

Organic Agriculture in Michigan

2006 Survey Report



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Preface

This report is part of a collaborative project by Michigan State University (MSU) and the Michigan Organic Food and Farm Alliance (MOFFA) to identify the opportunities for more Michigan fruit and vegetable growers to participate in the growing market for organic produce.¹ It is the first status report on organic agriculture that presents data about Michigan's organic agriculture community. The report is presented for use in the development of policy, research and extension priorities to support the growth and diversification of Michigan organic production and marketing.

This report presents results from a 2006 Michigan survey of certified organic growers and processors in Michigan along with the following sources of data:

- US Department of Agriculture, Economic Research Service (USDA/ERS) surveys of organic agriculture in the US from 1992 through 2005. These data are available at www.ers.usda.gov/Data/Organic.

IMPORTANT NOTE: The 2005 USDA/ERS data for Michigan are adjusted to compensate for two anomalies. **First**, the number of fruit production acres reported in the USDA/ERS 2005 dataset includes the number of acres that in previous years were classified in the "Other" category. Based on our discussions with USDA/ERS, we determined that this inflated the Michigan data by 1,500 acres for 2005. *The adjusted figures for fruit production acres in this report do not include these 1,500 acres.* **Second**, the Organic Growers of Michigan (OGM) did not submit data for the USDA/ERS 2005 survey. Thus, the dataset for Michigan **does not include** data on any Michigan growers who were certified only by OGM at the time of the USDA/ERS request of data. As a result, the published USDA/ERS 2005 data for Michigan show a significant decline in the number of certified organic farmers and in the number of vegetable production acres. *The adjusted Michigan figures on the number of certified organic farmers and the number of acres in certified organic vegetable production are based on data for 2005 that were submitted to us by OGM.*

- The Michigan results from the Organic Farming Research Foundation (OFRF) 3rd and 4th National Organic Farmers' Surveys. Since there were only 19 Michigan respondents to the 4th Survey, we more often reference the 3rd Survey in this report. The national survey data are available at www.ofrf.org.

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Any opinions, findings, conclusions or recommendations expressed in this report are those of the authors and do not necessarily reflect the views of MOFFA, the US Department of Agriculture or MSU.

¹ The project, "*The Transition to Organic in Michigan - Production and Marketing Constraints and Opportunities*," is part of Special Research Grant 2005-34333-15581, Sustainable Agriculture 2005: Sustainable Agriculture and Food Systems, awarded to Michigan State University by the United States Department of Agriculture Cooperative Research, Education and Extension Service. For a description of the survey and other data used for this report, see Appendix 1.

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List of Acronyms & Key to Abbreviations

MDA	Michigan Department of Agriculture
MSU	Michigan State University
MOFFA	Michigan Organic Food & Farm Alliance
NOP	National Organic Program
OFRF	Organic Farming Research Foundation
OGM	Organic Growers of Michigan
OTA	Organic Trade Association
USDA/ERS	US Department of Agriculture/Economic Research Service
3rd OFRF Survey	3rd National Organic Farmers' Survey by OFRF (2002)
4th OFRF Survey	4th National Organic Farmers' Survey by OFRF (2004)
2006 Survey	2006 Michigan Survey of Certified Organic Farmers and Processors/Handlers

Executive Summary

With funding from the Sustainable Agriculture 2005: Sustainable Agriculture and Food Systems grant, Michigan State University and the Michigan Organic Food and Farm Alliance mailed a survey to the 261 organic farmers and processors/handlers in Michigan who were certified organic in 2005. Ninety-seven farmers and 19 processors/handlers returned surveys. This report provides an overview of organic agriculture in Michigan, the 2006 survey results, and recommendations for future action.

USDA/ERS 1997-2005 Overview. As of 2005, Michigan has 205 certified organic farmers and 56 certified organic processors or handlers. The 45,500 certified organic acres comprise .4% of the state's total farmland. Eighty percent of Michigan's certified organic cropland is in beans and grains; 2% is in vegetables and 3% in fruit.

From 1997 to 2005, the number of certified organic acres in the United States grew by 63% while Michigan certified organic farmland increased by 166% over the same period. Michigan ranks among the top 20 states in total organic acreage, and is 1st in the number of organic spelt acres, 2nd in organic beans and 6th in organic fruit.

In comparison to other Upper Midwest states, Michigan ranks 5th in the number of certified farms and 6th in the number of cropland acres.

2006 Michigan Organic Survey. The average size of organic farms in Michigan varies significantly by farm production type. Certified organic fruit and vegetable farms average 117 acres with an average of 85 acres under production. The average organic bean and grain farm is 360 acres with 340 acres under production.

Most certified organic farmers (63%) farm full-time, but also depend upon some off-farm source of income. These farmers provide between 1 and 5 full-time jobs per year, while part-time farmers provide between 1 and 2 full-time jobs per year.

Most of the state's certified organic farmers (66%) have transitioned from non-organic production practices into organic production, and over 75% of them have been certified for 10 years or less.

The most important practices in farmers' soil fertility management are: the use of cover crops and crop rotations, and the use of off-farm manure and off-farm compost. Weed control ranks as the top production problem for all types of crop farms, and livestock producers identify the lack of access to organic processing options and organic feed as their most significant problems.

Michigan's certified organic farmers, similar to others around the country, turn most often to other farmers to deal with their production-related questions.

The state's organic fruit and vegetable farmers, as well as those raising livestock, sell primarily in local (Michigan) markets, while bean and grain farmers are active in regional, national and international markets. All types of farmers engage in diverse types of marketing and combine direct to consumer, with direct to retail, wholesale and contract marketing.

Michigan vegetable processors sell primarily in local and state markets while livestock processors sell equally in local, state, regional and national markets.

Most Michigan certified organic farmers are satisfied with the organic inspection process. In 2005, 40% participated in the MDA certification cost-share program. The state's organic farmers express an interest in more marketing promotion and policy support.

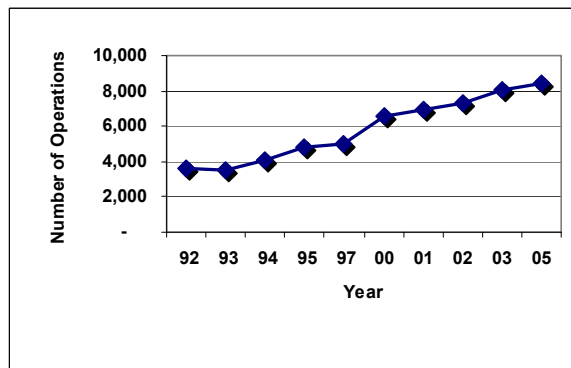
Recommendations.

- Implement a Michigan-based biennial census of organic producers and processors that would create baseline data about organic agriculture in Michigan to guide research, advocacy and policy-making.
- Assess whether NOP certification costs and bookkeeping requirements, as well as the lack of a local certifying entity, create a barrier to certification for Michigan farmers who follow organic practices.
- Focus research for soil fertility management on techniques most widely used by organic farmers--cover crops, crop rotations, and use of off-farm manure and compost. Include analysis of a range of factors related to these practices such as costs, quality assessment and environmental and food safety implications.
- Develop resources to help farmers organize and collaborate to market and promote Michigan organic products.
- Provide networking resources to link interested organic farmers to each other to share knowledge, information and experiences.
- Assess how tax-supported agencies and institutions can better serve the needs of Michigan's organic agriculture community.
- Increase participation by organic farmers in government programs that provide financial support for practices that achieve public benefits.
- Increase production of Michigan certified organic fruits and vegetables.

I. Organic Production and Marketing in the US

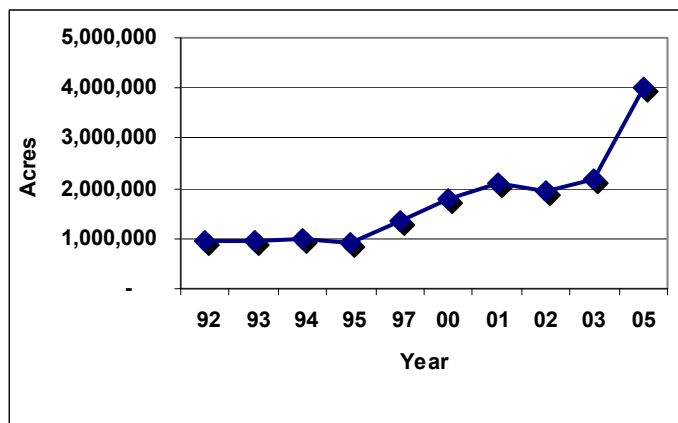
The number of certified organic farms and the acres of farmland in certified organic production in the US more than doubled from 1992 to 2005 (Figures I-1 and I-2).² In 2005, just over 8,000 US farmers had 4 million acres in certified organic production. California, North Dakota, and Montana lead with the largest number of acres in certified organic crops, while Texas, Alaska, and California rank highest in the number of acres in organic pasture and range. Despite this important growth in organic agriculture across the US, the USDA/ERS reports only about 0.5 percent of all US cropland and 0.5 percent of all US pasture is certified organic.

Figure I-1. US Certified Organic Farms 1992-2005



Source: USDA/ERS

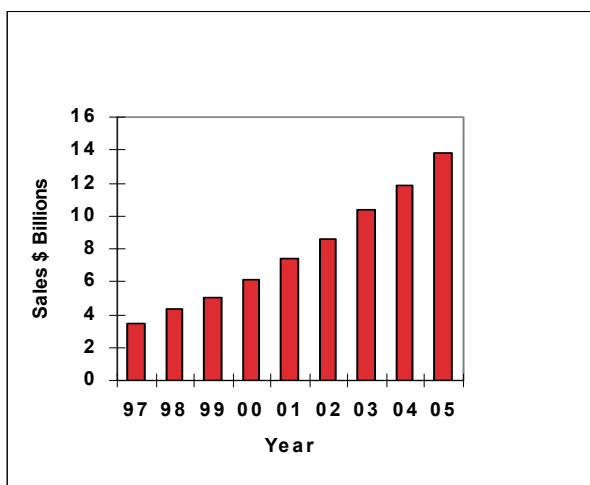
Figure I-2. US Certified Farmland 1992-2005



Source: USDA/ERS

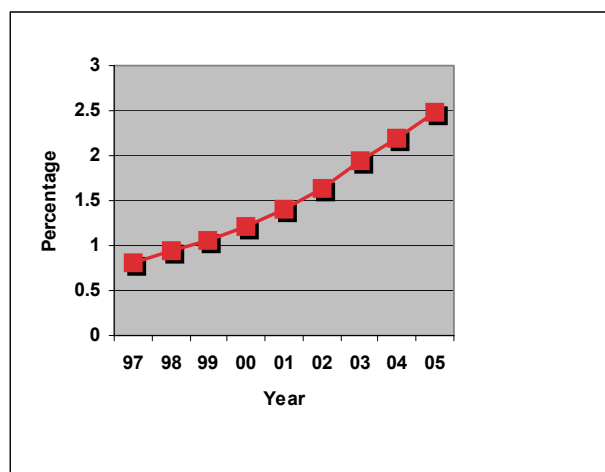
According to the Organic Trade Association (OTA), the leading trade group for the US organic industry, organic food sales continue to grow about 20% per year and now represent 2.5% of total US food sales (Figures I-3 and I-4).³

Figure I-3. US Organic Food Sales and Growth, 1997-2005



Source: OTA

Figure I-4. US Organic Sales: % of Total Food Sales, 1997-2005



Source: OTA

² USDA/ERS definitions are: *Farmland* is the total amount of land under cultivation and in pasture or range; *Cropland* refers to land in field crops, fruits, vegetables, and nuts; *Pasture/Rangeland* refers to land used only for pasture and grazing. An increase in certified pastureland accounts for most of the significant jump, 2 million acres, in certified farmland between 2003 and 2005.

³ OTA 2006 Manufacturer Survey, Overview at <http://www.ota.com/organic/mt.html> (accessed August 14, 2006). Fruit and vegetables account for almost 40% of sales and are the largest segment of organic food sales.

