

FARM VIABILITY AND DEVELOPMENT:

MICHIGAN GOOD FOOD WORK GROUP REPORT SERIES

Report No. 4 of 5



JUNE 2011

This report was developed with leadership from the C.S. Mott Group for Sustainable Food Systems at Michigan State University, the Food Bank Council of Michigan and the Michigan Food Policy Council. This report, along with the others in the series, provides the foundation for the goals and agenda priorities put forth in the Michigan Good Food Charter.

FARM VIABILITY AND DEVELOPMENT WORK GROUP

Co-Conveners:

Susan Cocciarelli, Community Economic Development Specialist, C.S. Mott Group for Sustainable Food Systems at Michigan State University

Tom Edison, Community Organizer and Developer, Northern Innovative Communities

Contributors:

Chris Bardenhagen, farmer, Bardenhagen Farms

Jim Bardenhagen, farmer, Bardenhagen Farms

Alexis Bodganova-Hanna, founder, Michigan Young Farmers Association

Morse Brown, Multicultural Farmers Program Manager, Michigan Food and Farming Systems

A.J. Brucks, Executive Director, Van Buren Conservation District

Jane Bush, farmer, AppleSchram Orchard

Patty Cantrell, Principal, Regional Food Solutions, LLC

John Dutcher, farmer, Goetzville, Mich.

Karen Fifield, 4-H Better Kids Care Program Associate, MSU Extension, Montmorency County

Marlin Goebel, farmer, Hillman, Mich.

Nigel Griswold, Michigan Land Use Institute

Julie Hales-Smith, Manager, Cities of Promise Initiative, Michigan State Housing and Development Authority

Lee LaVanway, Market Master, Benton Harbor Fruit Market

Jim LeCureux, Value-added Specialist, Hillman, Mich.

Jim Monroe, Farm Service Agency, Northwest Lower Michigan

Vicki Morrone, Outreach Specialist, C.S. Mott Group for Sustainable Food Systems at Michigan State University

Alan Olson, Utopia Foundation, Traverse City, Mich.

Diane Rekowski, Executive Director, Northeast Michigan Council of Governments

Rob Serrine, Extension Educator, MSU Extension, Leelanau County

Jim Sluyter, Get Farming! Coordinator, Michigan Land Use Institute

Brent Voss, Agriconsumer Financial Services Officer, Greenstone Farm Credit Services

Wendy Wieland, Agriculture Innovation Counselor, Northern Lakes Economic Alliance

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FARM VIABILITY AND DEVELOPMENT:

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VISION

We envision farming as an economically viable livelihood, which we define as farms where the farmer's primary occupation is farming, the farm operator household earns at least the Michigan median household income¹, and farm workers are paid fairly. We envision strong local and regional agricultural markets in Michigan, integrated with our national and global agricultural markets. We envision strong support for new and beginning farmers in acquiring access to land, capital business training and agronomic training. We envision farmland protection policies that support the economic viability of farming as a livelihood and ensure that our prime agricultural lands are treated as a resource for generations to come. We envision a diversity of farmers and farm types, all supported by the food system and by public policies and regulations.

A HEALTHY AND PROSPEROUS FARM SECTOR IS THE FOUNDATION OF A STRONG FOOD SYSTEM. IN THE WORDS OF A BUMPER STICKER SLOGAN, "NO FARMS, NO FOOD."

CURRENT STATE OF AFFAIRS



We start from the premise, outlined in the Michigan Good Food Charter, that diversity in our agricultural system helps to measure the sustainability of our food supply. Diversity has numerous dimensions—scale, product, production strategy, market, farmer background and ownership strategy. Many parts of the agricultural economy are very healthy at the moment – for example, the high global prices of corn and soybeans² have helped many field crops producers do quite well. This report does not attempt to focus on the full array of agricultural production and markets. Rather, it focuses on the opportunity to build a strong, demographically diverse and profitable farm sector growing traceable, differentiated food products for local and regional markets. We do not expect or advocate that all Michigan agriculture focuses on this opportunity, but we do believe that it is a good opportunity for many new and current farmers.

