatives by any party; and shall be independently authorized by appropriate statutory authority. This MOU does not provide such authority.

2. This MOU in no way restricts any party from participating in similar activities with other public or private agencies, or organizations, and individuals.

3. Each party agrees it will be responsible for its own acts and results thereof and shall not be responsible for the acts of the other parties and the results thereof. Each party therefore agrees that it will assume all risk and liability to itself, its agents or employees, for any injury to persons or property resulting in any manner from the conduct of its own operations, and the operations of its agents or employees, under this MOU, and for any loss, cost, damage, or expense resulting at any time from failure to exercise proper precautions, of or by itself or its own agents or its own employees, while occupying or visiting the projects under and pursuant to this MOU. The Federal Government's liability shall be governed by the provisions of the Federal Tort Claims Act (28 U.S.C. 2671-80), and the State's by the Minnesota Tort Claims Act (Minnesota Statute §3.736).

V. DURATION

This MOU shall become effective the date of the last signature and continue in effect for a period of five years or until modified or terminated. This MOU may be modified or amended upon written consent of all signatories. Any party may terminate its commitment to the MOU with 30-day written notice to all other parties.

VI. PROVISIONS

A. All activities and programs conducted under this MOU shall be administered in accordance with the requirements of title VI of the Civil Rights Act of 1964, Title IX of the Education Amendments of 1972, Section 504 of the Rehabilitation Act of 1973, the Age Discrimination Act of 1975, the Department of Justice (DOJ) regulations enforcing nondiscrimination requirements, and departmental rules and regulations. Compliance ensures access to all aspects of program delivery of benefits and services to the public without regards to their race, color, national origin, religion, sex, age, disability, marital status, familial status, parental status, sexual orientation, or because all or part of an individual's income is derived from any public assistance program.

B. All activities conducted under this MOU shall be in compliance with the Drug-Free Workplace Act of 1988 (Public Law 100-690, Title V, Subtitle D).

Accepted by the following on April 21, 2003

GENE HUGOSON
Commissioner of Agriculture
Minnesota Department of Agriculture

WILLIAM HUNT
State Conservationist,
Natural Resources Conservation Service

CHARLES C. MUSCOPLAT
Dean and Director of Agricultural Policy,
University of Minnesota – College of Agricultural, Food and Environmental Sciences
Director, Minnesota Agricultural Experiment Station

CHARLES H. CASEY
Dean and Director
University of Minnesota Extension Service

JOHN MONSON
STATE EXECUTIVE DIRECTOR
Farm Service Agency

Appendix C. Minnesota Organic Legislative History

1985 Chapter 237 §§ 3 – 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 Chapter 688 article 8 § 1, article 21 § 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 Chapter 350 article 20 § 14

- Appropriates $100,000 for a grant to a certification organization to continue the certification process authorized above

1990 Chapter 547 §§ 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 Chapter 231 §§ 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 Chapter 107 §§ 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 strengthen the agency's ability to provide technical, financial, and marketing services to support organic farmers and the organic industry.
- 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.

DRAFT
9/16/02

Appendix D. MDA Organic Activity

Proposed division/program roles and responsibilities in organics

Vision: Minnesota will be one of the top three states in the production of organic food products.

Topic/Division	Ag Resource Mgmt and Development Division (ARMD)	Ag Marketing Division (AMS)
Marketing/promotion	• Help growers and processors find each other (joint w/ AMS) • Work with AMS to publicize opportunities to growers • Co-coordinate "Organic Harvest Month" • Help growers form joint business ventures to market product	• Help growers and processors find each other (joint w/ ARMD) E.g., buyer/seller "organic marketplace/chat room/hotline/message board on MDA Organic website • Conduct market demand/opportunity research • Work with ARMD to publicize market opportunities to growers • Pursue identity development for Minnesota grown/processed organic products • Recruit organic processors/retailers for food shows • Help farmers develop successful marketing strategies • Encourage processors to use organic ingredients grown by Minnesota farmers. • Co-coordinate "Organic Harvest Month" • Help processors form joint business ventures to market products
Technical/financial	• Help producers evaluate organics as an option • Administer cost share program – producer and processor • Technical assistance to producers (organic systems) • Demonstration grants, field research, and field days • Enter into partnerships to conduct appropriate research • Sustainable Ag Loan program and Ag BMP Loan Program (as applicable) • Work with NRCS on EQIP transitional program • Support grower mentoring programs and linkages • Seek funding from federal and private sources to support collaborative activities • Offer comprehensive information on MDA Organic website	• Evaluate and assist companies in development, processing, packaging, marketing, financial, technical, certification, and enforcement. • Provide risk management education/assistance to producers

Certification	• Provide information about certification standards to growers, others • Maintain and provide information about accredited certifiers • Support grower:grower mentoring. • Develop diversification-oriented tools to assist grower decisionmaking.	• Provide information about certification standards to processors, others • Establish a business:business mentoring program.
Consumer issues	• Work with AMS and CO to provide general consumer info about organics • Include consumer information on ESAP organic website	• Minnesota Grown Directory • Domestic trade shows • Minnesota Showcase • Consumer-oriented organic website • Work with AMS and CO to provide general consumer info about organics
Policy	• Serve as point of contact with National Organic Program (USDA) • Participate in Natnl. Assn of State Organic Programs • Update State organic statute as needed • Respond to legislative concerns (production, infrastructure, rural issues) • Survey producer needs and priorities yearly • Staff Organic Advisory Task Force	• Monitor national and international organic trade policy • Monitor national and international GMO policy • Respond to legislative concerns (commerce and trade) • Work with processor advisory board or committee
Enforcement	• Refer concerns about alleged violations as appropriate (e.g., USDA, Food & Dairy) • Communicate with NOP about enforcement issues	• Refer concerns about alleged violations as appropriate (e.g., USDA, Food & Dairy)

Key roles for other MDA divisions: Document and monitor growth of organics (farm and food sectors) – AMS
Design and maintain single MDA organic website incorporating info from ARMD, AMS, other divisions as appropriate.

Internal working group members:

Commissioner's Office: Jim Boerboom, Assistant Commissioner
Ag Resources Division: Jerry Heil, Director; Mary Hanks, Supervisor; Meg Moynihan, Diversification Specialist
Ag Marketing Division: Kurt Markham, Director; Paul Sand, Marketing Specialist