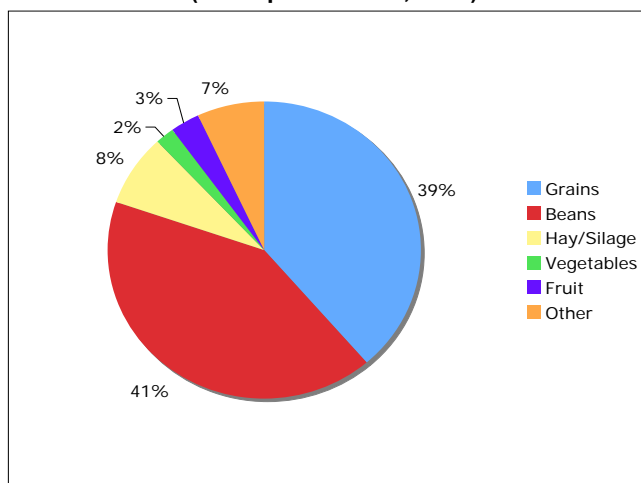
II. Michigan Organic Agriculture - 1997-2005

Overview

In 2005, Michigan had:

- 205 certified organic farmers in 47 of Michigan's 83 counties.⁴
- 56 certified organic processors or handlers.
- 45,500 certified organic acres, of which 97% is in cropland and 3% in pasture and rangeland. This represents .4% of Michigan's total farmland (10,100,000 acres).
- 80% of Michigan's certified organic cropland in beans (including dry beans, soybeans, dry peas & lentils) and grains (Figure II-1).
- 2% of the state's certified organic cropland in vegetables, 3% in fruit, 8% for hay/silage and 7% in cover crops and a variety of uses classified by USDA/ERS as "Other."⁵

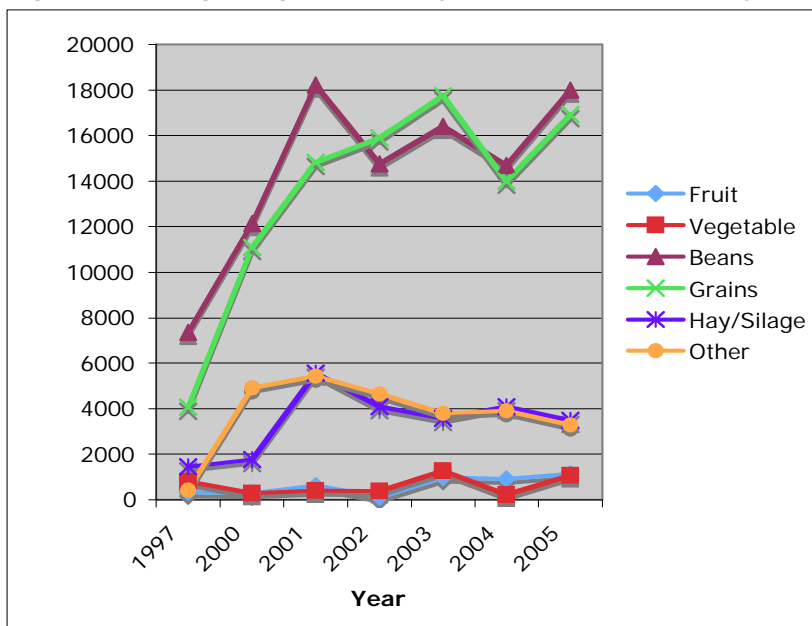
Figure II-1. Michigan: Distribution of Organic Production (% Cropland Acres, 2005)



Source: USDA/ERS

Since 1997, the number of acres under certified organic bean and grain production has increased more than that for other certified organic crops (Figure II-2).⁶

Figure II-2. Michigan Organic Acres, by Crop 1997, 2000-2005 (adjusted)



Other = Land that is fallow, in green manure & unclassified; see footnote 5.
Source: USDA/ERS

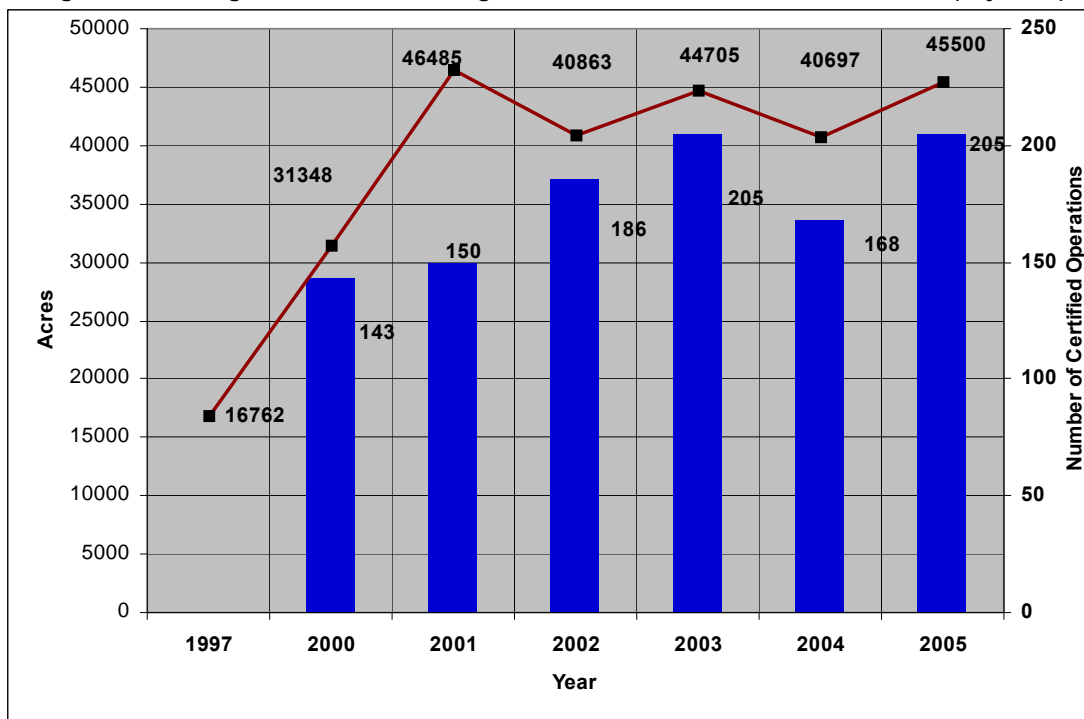
⁴ The USDA/ERS data for 2005 show only 165 certified organic farms in Michigan. In contrast, all certifiers, including OGM, in Michigan report 205 farmers for 2005.

⁵ Other = green manure, cover crops, plus Christmas trees, ginger, wheat grass, sprouts, vetch, clover, alfalfa and rye seed, shade and ornamental trees, Indian corn, CRP land, and wildlife habitat.

⁶ USDA/ERS acreage data has been adjusted as described in the Preface and later in this Section.

This growth in certified organic acres is especially noteworthy in comparison to overall trends for similar crops in Michigan between 1997 and 2002. Total certified organic beans more than doubled between 1997 and 2002 from 7,335 acres to 14,753 acres, while all beans increased by only 11% or 237,865 acres (from 2,076,585 acres to 2,314,450 acres). Acres of organic grains more than tripled while all grains decreased by 10% or -292,877 acres (from 2,809,345 acres to 2,516,468 acres).

Figure II-3. Michigan, Total Certified Organic Farmland & Farms 1997, 2000-2005 (adjusted)



Number of farms not recorded for 1997.
Source: USDA/ERS

This growth in certified organic agriculture contrasts with overall agricultural trends in the state. According to the 2002 Census of Agriculture, the number of farms in Michigan declined slightly from 53,519 in 1997 to 53,315 in 2002 while farmland dropped 3 percent from 10,443,935 acres in 1997 to 10,142,958 acres in 2002.

Michigan Organic Agriculture – National Comparison

Michigan ranks among the top 20 states in total organic acreage (Table II-1). From 1997 to 2005, the number of US certified organic acres grew by 63%, while Michigan certified organic farmland increased by 166% over the same period (Figure II-3).⁷ The state ranks 12th in the number of certified organic farms, and the 205 certified organic farmers represent 2% of the total US certified organic operations. Michigan's 45,500 certified organic acres represent 1% of the total 4,000,000 certified organic acres in the US.

Table II-1. Total Certified Organic Farms, Farmland and Cropland (Acres), Top 20 States, 2005 (adjusted)

Rank	State	Certified Farms	Rank	State	Total Certified Farmland	Rank	State	Total Certified Cropland
1	California	1912	1	Alaska	1460205	1	California	222557
2	Wisconsin	580	2	California	346583	2	North Dakota	143322
3	Washington	527	3	Texas	328477	3	Montana	126450
4	Iowa	453	4	Montana	229883	4	Minnesota	116813
5	Minnesota	433	5	North Dakota	181133	5	Wisconsin	91030
6	New York	427	6	Minnesota	129064	6	Texas	87124
7	Vermont	366	7	Wisconsin	122338	7	Idaho	81220
8	Oregon	317	8	Colorado	111021	8	Kansas	80180
9	Pennsylvania	308	9	Idaho	100631	9	Nebraska	77820
10	Maine	288	10	Wyoming	100592	10	Iowa	64158
11	Ohio	284	11	Nebraska	95475	11	South Dakota	60098
12	Michigan	205	12	Kansas	82484	12	New York	53172
13	Idaho	198	13	Iowa	74964	13	Colorado	50225
14	Texas	192	14	South Dakota	72825	14	Michigan	44086
15	North Dakota	159	15	New York	68864	15	Utah	41039
16	Montana	145	16	Vermont	48759	16	Washington	37346
17	Hawaii	137	17	Oregon	46550	17	Vermont	36810
18	Illinois	131	18	Michigan	45500	18	Ohio	34502
19	Nebraska	131	19	Utah	45297	19	Wyoming	34302
20	Colorado	111	20	Washington	41102	20	Oregon	33308

Source: USDA/ERS



⁷ As noted in the Preface, this report adjusts the 2005 USDA/ERS data for Michigan. The total of 45,499 acres for 2005 shown in Figure II-3 incorporates an estimated 980 acres certified by OGM for 2005 and that are not reflected in the number of acres (44,519) reported by the USDA/ERS.

Michigan ranks 18th among all states in total certified organic farmland, but 14th in total certified cropland.⁸ From 1997 to 2005 the number of organic acres in most grains, beans, oilseeds, hay and silage, vegetables and fruits increased significantly. As of 2005, the state ranks 1st in the number of organic spelt acres, 2nd in organic bean acres (following Minnesota), and 8th in organic fruit acres (Table II-2).

Table II-2. Growth and Rank in Certified Organic Crops and Livestock in Michigan, 2005 (adjusted)⁹

	Organic Crops	Acres		% of US Total	Michigan Rank (total states)
		1997	2005		
Grains	Corn	931	6522	5%	8(35)
	Wheat	801	3856	1%	15(33)
	Oats	256	1286	3%	10(32)
	Barley	387	232	<1%	17(25)
	Spelt	680	3677	45%	1(14)
	Buckwheat	150	76	1%	9(19)
	Rye	119	182	2%	9(25)
	Other	732	1091	2%	10(31)
	Total Grains	4068	16922	3%	10(42)
Beans	Soybeans	6103	15456	13%	3(33)
	Dry Beans	826	2,391	23%	2(19)
	Dry Peas and Lentils	0	76	<1%	10(16)
	Other	405	74	1%	13(21)
	Total Beans	7335	17997	12%	2(40)
Oilseeds	Sunflowers	105	176	3%	8(20)
	Total Oilseeds	105	176	<1%	15(25)
Forage	Alfalfa Hay	445	714	<1%	21(33)
	Hay Silage	77	22	<1%	19(24)
	Pasture and Hay	928	2,748	1%	20(39)
	Total Hay and Silage	1450	3484	1%	23(41)
Vegetables	Mixed and Other Vegetables	803	(1079)	1%	9(49)
	Total Vegetables	803	(1079)	1%	9(49)
Fruit	Apples	228	545	4%	4(23)
	Unclassified (other)*	109	(595)	1%	4(40)
	Total Fruit	337	(1140)	1%	8(42)
Livestock			Number		
	Beef Cows	1800	452	<1%	19(36)
	Dairy Cows	160	595	<1%	16(30)
	Sheep & Lambs	9	164	<1%	9(20)
	Chickens and other poultry	40	117210	<1%	11(35)
	Other Livestock	0	733	<1%	17(32)
	Total Livestock	2009	119154	<1%	11(42)

*Fruit--Unclassified (other) includes wild crafted berries, nuts, paw paws and mushrooms
Source: USDA/ERS

⁸ This reflects the comparatively low percentage of certified organic pasture and rangeland in the state.

⁹ The USDA/ERS 2005 data for Michigan show 99 acres in vegetables and 2640 acres in fruit. The number of vegetable acres reported in Table II-2 includes the estimated 980 acres certified by OGM for 2005. The number of acres in fruit production has been adjusted downward from the number of acres reported by USDA/ERS and excludes 1500 wild crop acres that in all previous USDA/ERS reports were included in the "other" fruit category. The table does not include the USDA/ERS category of "Other Crops" totaling 3288 acres.

Michigan Organic Agriculture – Upper Midwest Comparison

Within the nine Upper Midwest states (Illinois, Indiana, Iowa, Michigan, Minnesota, North Dakota, Ohio, South Dakota, and Wisconsin), Michigan ranks 5th in number of certified farms and 6th in the number of acres in cropland and in organic farmland (Table II-3).

Michigan leads in the number of certified organic acres devoted to fruit and vegetables (Table II-4).