Michigan agriculture today is complex and dynamic, harboring both successes and challenges. The economic strength of agriculture, which as a sector has continued to grow in the midst of a widespread recession; the great diversity of cultivated crops; and the vast knowledge of production strategies across the state are reasons to be optimistic. On the other hand, the loss of farmland and a reliance on limited resources should be reasons for concern. Many farms contribute significantly to our state's economy, but too many of our farmers are losing money or finding it necessary to support themselves through off-farm work. Though consumers are increasingly interested in food from Michigan, many farmers are approaching retirement without an obvious next generation of farmers coming behind them. Few young people are pursuing farming careers.

¹ \$45,254 based on median household size of 2.56 people in 2009. Michigan QuickFacts from the U.S. Census Bureau; <http://quickfacts.census.gov/qfd/states/26000.html>.

² As of March 2011.



We see an opportunity to adopt specific strategies that build on Michigan’s agricultural strengths and address its challenges by looking to:

- The breadth of Michigan agriculture.
- The depth of our production knowledge among farmers and through our land-grant university research.
- Consumer trends supporting local, sustainable and organic products.
- The potential for linking agriculture to sustainable economic development, public health improvement and natural resource preservation.
- The foundational components for viable farming, including land, loans, training and markets.
- Opportunities to cultivate individuals from various backgrounds as new farmers – immigrants, those pursuing second careers and young people, from both within and outside farm families.

By paving the way for new farmers and strengthening the viability of current farmers, these strategies can ensure a more prosperous agricultural sector and a more robust Michigan food system, and can spur much-needed economic development across the state.

Characteristics of Michigan Farms

Michiganders have long boasted that our state has the greatest diversity of agricultural products of any state save California. That diversity is due to Michigan’s unique position in the center of the Great Lakes, to its stretch from a latitude of 41° 54’ 59” at Monroe to 47° 28’ 8” at Copper Harbor, and to the many races and ethnicities of people whose food and farming cultures have influenced Michigan farming. An additional factor supporting Michigan’s agricultural diversity is its strategic position vis a vis eastern U.S. population centers.

Michigan farms and farmers have experienced the same economic pressures and trends as other sectors in the United States. Farms have steadily consolidated as technology permitted each farmer to produce more and as farmers’ children selected non-farm occupations. Farmland, defined by policies as “undeveloped” and less valuable than other land uses, has been taken for “higher” uses. Many midsized farms, which have been the foundation of many of Michigan’s rural communities, are disappearing as they either grow larger or sell out.

To better understand Michigan farms and farming, we begin with some basic statistics. Unless otherwise indicated, all numbers in this section are from the 2007 Census of Agriculture.³