Table II-3. Upper Midwest States, Certified Organic Farms and Farmland, 2005 (adjusted)¹⁰

	Number of Certified Farms	Crop Acres	Pasture & Rangeland Acres	Total Farmland Acres	% Cropland	% Pasture & Rangeland
Illinois	131	24,682	1,694	26,376	94%	6%
Indiana	43	4,253	903	5,156	82%	18%
Iowa	453	64,158	10,806	74,964	86%	14%
Michigan	(205)	(44,086)	1,414	(45,500)	97%	3%
Minnesota	433	116,813	12,250	129,064	91%	9%
North Dakota	159	143,322	37,811	181,133	79%	21%
Ohio	284	34,502	5,219	39,721	87%	13%
South Dakota	90	60,098	12,727	72,825	83%	17%
Wisconsin	580	91,030	31,308	122,338	74%	26%

Source: USDA/ERS

Table II-4. Upper Midwest States, Distribution of Certified Cropland (acres), 2005 (adjusted)¹¹

	Grains	Beans	Oilseeds	Hay/Silage	Vegetables	Fruit	Greenhouse	Other
Illinois	12,907	6,728	20	3,635	357	5	145	885
Indiana	1,612	1,147	22	1,243	41	26	2	161
Iowa	26,875	15,889	678	19,083	167	25	112	1,329
Michigan	16,922	17,997	176	3,484	(1,079)	(1,140)	0	(3,288)
Minnesota	48,020	28,462	2,965	27,984	750	80	46	8,506
North Dakota	45,193	9,655	22,900	37,626	65	0	0	27,883
Ohio	15,510	8,330	314	8,229	581	57	223	1,259
South Dakota	27,278	4,748	5,217	16,487	29	6	19	6,315
Wisconsin	30,886	10,762	45	41,774	928	291	2,624	3,721

*Greenhouse = nursery crops, nursery trees & plant starts

**Other = green manure, cover crops, plus Christmas trees, ginger, wheat grass, sprouts, vetch, clover, alfalfa and rye seed, shade and ornamental trees, Indian corn, CRP land, and wildlife habitat.

Source: USDA/ERS

¹⁰ The number of acres in farmland (44,519) and cropland (43,105) in Michigan reported by the USDA/ERS for 2005 are adjusted to incorporate the estimated number of acres (980) certified by OGM. See Appendix 2 for data from 1997, and from 2000-2005 on the distribution of cropland among the Upper Midwest States by crop (beans, fruits, grains, vegetables) and for livestock and poultry.

¹¹ See footnote 10.

III. Profile of Michigan Organic Farms and Farmers

The profile of Michigan organic farms and farming presented in this section is based on the results from the 2006 survey of the state's 205 certified organic farms.¹² A total of 97 farms from 47 of the state's 83 counties returned the survey, a response rate of 47% (97 of 205). These certified farms represent 19,297 acres and they are located largely in the southern part of the Lower Peninsula (Table III-1). The largest concentration of certified organic farms and acres is found in the East/Central region (Figures III-1 and III-2).

Table III-1. Certified Organic Acres in Michigan, by Region (MDA), 2005

Region ¹³	Acres (%)
1 Upper Peninsula	500 (3)
2 Northern	266 (1)
3 West	719 (4)
4 East/Central	12032 (62)
5 Southwest	1225 (6)
6 Central	3104 (16)
7 Southeast	566 (3)
Unidentified ¹⁴	875 (5)
Total	19297

Source: MSU/MOFFA 2006 Survey

Figure III-1. Michigan Certified Organic Acres by County, 2005 (MDA Regions)

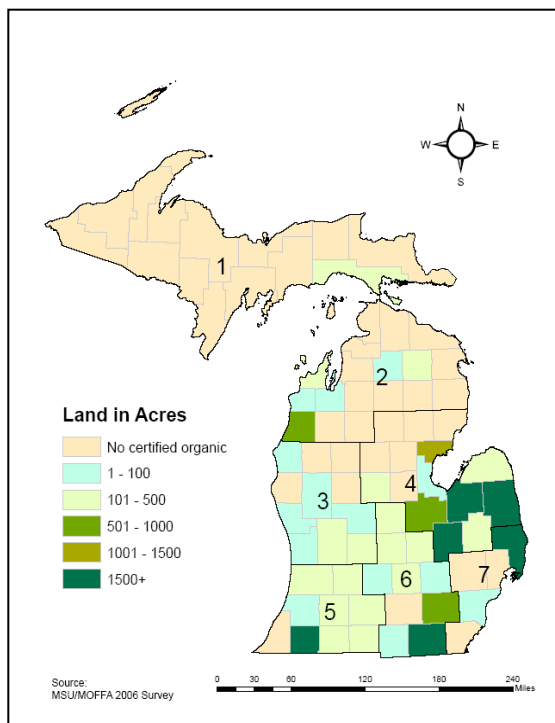
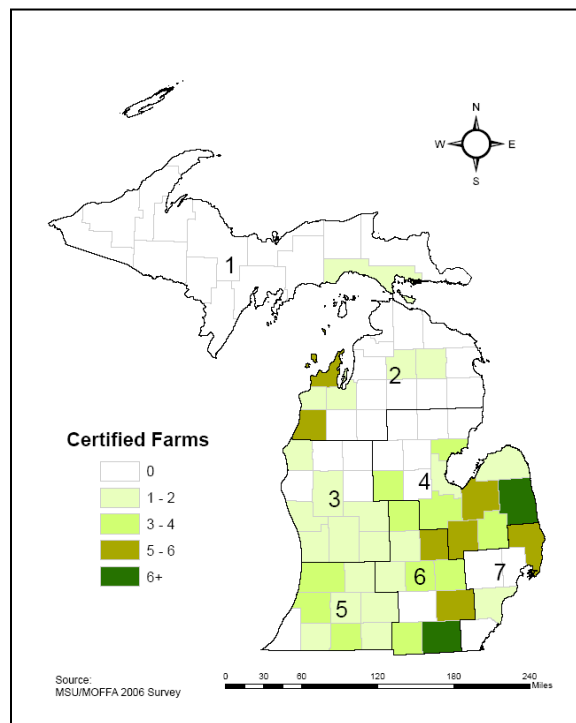


Figure III-2. Michigan Certified Organic Farms by County, 2005 (MDA Regions)



¹² The profile also includes comparisons using the Michigan dataset from the 3rd OFRF Survey. Results for the 2006 survey are presented in terms of the number of respondents to each question, not the total number of surveys returned.

¹³ Regions as used by the Michigan Department of Agriculture (MDA). The counties in each region are listed at: http://www.michigan.gov/mda/0,1607,7-125-2961_6860_7306---,00.html

¹⁴ Certified organic acres reported by survey respondents without identifying the location by county.

As Table III-2 shows, and comparable to the USDA/ERS data presented above (Table II-1), organic agriculture in Michigan is divided into two distinct types of farming: fruit and vegetable that represent 4% of the state's certified organic acres; and, bean and grains that represent 89% of the state's organic acres. Fruit and vegetable farms are found in all of the state's regions, but bean and grain farms are concentrated in the East/Central region.

Characteristics of Michigan Organic Farms and Farmers

Based on those respondents providing data about their farm size, Michigan farms with certified land range in size from 1 to 2400 acres. The median size of these farms is 135 acres, and the median number of certified organic acres on these farms is 110 acres.¹⁵ Farm size varies significantly by type of farming. Organic fruit and vegetable farms range in size from 2 to 1500 acres. The median size of these farms is 117 acres with a median of 41 acres under certified organic cultivation. In contrast, organic bean and grain farms range in size from 25 to 2400 acres. Their median size is 200 acres with a median of 186 acres under certified organic cultivation. See Table III-3.

**Table III-2. Distribution of Major Crops and Livestock, 2005
(% Total Crop Acres)**

	Organic Crops	Total Acres
Grains	Corn	2994
	Wheat	1912
	Oats	674
	Barley	67
	Spelt	1784
	Rye	161
	Other	2282
	Total Grains	9874 (54%)
Beans	Soybeans	5418
	Dry Beans	1015
	Total Beans	6433 (35%)
Hay and Silage	Hay, alfalfa or other	1196
	Total Hay and Silage	1196 (6%)
Vegetables	Mixed and other Vegetables	352
	Total Vegetables	352
Fruit	Apples	278
	Other	239
	Total Fruit	394 (4%)
Livestock	Total Acres in Crops	18249
	Beef Cows	641
	Dairy Cows	243
	Sheep & Lambs	0
	Chicken and other Poultry	214630
	Other	862
	Total Livestock	216376

Source: MSU/MOFFA 2006 Survey

Table III-3. Farm Size by Farm Type

Farm Type	Average Acres		Median Acres		Range (acres)	
	Farm	Certified Cultivated	Farm	Certified Cultivated	Farm	Certified Cultivated
All Farms	260	237	135	110	1-2400	0.5 - 2200
Fruit & Vegetable	117	85	41	40	2-1500	0.5-600
Bean & Grain	360	340	200	186	25-2400	25-2200

Source: MSU/MOFFA 2006 Survey

Most certified organic farmers (63%) farm full-time, but also depend upon some off-farm source of income.¹⁶ Those describing themselves as part-time farmers receive less than 76% of their net family income from farming; 83% of them receive 25% or less of their net family income from farming.

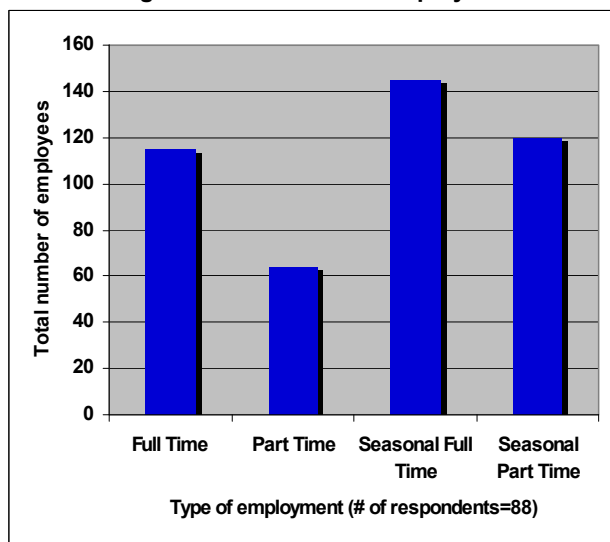
¹⁵ According to the USDA/NASS--Michigan Field Office, the average size farm in Michigan is 191 acres.

¹⁶ The 3rd OFRF Survey found that only 50% of Michigan's certified organic farmers were farming full-time.

Of those responding (88), they employ a total of 444 people, including family members (Figure III-3). Not including themselves, full-time organic farmers provide between 1 and 5 full-time jobs a year; part-time farmers provide between 1 and 2 full-time jobs a year.

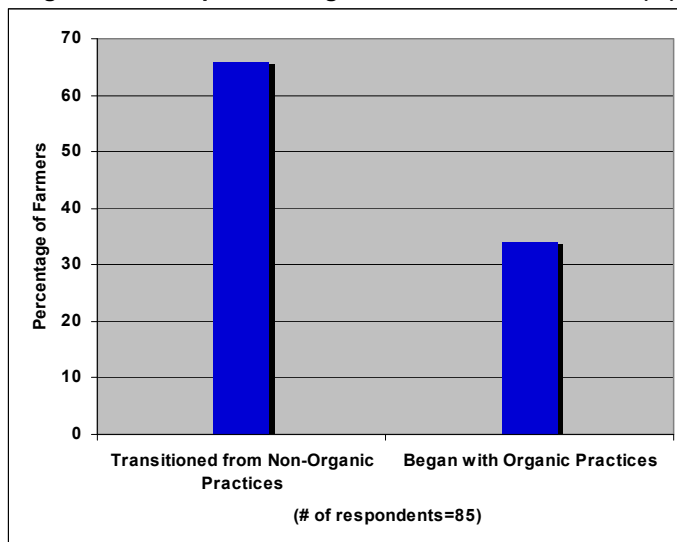
Two-thirds (56) of the responding certified organic farmers have transitioned from non-organic production practices (Figure III-4) into organic production. Of this group who have transitioned, 35, or over 60%, are bean and grain farmers.¹⁷

Figure III-3. Number of Employees



Source: MSU/MOFFA 2006 Survey

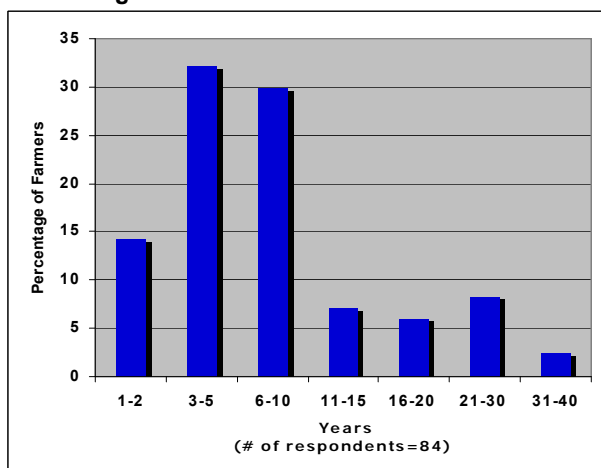
Figure III-4. Adoption of Organic Production Practices (%)



Source: MSU/MOFFA 2006 Survey

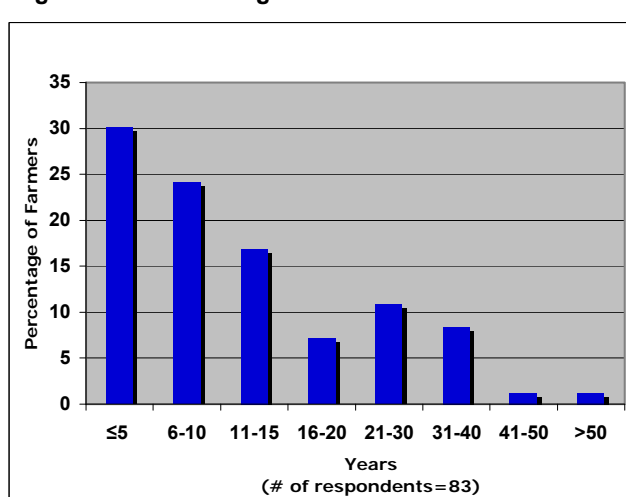
Over 75% of Michigan's organic farms have been certified for a relatively short period of time (10 years or less); but nearly one-half (45%) have been following organic practices for more than 10 years (Figures III-5 and III-6).¹⁸

Figure III-5. Number of Years Certified



Source: MSU/MOFFA 2006 Survey

Figure III-6. Use of Organic Practices: Number of Years



Source: MSU/MOFFA 2006 Survey

¹⁷ This finding contrasts with the 3rd OFRF Survey which reports that only 53% of Michigan's organic farmers had transitioned into organic while 47% began by farming organically.

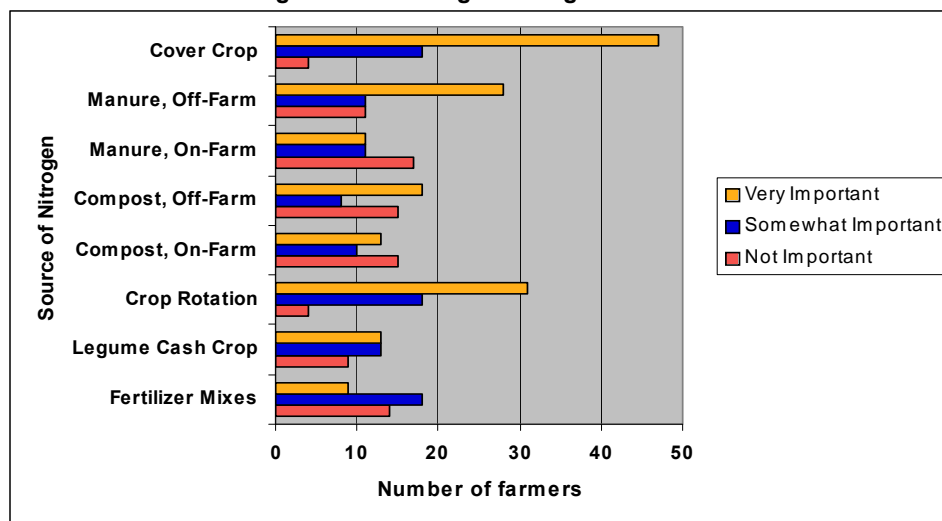
¹⁸ These findings are comparable to those from the 3rd OFRF Survey results for Michigan: 79% of organic farmers had been certified for less than 10 years, while 21% had been farming organically for more than 10 years. In addition, in the 3rd OFRF Survey, 55% of Michigan farmers reported following organic practices for less than 10 years, while 45% had grown organically for 10 or more years.

IV. Organic Practices

Soil quality and its management are fundamental features of organic farming, often referred to as soil health.¹⁹ Despite the importance of soil quality and fertility management strategies for organic farmers, it is often difficult for them to find useful information on soil and plant nutrition indicators for organic systems. For example, farmers participating in a Midwest region project called The New Agriculture Network rank questions about nitrogen management within organic systems as a priority concern.²⁰

In order to obtain preliminary information on soil quality management, the 2006 survey included a section on nitrogen management as well as several questions focused on other production practices. Survey results are described in this section.

Figure IV-1. Rating of Nitrogen Sources



Source: MSU/MOFFA 2006 Survey

Nitrogen Management

Farmers were asked to rate the importance of different nitrogen sources used on their farms on a scale of very important to not important.²¹

The sources rated included legume cash crop, cover crop, crop rotations, on-farm compost, on-farm manure, off-farm compost, off-farm manure, and fertilizer mixes (Figure IV-1 and Table IV-1). Sixty-nine farmers responded to this question.

The use of cover crops is the most important source of nitrogen in Michigan organic farmers' soil fertility management strategy and practices, followed by crop rotations and off-farm manure, then by the cultivation of a legume cash crop and the use of off-farm compost.

Table IV-1. Rank of Primary Sources of Nitrogen

Source of Nitrogen	Rank
Legume Cash Crop	3
Cover Crop	1
Crop Rotations	2
On-Farm Compost	4
On-Farm Manure	5
Off-Farm Compost	3
Off-Farm Manure	2
Fertilizer Mixes	6

Source: MSU/MOFFA 2006 Survey

¹⁹ See http://www.ifoam.org/about_ifoam/principles/index.html. A trademark of the Rodale Institute is: "healthy soils = healthy plants = healthy people."® See http://www.rodaleinstitute.org/about/who_body.html

²⁰ This is a collaborative network with MSU, Purdue University and the University of Illinois to provide seasonal advice to organic field crop and vegetable growers. It hosts an on-line newsletter at: www.new-ag.msu.edu.

²¹ This question was prepared in consultation with Dr. Sieglinde Snapp, MSU Crop and Soil Sciences Department and Kellogg Biological Station, who is testing indicators of nitrogen availability and soil quality in organic systems as part of a USDA-funded project, "Partnering to Cultivate Organic Agriculture in Michigan and the Midwest," in which Bingen is a co-project investigator. This question also modeled a similar question from the 3rd OFRF Survey on the fertilization and fertility management strategies and materials used by organic farmers.

Off-farm manure ranks as very important for 19 of 34 bean and grain grower respondents (55%), and for 4 of 9 vegetable growers (44%). Off-farm compost is very important in the soil fertility management strategies for 5 of 12 vegetable growers (42%), and 9 of 23 bean and grain growers (39%). A significantly lower percent of farmers use on-farm compost (19%) or on-farm manure (16%). Only 13% rank the use of commercial fertilizer mixes as important in their soil fertility management practice.

Production Problems

In order to generate information that could help in setting organic research priorities, farmers were asked to rate their day-to-day production problems by type of production (vegetables, fruit, grains/field crops, and livestock/pasture; Table IV-2).²² (See Appendix 3 for the detailed responses to this question.)

Table IV-2. Organic Production Problems, Rank by Type of Farm

Problem	Vegetable	Fruit	Bean/Grain	Livestock
Weed Control	1	2	1	
Cost of Organic Seed	2	1		
Cost of Inputs	3		2	
Insect Damage		2		
Diseases		2		
Finding Organic Seeds		3		
Soil Fertility			3	
Processing Options				1
Access to Organic Stock				2
Access to Labor				3

Source: MSU/MOFFA 2006 Survey

Vegetable farmers (n = 35) rate weed control, the cost of organic seed and the cost of inputs as their top three problems. Fruit growers (n = 15) report the cost of organic seed, weed control and insect damage and diseases as their top production problems. Grain/field crop farmers (n = 54) identify weed control, the cost of inputs and soil fertility as their most serious problems. Finally, livestock producers (n=20) report that access to organic stock, processing options and access to labor are their most serious problems.

Research Needs

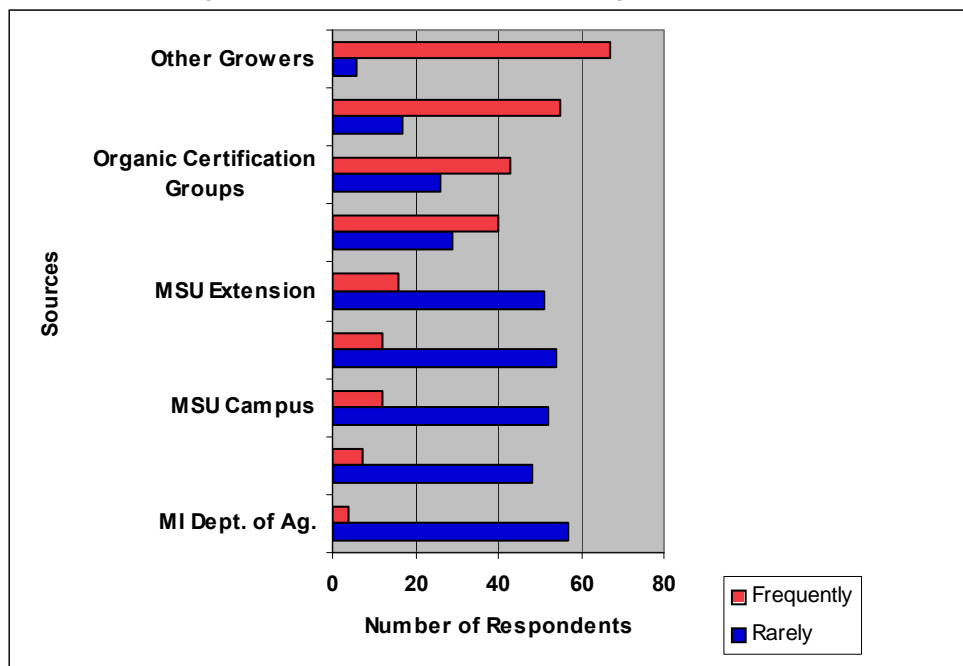
In response to an open-ended question about specific problems or issues that should be addressed through research, 48 respondents identified a total of 37 topics. Of the 24 bean and grain farmers who responded, weed control was the most frequently noted problem (6 times), followed by soybean aphid control (3 times) and then insect and disease problems as well as the use of animal waste for fertility. Of the 20 fruit and vegetable farmers responding, over one-half of them mentioned insect and disease problems as their principal concern. In contrast to the bean and grain growers, weed control and the use of animal waste was mentioned only two to three times. Marketing issues as well as drift problems from genetically-engineered crops were concerns raised by two to three growers in each group.

²² Farmers could identify multiple problems. The "menu" of production problems for each crop category (and adapted for livestock/pasture) included: weed control, nitrogen management, soil fertility, insect damage, diseases, irrigation, GMO contamination, pesticide drift, cost of inputs, access to inputs, labor costs, access to labor, processing options, finding organic seeds or feed, cost of organic seeds or feed, animal parasites, animal diseases, other.

Information Resources

On a day-to-day basis, farmers turn to other farmers for their production-related questions.²³ Ninety-one percent (n=73) rely frequently on other growers to answer production questions. Farmers also consult books (76%), and turn to their certification agencies (61%) for advice. Farmers rely least upon MSU or MDA. Only 22% of respondents turn to MSU Extension, 16% consult MSU campus faculty and the research stations, and 5% contact MDA.²⁴

Figure IV-2. Sources Consulted on Organic Production



Source: MSU/MOFFA 2006 Survey

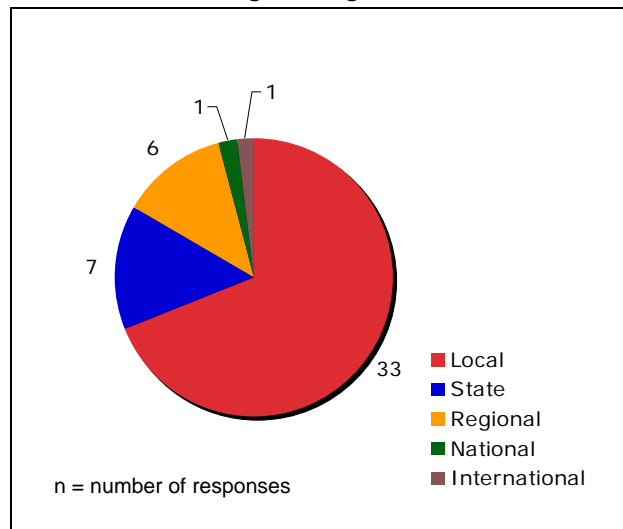
²³ Farmers were asked to rank their use of county MSU Extension, MSU campus faculty, MSU research stations, MDA, other growers, organic certification groups, OTA, books and websites on a scale from 1 (use frequently) to 4 (do not use at all).

²⁴ The “avoidance” of university researchers raises an interesting question for discussion, especially when we consider that 68% of Michigan organic farmers have some college education, and 18% have completed some level of graduate degree studies. Similarly, the 3rd OFRF Survey found that farmers were most likely to consult other farmers first (83% use other farmers as a resource.) As the OFRF Survey found, Michigan farmers consult other growers (82% of respondents find them moderately or very useful), and don’t consult the state agriculture department (94% find them sometimes or never useful), or the university (78% find them sometimes or never useful).

V. Organic Marketing

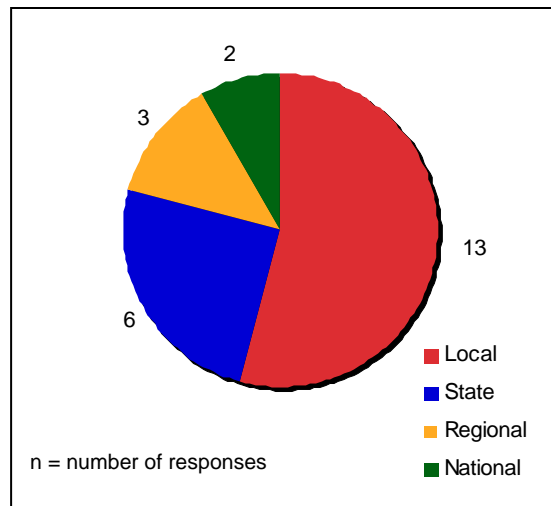
This section presents the 2006 survey results related to the marketing practices of Michigan's certified organic farmers. Michigan's organic farmers sell primarily in local markets (defined as 150 miles or less from the farm); 49 of 82 respondents market 100% of certain crops or livestock products locally. However, as Figures V-1 to V-4 illustrate, the market locations vary by type of farm.

Figure V-1. Marketing Locations: Michigan Certified Organic Vegetable Farms



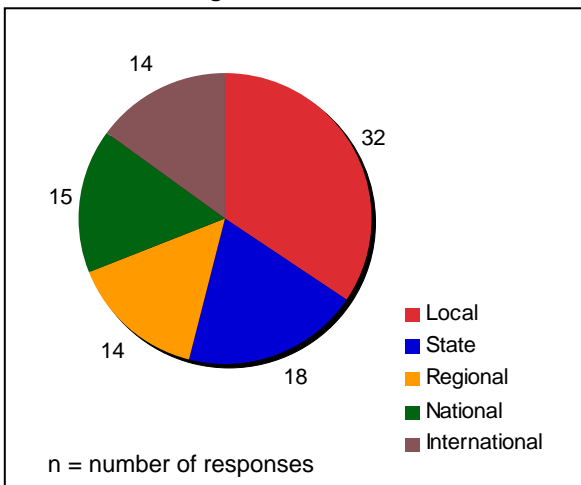
Source: MSU/MOFFA 2006 Survey

Figure V-2. Marketing Locations: Michigan Certified Organic Fruit Farms



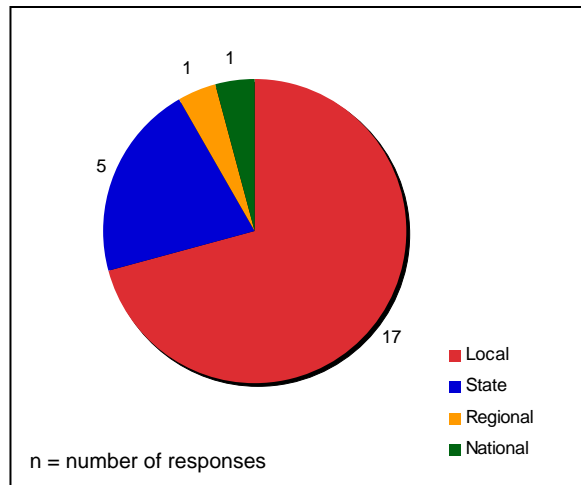
Source: MSU/MOFFA 2006 Survey

Figure V-3. Marketing Locations: Michigan Certified Organic Bean & Grain Farms



Source: MSU/MOFFA 2006 Survey

Figure V-4. Marketing Locations: Michigan Certified Organic Livestock Producers



Source: MSU/MOFFA 2006 Survey

Bean and grain farmers rely more on national, regional and international markets than either fruit or vegetable farmers. Unlike national trends, Michigan's organic livestock producers sell almost all of their products locally.²⁵

²⁵ This may be related to the limited access to certified processing facilities. The 4th OFRF Survey reported that nationally more than 47% of organic livestock products were sold more than 500 miles from the farm.

Consistent with their reliance upon diverse marketing locations, Michigan farmers employ diverse types of marketing. The emphasis on direct marketing to consumers or to retail is consistent with the local market focus noted above. Table V-1 shows that marketing ranges from community supported agriculture (CSA) sales to arrangements with handlers or processors that may serve more national or international markets. The types of marketing, similar to the market locations, are related to the crops or products being sold.

Table V-1. Types of Marketing by Farm Type (Primary Crop/Product)²⁶

	Direct to Consumers²⁷	Direct to Retail²⁸	Wholesale²⁹	Contracts
Vegetable (n = 33)	<ul style="list-style-type: none"> • 7 farms sell through CSA • 12 farms sell on-farm • 16 farms sell at farmers' markets 	<ul style="list-style-type: none"> • 11 farms sell to health food stores • 9 farms sell to restaurants • 6 farms sell to local grocery stores 	<ul style="list-style-type: none"> • 5 farms sell to distributors • 4 farms sell to grocery stores • 4 sell to processors 	<ul style="list-style-type: none"> • 4 farms sell by contract
Fruits (n = 15)	<ul style="list-style-type: none"> • 6 farms sell through CSA • 9 farms sell on-farm • 6 farms sell at farmers' markets 	<ul style="list-style-type: none"> • 6 farms sell to health food stores • 5 farms sell at restaurants 	<ul style="list-style-type: none"> • 4 farms sell to distributors • 3 farms sell to grocery stores • 3 farms sell to processors 	<ul style="list-style-type: none"> • 1 farm sells by contract
Grain/Field Crops (n = 50)	<ul style="list-style-type: none"> • 9 farms sell on-farm • 6 farms sell through CSA • 5 farms sell at farmers' markets 	<ul style="list-style-type: none"> • 6 farms sell to health food stores • 4 farms sell to co-ops • 1 farm sells to restaurants 	<ul style="list-style-type: none"> • 4 farms sell to producer coops • 14 farms sell to distributors • 16 farms sell to processors 	<ul style="list-style-type: none"> • 21 farms sell by contract • 10 farms sell 100% by contract

Source: MSU/MOFFA 2006 Survey

When asked whether their markets would change for 2006, 67% (62 of 92 respondents) expected no real change and 28% planned to add new markets.

Michigan farmers receive a premium for their organic products. Eighty-seven percent of the 77 farmers who responded report a premium of 76% or more over conventional prices. There is some concern about the trend for organic prices. At least 30% of farmers (n=44) see prices trending downward, while 70% feel they will remain stable or increase.

²⁶ Farmers could report more than one type of market. Thus 'n' = the number of responses.

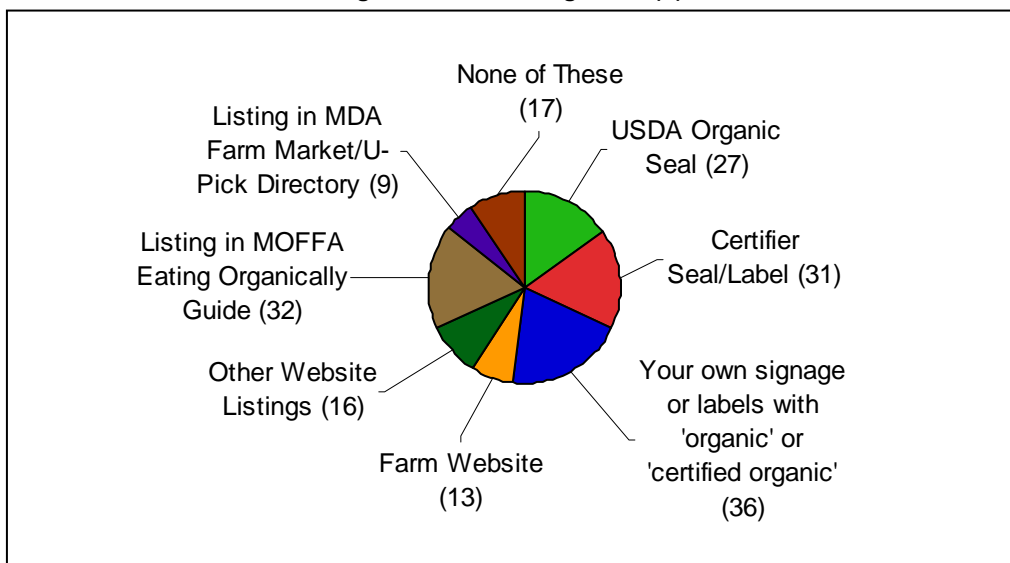
²⁷ Community supported agriculture, on-farm or farm stand, farmers' market, buying clubs.

²⁸ Fruit/vegetable markets, health food stores, restaurants, cooperatives, local grocery stores.

²⁹ Grocery store chains, handlers/distributors, producer cooperatives, processors.

Michigan farmers rely on a variety of common marketing tools (Figure V-5).³⁰ Despite the proliferation of internet use and the local marketing focus of many farmers, only 45% use a farm website or other websites as marketing tools (29 of 64 respondents).

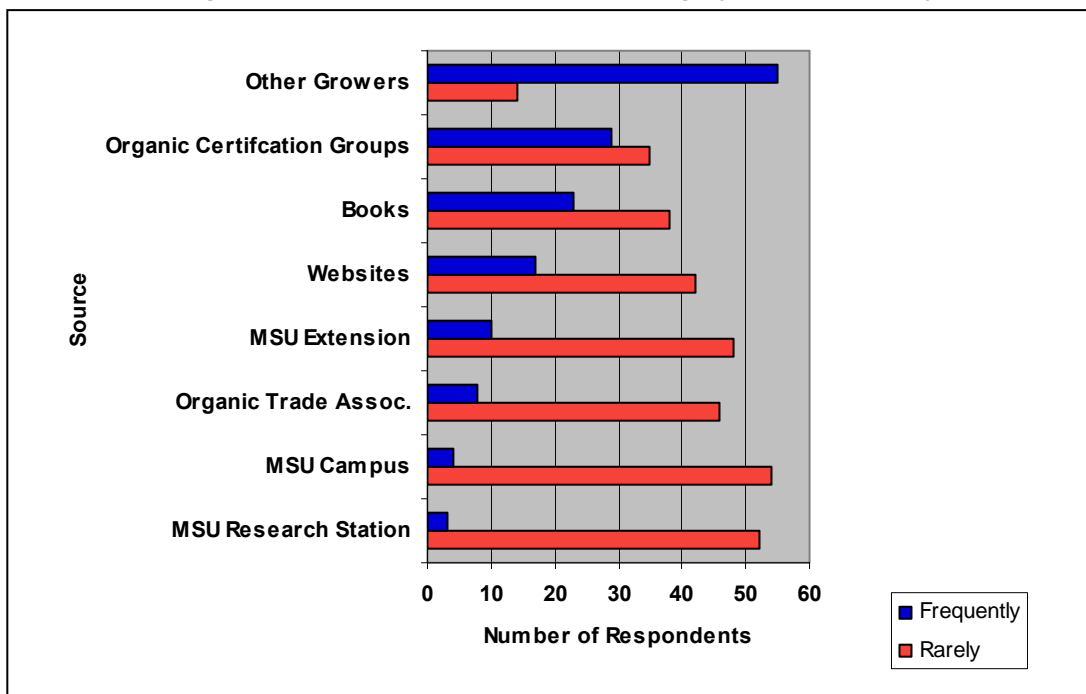
Figure V-5. Marketing Tools (n)



Source: MSU/MOFFA 2006 Survey

Similar to the results reported on the sources consulted for production questions, almost 80% of the farmers responding consult frequently with other farmers on marketing questions. Only 6-8% of respondents turn frequently to MSU or MDA (Figure V-6).

Figure V-6. Sources Consulted on Marketing, Type and Frequency



Source: MSU/MOFFA 2006 Survey

³⁰ Farmers could select more than one type of marketing tool. (n) = the number of responses.

VI. Organic Processors

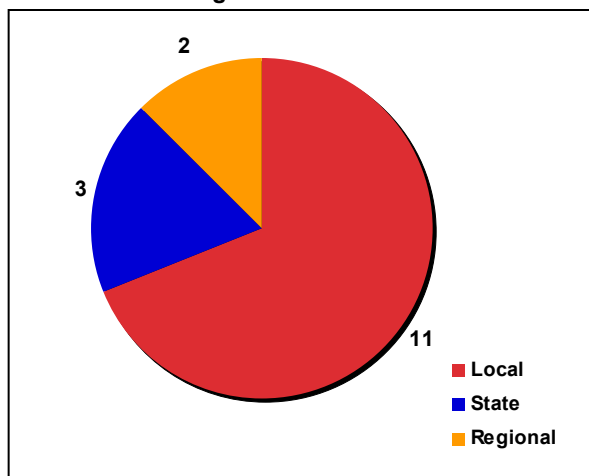
Organic processing and handling is a key part of marketing for many organic farmers. According to the USDA/ERS, there were over 3000 certified organic processing/handling facilities nationwide in 2004, with 41% of those located on the Pacific Coast and almost 800 in California alone. As of 2005, Michigan had 56 certified organic processors or handlers, including farms that clean, bag or package grains or beans, as well as businesses that manufacture processed products like baked goods, juice, soy milk, flour and dried fruit.

In the 2006 survey, 39 respondents report processing or handling products in 2005.³¹ Twenty-six (26) respondents use some Michigan farm products in processing, with 19 of 26 (73%) processing at least 50% Michigan farm products.

While Michigan fruit processors sell evenly across local, state, regional and national markets, Michigan vegetable processors sell primarily in local and state markets. Of 12 vegetable processor respondents, 11 sell products in local markets and 3 sold statewide. Bean and grain processors sell about equally in local, state and national markets (Figures VI-1 & 2; n=number of responses). Livestock processors sell in local, state, regional and national markets about equally. Of the 8 respondents, all sell locally, 3 sell statewide, 2 sell regionally and 2 report selling nationally.

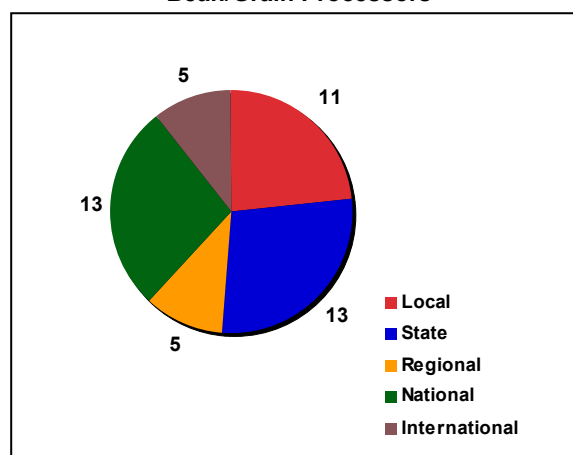
Overall, processors sell direct to consumers and in wholesale markets about equally.³² Direct to retail market sales are less significant (see Table VI-1).³³

**Figure VI-1. Market Locations:
Vegetable Processors**



Source: MSU/MOFFA 2006 Survey

**Figure VI-2. Market Locations:
Bean/Grain Processors**



Source: MSU/MOFFA 2006 Survey

Table VI-1. Types of Marketing: Michigan Processors (n = number of responses)

Direct to Consumer		Direct to Retail		Wholesale		Contract
CSA	8	Restaurants	4	Handler/Distributor	9	10
On Farm/Farmstand	7	Health Food Store	4	Processor	8	
Farmers Mkt	6	Fruit/Veg Mkt	3	Producer Coop	3	
Buying Club	2	Cooperatives	3	Grocery Chain	2	
		Local Grocery	3			

Source: MSU/MOFFA 2006 Survey

³¹ This includes full-time processors as well as farmers who also process products.

³² Direct to consumer = sales through CSA, on-farm, farmers' market or buying club; wholesale markets = grocery store chains, handlers/distributors, producer coops, processors; contract = various buyers based on contracts.

³³ Sales through fruit/vegetable markets, health food stores, restaurants, cooperatives, local grocery stores.

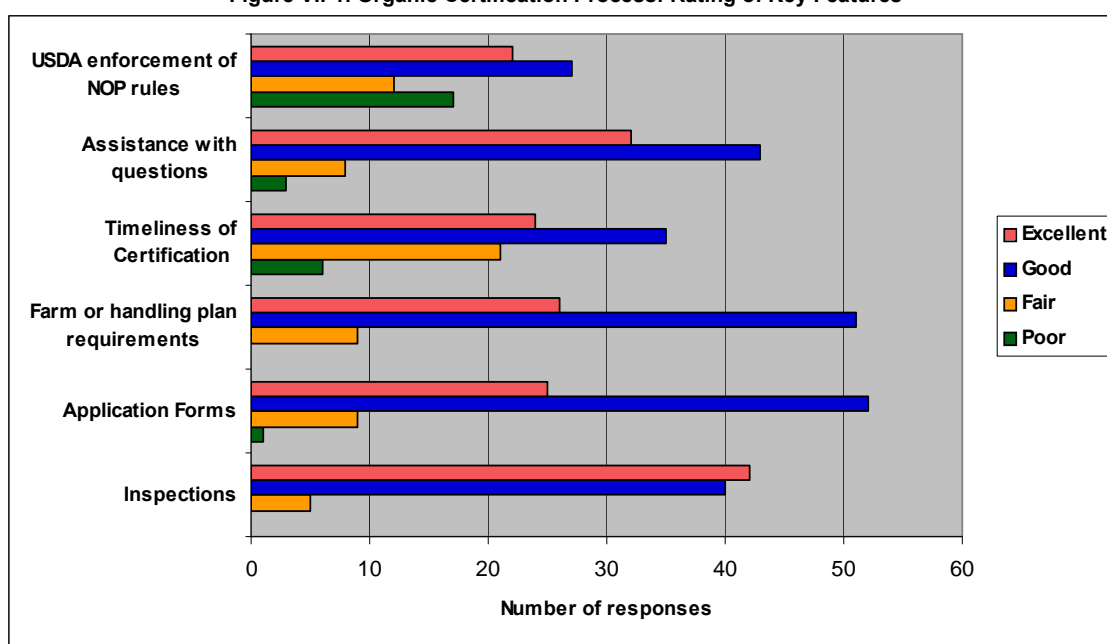
VII. Government Programs and Policy Issues

This section reports responses from the 2006 survey to questions about certification issues, group membership, participation in federal and/or state agricultural programs, and concerns about federal and policies.

Certification Issues

In order to identify policies that might support and improve the organic certification process for Michigan farmers, survey participants were asked to rate (excellent, good, fair, or poor) their experience with different features of the organic certification process (inspection, application forms, farm or handling plan requirements, timeliness of certification, assistance with questions, and USDA enforcement of NOP rules).

Figure VII-1. Organic Certification Process: Rating of Key Features



Source: MSU/MOFFA 2006 Survey

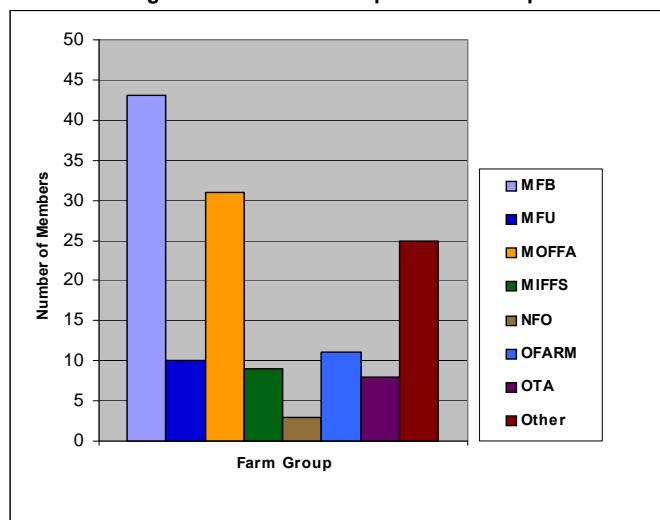
Ninety-four percent (n = 87) of farmers and processors report that the inspection process is excellent or good.³⁴ Eighty-eight percent rate their experience with the certification application forms as good or excellent. Ninety percent of respondents assess their experience with farm/handling plan requirements as good or excellent, and 68% similarly rate the timeliness of the certification (inspection) process. Eighty-seven percent rate assistance received from their certification agency as good or excellent. Sixty-two percent rate the enforcement of the NOP by the USDA as good or excellent; despite the controversies surrounding the NOP, only 22% express serious concerns about USDA enforcement.

³⁴ Percentages are based on number of respondents to each individual sub-question. There were 87 responses to questions on the inspection process and application forms; 86 responses to timeliness, plan requirements, and assistance with questions, and 78 responses to USDA enforcement.

Memberships

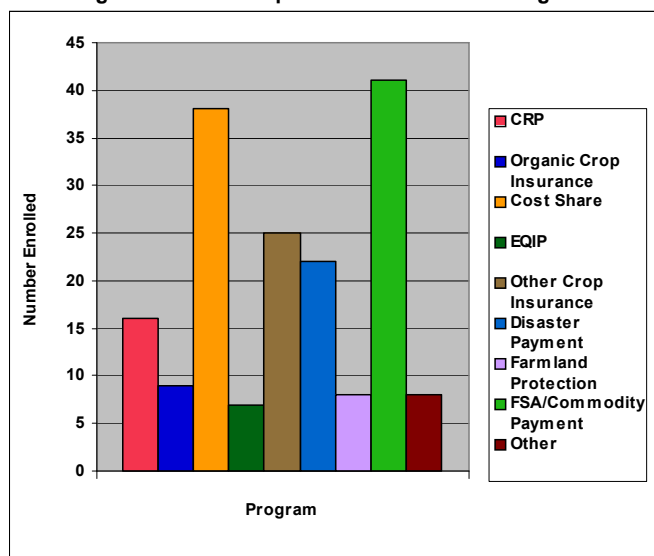
Seventy-three of the respondents (76%) belong to some type of farm group. The top three membership groups are the Michigan Farm Bureau (43 members), MOFFA (31 members), and OFARM (11 members) (Figure VII-2).³⁵

Figure VII-2. Membership in Farm Groups



Source: MSU/MOFFA 2006 Survey

Figure VII-3. Participation in Government Programs



Source: MSU/MOFFA 2006 Survey

Participation in Government Programs

Michigan certified organic farmers participate in a variety of farm or working land programs. As shown in Figure VII-3, 43% of total farmers (n=96) are enrolled in Farm Service Agency (FSA) commodity payment programs.

Forty percent of respondents took advantage of the MDA certification cost-share program funded by the USDA in 2005.³⁶ Written comments from farmers about the need for financial support confirm the importance of the cost-share program in Michigan.

Thirty five percent of respondents (34 of 96) are enrolled in various types of crop insurance programs, and 19% of respondents (18 of 96) are in conservation (CRP) or wetland reserve programs. These participation rates are higher than those reported for all farms nationally.³⁷

Nevertheless, written comments from farmers reflect the need for more information about the availability of different financial aid, grant and credit programs, as well as low-interest loans.

³⁵ MFU = Michigan Farmers Union; MIFFS = Michigan Food & Farming Systems; NFO = National Farmers Organization; OTA = Organic Trade Association. Other includes organizations identified by respondents: Organic Farmers of Michigan, Organic Growers of Michigan, Healthy Traditions Network, and Michigan Thumb Organics.

³⁶ This is significantly higher than the 1% cost-share participation rate reported in the 4th OFRF Survey. Michigan's cost-share program reimburses farmers for up to \$500 of certification costs each year. The application process is simple, but only 95 of Michigan's 261 certified farmers and processors (36%) took advantage of this program in fiscal year 2005.

³⁷ According to the 2002 Ag Census, 15% of farms nationwide participate in federal or other crop insurance, and 12% of farmers are enrolled in conservation (CRP) or wetland reserve programs.

Federal and State Policy Issues

Michigan's certified organic farmers are looking for more marketing promotion and policy support. Fifty-two respondents (61%) agree with the need for a group to promote local marketing and promotion of Michigan organic products. Seventy percent of respondents express the need for a state and/or federal policy advocacy group, and only 8% disagree with the need for such a group. Support for national and/or international promotion and marketing is less strong, with 41% agreeing with the need for a group to promote Michigan organic products beyond the state.

Respondents also identify a range of input-related issues they feel would be most helpful to them in the next five years. These include: more accessible information about, and local availability of, products approved for organic production; better seed supply; and the availability of small-scale farming equipment.

Consistent with the interest expressed in the need for a group to enhance local marketing, respondents also expressed interest in help with: promoting awareness of local markets; consumer education specifically about what "organic" is, how to read organic labels, and the importance of supporting local farmers; and the need for more networking and cooperative marketing. With respect to this latter point, farmers also express an interest in having more ways to learn about trends and what others are doing around the country.



VIII. Recommendations and Policy Implications

This 2006 survey was prepared for several reasons. First, a more complete picture of organic farming and marketing in Michigan can help those interested in exploring organic practices as a transition or a diversification strategy to gain a more informed perspective on organic production and marketing opportunities. Second, this report should help to identify and define research and extension priorities that support both the transition to organic and the diversification of organic production in ways that benefit Michigan farmers and its citizens interested in local, organic food. Third, the information presented in this might contribute to efforts to improve the implementation of the Michigan Organic Products Act.

Biennial Census of Organic Agriculture

The 2006 survey confirms the continuing growth of organic agriculture in Michigan, the state's diversity of organic farm types and sizes, as well as the continuing lead role of Michigan fruits and vegetables in the Upper Midwest. This report also illustrates important inconsistencies in the data available from the Agricultural Census, the USDA/ERS and certifying agencies on Michigan organic agriculture. These inconsistencies make it difficult to initiate advocacy and policy-making on behalf of organic farming.

There is a need for a Michigan-based biennial census of organic agriculture to obtain data directly from farmers in Michigan as a means to assess the state's organic farming progress. More specifically, since organic fruits and vegetables represent the greatest share of fresh organic food sales in the US, more accurate data about organic fruit and vegetable sectors can identify key production and marketing issues and opportunities for growth. In addition, a census of farmers would allow for a more accurate understanding of the growth potential for organic production among organic farmers, and among farmers in those sectors of the conventional agriculture community that are either struggling, or dominant and growing such as dairy production and the nursery industries.

In addition, efforts should be made to collect census data not only for certified organic farms and processors, but also for those operations that are exempt from certification under the NOP (with less than \$5000 of gross sales.) Because there is no certifier record of these operations, USDA/ERS does not collect these data. We believe it would be useful to determine a method to identify these businesses and to collect data about them to assess the size and impact of these exempt operations in Michigan's organic farm community.³⁸

Certification

Anecdotal reports indicate that many Michigan organic farmers did not renew their certification when the NOP was implemented in 2002. Similarly, it is not known how many Michigan farmers decided not to continue to be certified when OGM withdrew from certification for 2006. MDA-administered cost-share funds to help cover certification costs also go unspent. Consequently it will be important to assess whether certification costs and bookkeeping requirements, as well as the lack of a local certifying entity, creates a barrier to certification for Michigan farmers who follow organic practices, particularly for smaller farms who do not necessarily need certification for their markets.

³⁸ The current Michigan Organic Products Act requires all businesses marketing foods as 'organic' to register. This requirement may provide one mechanism to identify the exempt operations in Michigan.

Soil Fertility Management

The reliance on cover crops and crop rotations as key elements in soil fertility management suggests that more applied and on-farm research on these elements could benefit organic farming practices around the state. In addition, the role of off-farm manure and compost use in the soil fertility management strategies for all types of organic farms – vegetable, fruit, bean/grains – needs to be better understood, especially in terms of sourcing. For example, is the cost of these inputs reasonable to justify its continued use on small or large farms? How easily can farmers access these materials, and how do they assess and assure the quality of off-farm manure and compost? What measures are in place to avoid potential water quality and food safety problems?

Marketing and Promotion

Organic farmers, especially those growing fruits and vegetables, could benefit from an organization that helps to educate, market, and promote “Michigan Organic.” (Many of the state’s bean and grain growers market collectively.) Such a group could address at least three issues that will be important to the continuing success and growth of organic agriculture in Michigan. First, marketing and production research tends to be based on the assumption that farmers engage in only one or two types of marketing. What are the production and marketing challenges of the types of diversified marketing strategies presented in Section V. And what are the best ways to help farmers improve these strategies? Second, as the major retail grocery chains increasingly rely on imported organic produce, what would it take for Michigan organic farmers to organize, maintain their organic price premium, and become an important source of organic produce in Michigan retail grocery outlets? Third, what would it take for this growing organic sales market to convince the state’s mid- and large-scale fruit and vegetable farmers, including those selling for processing, to see organic as part of their overall production and marketing strategy?

The fact that organic farmers are most likely to rely on other organic farmers highlights both strengths and weaknesses in the infrastructure that supports Michigan’s organic farm community. Informal farmer networks and contacts can work well in areas where it is easy to find other organic farmers such as Michigan’s Thumb, where grain and bean farmers are concentrated. In other parts of the state, or for growers interested in different crops not grown by neighbors, it may be more difficult to find help. Annual conferences or local workshops and meetings focused on organic production practices can help to make these connections.

In addition, tax-supported agencies and institutions that provide traditional farm training and education should assess how they can better serve the needs of organic farmers.

The low use of websites for marketing described in Section V suggests that much more is needed to expand the availability of high-speed, web-based information infrastructure throughout the state. Given the increasing general reliance on web-based marketing and purchasing, an expansion of this infrastructure should be an important component of the state’s economic development strategy for organic and other agriculture.

Research

MSUE and MSU need to find multiple ways to become more accessible, relevant and credible resources for organic farmers.

Government Programs

Government programs like EQIP and others need to be marketed more to organic farmers to increase their participation levels. Organic farmers often already use or understand the practices that government conservation programs often promote, and it is appropriate to direct funding from these programs to reward and encourage more farmers to adopt organic practices.

Increase Production of Michigan Organic Fruits and Vegetables

Organic fruits and vegetables are one of the largest segments of the growing organic industry, evidence of the clear public demand for these products. Farmers' markets and retailers of all sizes are increasing the amount of organic produce they sell, but much of it comes from national or international organic suppliers. While Michigan is a comparative leader in the Upper Midwest states in organic fruit and vegetable production, more could be done to increase Michigan's production of, and acreage in certified organic fruits and vegetables. This could include several actions. Organic transition assistance could be offered for current fruit and vegetable farmers and existing certified organic bean/grain growers could be encouraged to convert some production to fruit or vegetable crops.

In addition, more could be done to identify the extent of small farm fruit/vegetable production that is no longer certified organic, but that once was certified, or that could easily be certified because of the current production practices. These small local producers often sell on-farm or at farmers' markets with various eco-labels such as 'naturally grown', 'grown without chemicals', 'pesticide-free', etc. Some may qualify to sell as organic and are exempt from certification under the NOP.



IX. Appendices

Appendix 1. Surveys of Organic Agriculture in Michigan

The 2006 Michigan Survey of Certified Organic Farmers and Processors/Handlers

In June 1999, the Michigan Organic Advisory Committee and the Michigan Department of Agriculture published *Advancing Organic Agriculture in Michigan*. This report contained a series of policy recommendations to support and protect the organic farming industry. It did not include data on organic agriculture in Michigan.

In early 2006, the nine NOP-accredited, organic certifying agencies registered with MDA were requested to send the authors their database of contact information for growers and processors certified during 2005 in Michigan.³⁹ These databases were reconciled with the database of certified organic growers compiled by the MDA and several other incomplete lists of organic growers that had been compiled at different times by the authors. A total of 261 farms and processing businesses were included on the final certified organic database for 2005.

A confidential survey questionnaire was created, modeled after those used by OFRF. Farmers were asked to complete five sets of questions.⁴⁰ The first, introductory set of questions dealt with baseline questions: whether they produced and marketed in 2005; ownership of their farm; level of education; and their description of production and marketing conditions for 2005. The second set dealt with the characteristics of their farm, including: farm size and acreage farmed; number of employees; number of years farming and farming organically; number of years certified organic; full- or part-time status; percent of net family income from organic farming; enrollment in government programs; acreage by crop; and percent of gross sales by product category (vegetables, tree fruit, small fruit, hay, livestock, beans, grains, other). There were also a few questions about any conventional production on the farms.

The third set of questions dealt with production issues, the fourth set dealt with marketing and the fifth set asked several questions related to regulatory and policy issues, including certification.

All those who were processors/handlers were asked several questions about their source of organic products and marketing of these products.

The questionnaire was sent in early 2006 with a stamped, self-addressed envelope to 261 addresses. Up to three reminder telephone calls were made. Ninety-seven farmers and 19 processors responded, for a response rate of 44%. Of the survey respondents, about 40% were certified with OGM, 27% with OCIA, and 20% with Global Organic Alliance. All others were certified with QAI, Oregon Tilth, OCIA, ICO, ICS or MOSA.

The survey responses were compiled with Microsoft Excel and SPSS, the Statistical Package for the Social Sciences.

Other Surveys of Organic Agriculture in Michigan

The 2006 survey is the first statewide and comprehensive survey of organic agriculture in Michigan. Selected data on organic agriculture in Michigan are also available through the

³⁹ Certifiers included: GOA, Global Organic Alliance, Inc.; ICS, International Certification Services, Inc.; MOSA, Midwest Organic Services Association; OCIA, Organic Crop Improvement Association; OGM, Organic Growers of Michigan; OTCO, Oregon Tilth Certified Organic; OEFFA, Ohio Ecological Food & Farm Association; OCIA, Organic Crop Improvement Association; and QAI, Quality Assurance International.

⁴⁰ A copy of the survey instrument is available upon request.

USDA/ERS, the 2002 Agricultural Census and the Michigan Rotational Surveys administered by the Michigan Field Office of the USDA National Agricultural Statistics Service. The Michigan datasets from the 3rd and 4th OFRF Surveys conducted by OFRF were purchased. Some data on organic agriculture were also collected in the 2000 Michigan Organic Growers Exploratory Survey, and in the 2003 MOFFA Roundtable Discussions.⁴¹

USDA/ERS

The USDA began to estimate certified organic farmland acreage and livestock numbers in the early 1990s. More detailed estimates by commodity and by state were collected from state and private certifiers in 1997.⁴² Data are now available from 2000 through 2003, and 2005. The Economic Research Service obtains data on organic agriculture directly from the certifying agencies. These data, available at <http://www.ers.usda.gov/Data/Organic/>, are the most consistent set of state-level data available on the number of certified organic operations, and the acres of certified organic pasture and cropland, grains, beans, oilseeds, hay and silage, vegetables, and numbers of livestock and poultry.

As noted in the Preface to this report, OGM did not report data for 2005, thereby undercounting vegetable farms and the acreage in vegetables in the 2005 USDA/ERS data. On the other hand, the number of acres in fruit was inflated largely due to a change in criteria used for identifying acres in fruit. At the same time, and as the USDA/ERS regularly notes, some producers (most often the bean & grain growers in Michigan – eds.) are certified with more than one certifying agency. The USDA/ERS tries to avoid double-counting from double-certified acreage whenever possible.

2002 Census of Agriculture

The 2002 Census of Agriculture included two questions on organic agriculture: the total number of acres harvested for all certified crops and the value of all the certified crops sold. This Census reports 283 certified farms with 25,386 acres of land used to raise certified organically produced crops for a total value of certified organically produced commodities at \$7,019,000.

Clearly, these data are quite different from those reported by the USDA/ERS or those collected in the 2006 survey.

USDA/National Agricultural Statistics Service--Michigan Field Office

The Michigan Field Office of the National Agricultural Statistics Service conducts the Michigan Rotational Survey which is a census of all known operations, including those with organic fruit and vegetables. This biennial rotating survey started with fruit in 1991-1992, vegetables in 1992-1993, and nursery & Christmas trees in 1993-1994. Turfgrass and wine grape surveys were also completed in 2002. The 2005-2006 Vegetable Rotational survey included a series of questions about organic practices. Organic questions were also included in the 2006-2007 Fruit Rotational Survey.

OFRF

OFRF is a non-profit foundation based in Santa Cruz, California that sponsors research on organic farming practices, disseminates results to growers and others, and educates the public and decision-makers about organic farming issues. Since 1993, the foundation has conducted four nationwide surveys of organic farmers based on the lists provided by US certifying

⁴¹ In 2000, the Michigan Organic Growers Exploratory Survey was designed to learn more about the crop and pest management practices of organic farmers. Thirty farmers certified with OGM were interviewed. The report of the roundtables, *Michigan Organic and Community Farmer Roundtables: 2003 Summary Report & Recommendations*, is available at www.msu.edu/~bingen.

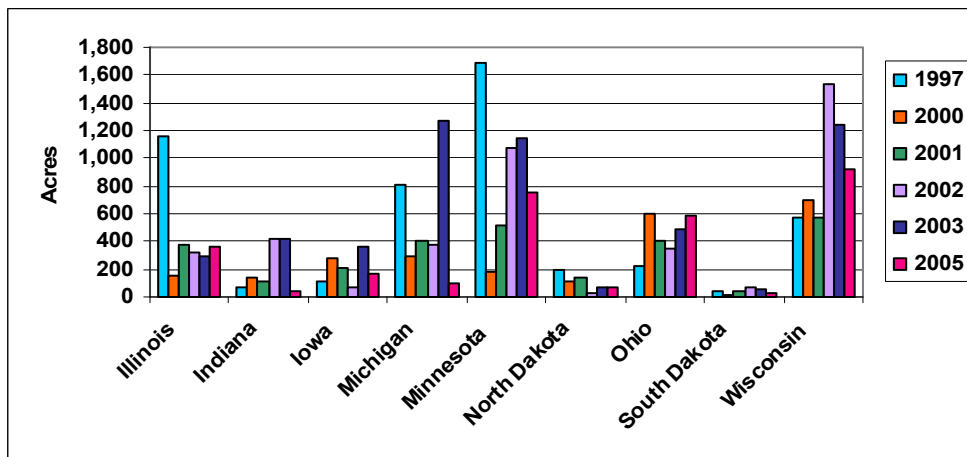
⁴² See the discussion, "Certified Organic Farming: Methods and Data" in Catherine Greene, Amy Kremen. 2001. U.S. Organic Farming in 2000-2001: Adoption of Certified Systems. Agriculture Information Bulletin No.780. Washington, DC: USDA/Economic Research Service. Page 10.

agencies. Each survey provides data on farm management and demographics, production information, and farmers' research concerns and priorities. The fourth survey, published in July 2004, added several questions related to significant issues affecting organic markets and marketing, including farmers' perceptions of GMO contamination.

Forty-four Michigan farmers responded to the 3rd OFRF Survey. OGM did not participate in the 4th OFRF Survey and as a result the Michigan database includes responses from only 19 farmers, mostly the bean & grain farmers certified with OCIA.

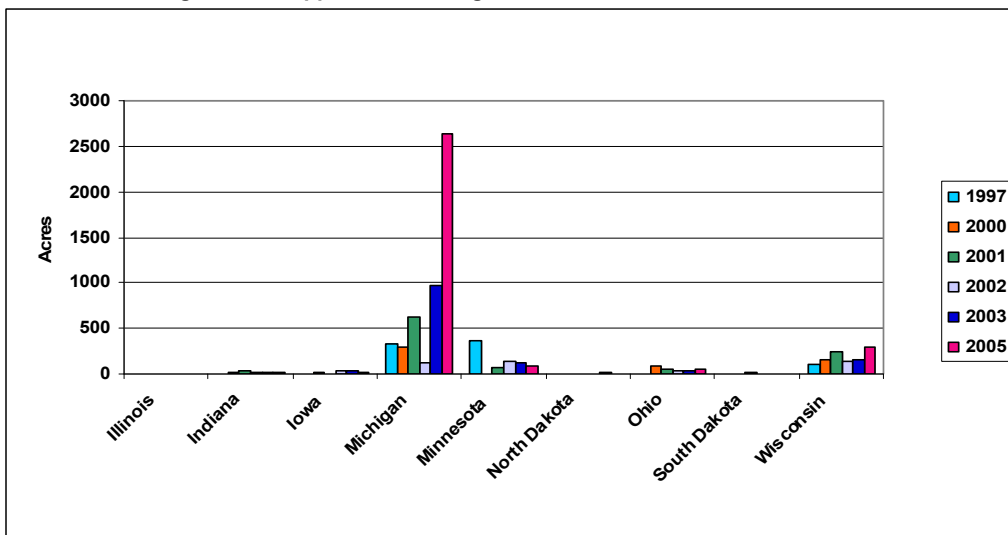
Appendix 2. Upper Midwest Organic Production 1997, 2000-2005

Figure A2-1. Upper Midwest Organic Vegetable Production 1997, 2000-2005



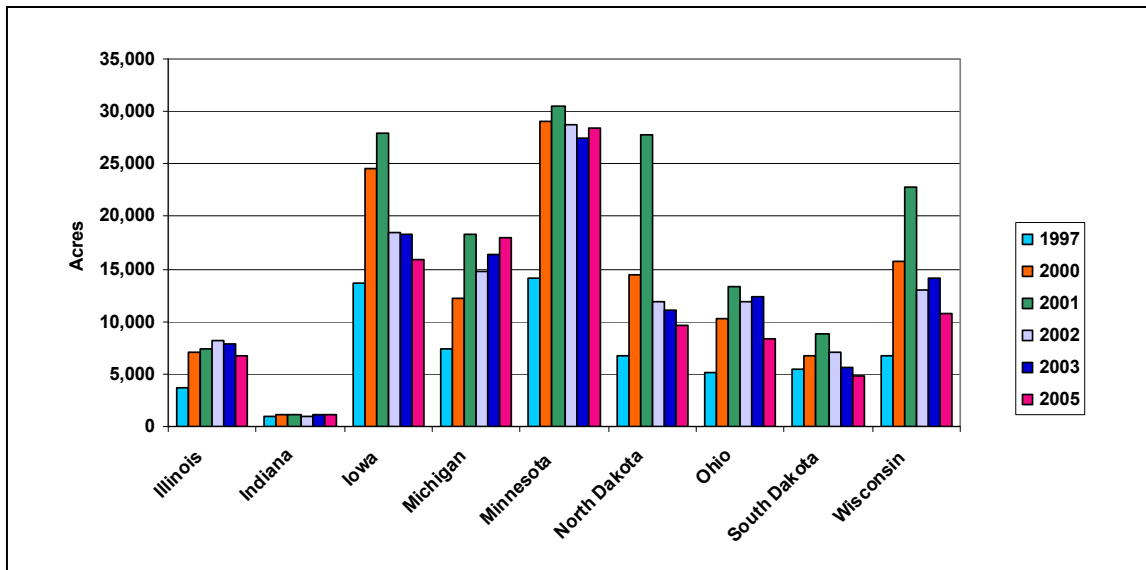
Source: USDA/ERS

Figure A2-2. Upper Midwest Organic Fruit Production 1997, 2000-2005



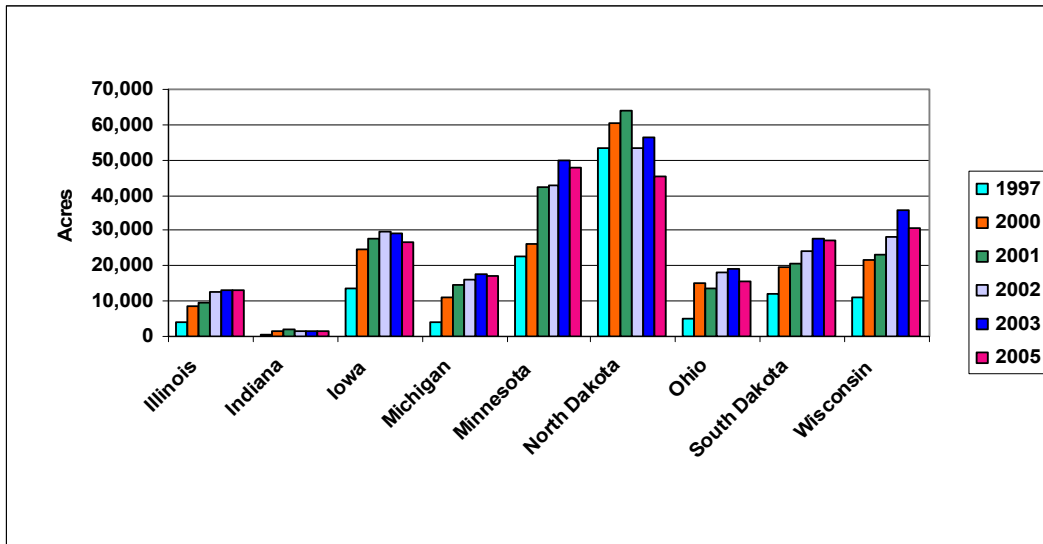
Source: USDA/ERS

Figure A2-3. Upper Midwest Organic Bean Production 1997, 2000-2005



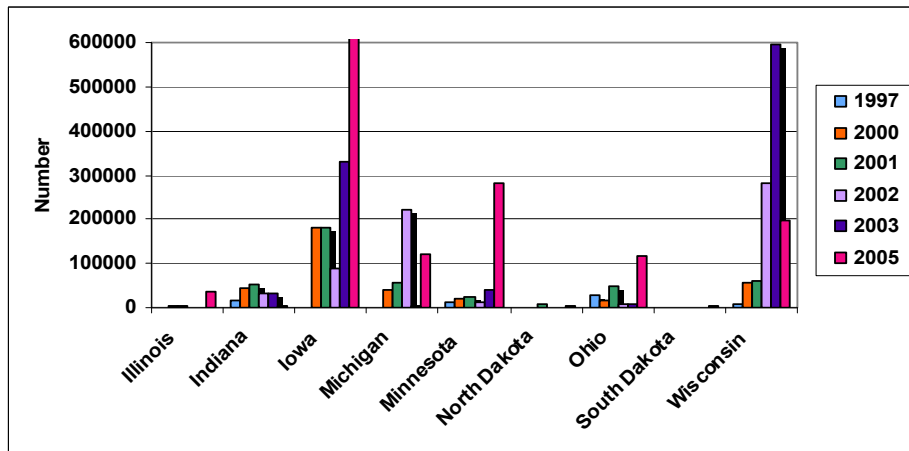
Source: USDA/ERS

Figure A2-4. Upper Midwest Organic Grain Production 1997, 2000-2005



Source: USDA/ERS

Figure A2-5. Upper Midwest Organic Livestock and Poultry Production 1997, 2000-2005



Source: USDA/ERS

Appendix 3. Michigan Organic Production Issues

Day-to-day production problems ranked on a scale of 1 = serious problem to 5 = not a problem by type of production (vegetables, fruit, grains/field crops, livestock/pasture).

Table A3-1. Ranking of Production Problems, Vegetable Farms

Problem	Average Ranking (35 responses)
Weed Control	2.5
Cost of Organic Seed	2.7
Cost of Inputs	3
Insect Damage	3.1
Labor Costs	3.1
Irrigation	3.2
Soil Fertility	3.3
Diseases	3.3
Finding Organic Seeds	3.3
Access to inputs	3.4
Nitrogen Management	3.6
Access to Labor	3.8
Processing Options	3.8
GMO Contamination	4.1
Pesticide Drift	4.2

Source: MSU/MOFFA 2006 Survey

Table A3-2. Ranking of Production Problems, Fruit Farms

Problem	Average Ranking (15 responses)
Cost of Organic Seed	2.1
Weed Control	2.5
Insect Damage	2.5
Diseases	2.5
Finding Organic Seeds	2.8
Cost of Inputs	3
Soil Fertility	3.1
Labor Costs	3.2
Access to Labor	3.2
Nitrogen Management	3.3
Irrigation	3.3
Access to inputs	3.3
Processing Options	3.7
GMO Contamination	4.3
Pesticide Drift	4.4

Source: MSU/MOFFA 2006 Survey

Table A3-3. Ranking of Production Problems, Bean/Grain Farms

Problem	Average Ranking (54 responses)
Weed Control	2.4
Cost of Inputs	2.9
Soil Fertility	3
Nitrogen Management	3.2
Insect Damage	3.3
Labor Costs	3.3
Access to Labor	3.3
Finding Organic Seeds	3.3
Cost of Organic Seed	3.3
Access to inputs	3.4
GMO Contamination	3.6
Pesticide Drift	3.6
Diseases	3.7
Processing Options	3.7
Irrigation	4.1

Source: MSU/MOFFA 2006 Survey

Table A3-4. Ranking of Production Problems, Livestock Farms

Problem	Average Ranking (20 responses)
Processing Options	2.9
Access to Organic Stock	3.1
Access to Labor	3.3
Cost of Inputs	3.4
Access to inputs	3.5
Labor Costs	3.5
Access to Organic Feed	3.5
Cost of Organic Feed	3.5
Animal Parasites	3.7
Soil Fertility in Pasture	3.9
Animal Disease	3.9
Pesticide Drift	4.1
Weed Control in Pasture	4.1

Source: MSU/MOFFA 2006 Survey

Table A3-5. Production Problems for Organic Farmers, Ranked 1(highest)-11(lowest)

Problem	Vegetable	Fruit	Bean/Grain	Livestock
Weed Control	1	2	1	
Nitrogen Management	8	8	4	
Soil Fertility	6	5	3	
Insect Damage	4	2	5	
Diseases	6	2	8	
Irrigation	5	8	9	
GMO Contamination	10	10	7	
Pesticide Drift	11	11	7	
Cost of Inputs	3	4	2	4
Access to inputs	7	8	6	5
Labor Costs	4	6	5	5
Access to Labor	9	7	5	3
Processing Options	9	9	8	1
Finding Organic Seeds	6	3	5	
Cost of Organic Seed	2	1	5	
Access to Organic Stock				2
Access to Organic Feed				5
Cost of Organic Feed				5
Animal Parasites				6
Soil Fertility in Pasture				7
Animal Disease				7
Pesticide Drift				8
Weed Control in Pasture				8

Source: MSU/MOFFA 2006 Survey

Note on Pesticide Drift and GMO Contamination. In the 2006 survey, farmers did not identify contamination by pesticide drift or from genetically modified organisms (GMOs) as a serious problem. The authors believe that this is because the survey question focused on day-to-day production problems, and these issues may not be daily concerns. Eighteen percent of respondents identify pesticide drift as a serious or common problem; and 22% of 85 respondents identify GMO contamination as a serious or common problem.

When considered by production type, the results are somewhat different. Pesticide drift is a serious problem for 10% of vegetable growers (n=29), 8% of fruit growers (n=12), 27% of bean and grain growers (n=49), and 13% of livestock producers (n=15). GMO contamination is a serious problem for 14% of vegetable growers (n=29), 11% of fruit growers (n=9), and 30% of bean and grain growers (n=47). Of the bean and grain growers, 43% cite GMO contamination as not a problem.

These results do contrast with those in the 4th OFRF Survey, in which 46% nationally indicated that the risk of GMO contamination was very high, high or moderate. Nevertheless, in contrast to the specific, day-to-day production focus of the questions in the 2006 survey, the OFRF questions were part of a series of questions specifically oriented to farmers' perceptions of GMOs and their impact on production and marketing. In addition, with the exception of those growing corn, most Michigan organic farmers do not cultivate crops that are currently threatened by GMO contamination through pollen drift.

Organic Agriculture in Michigan: 2006 Survey Report



This report provides an overview of the status of organic agriculture in Michigan as of 2005, along with results from a 2006 survey of Michigan's certified organic farms and processors.

A copy of this report is available as a PDF at www.moffa.org.

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