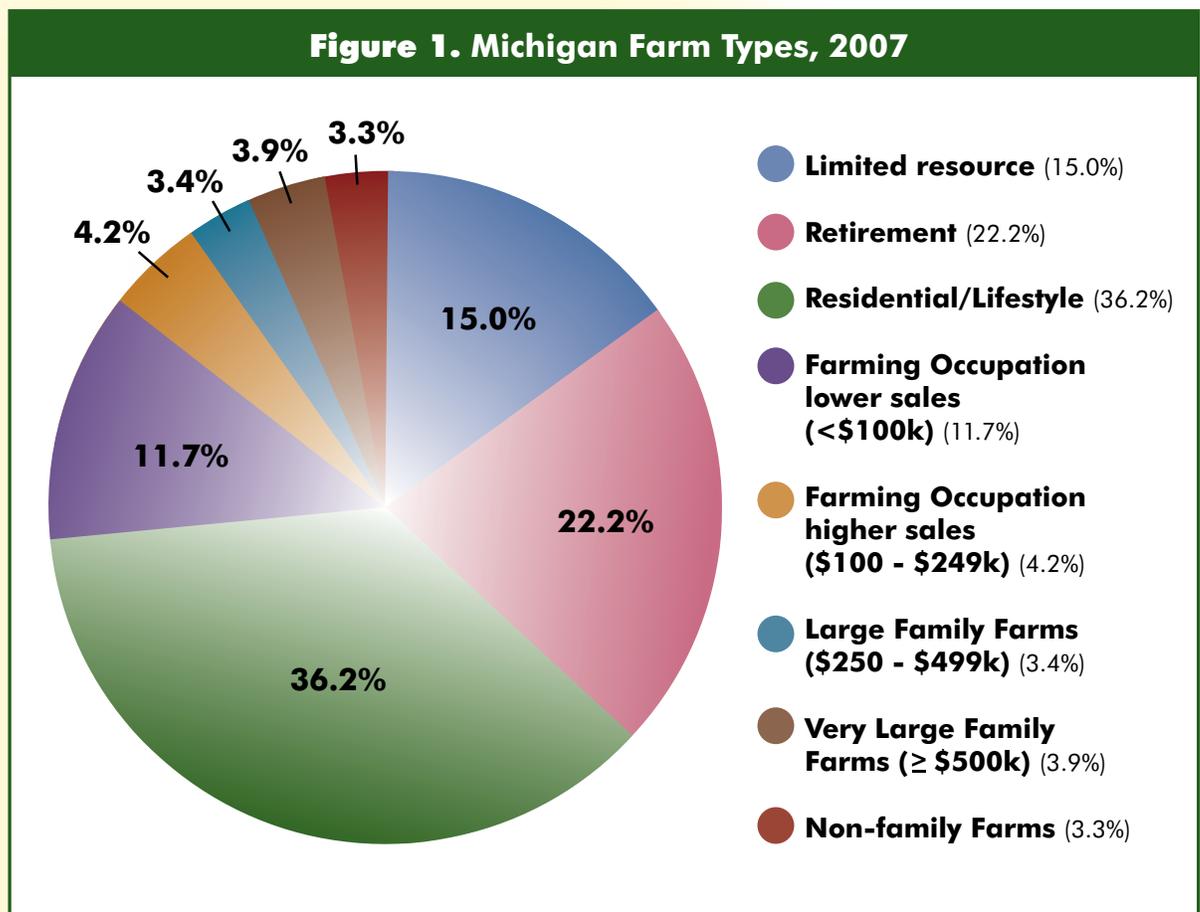
In 2007, Michigan had about 56,000 farms occupying about 10 million acres – the average farm size was 179 acres, and farms occupied about 29 percent of the state’s land. Less than half (44 percent) of these farms’ operators indicated that farming was their principal occupation. Of the \$5.7 billion worth of farm products sold, 58 percent came from crop sales and 42 percent from livestock sales. The average market value of products sold was slightly more than \$100,000 per farm, government payments averaged about \$5,000 per farm, and net cash farm income averaged about \$23,000 per farm. The average age of farm operators was 56.3 years.

But totals, averages and snapshot statistics can mask many key details, especially with an agriculture as diverse as Michigan’s, so it is important to look a little closer. It is also important to remember that the U.S. Department of Agriculture (USDA) defines a farm as any place that produced or sold or normally would have produced and sold at least \$1,000 of agricultural products during a given year. A small farm is a farm with sales less than \$250,000 per year, according to the USDA definition.

³ See http://www.agcensus.usda.gov/Publications/2007/Full_Report/index.asp.

FARM TYPES

One way to examine Michigan's diverse farms is to use the farm typology developed by the USDA's Economic Research Service (ERS). Figure 1 shows the percentage of Michigan farms that each farm type comprises. Nearly three quarters of Michigan's farms are either residential/lifestyle farms (small farms whose operators report a major occupation other than farming), retirement farms (small farms whose operators report they are retired, although they continue to farm on a small scale) or limited-resource farms (gross sales of less than \$100,000 and total principal operator income of less than \$20,000). These farms produce relatively small amounts of farm products and farm income for their operators. Note also that nearly 12 percent of Michigan farms fall into the category of "Farming Occupation – lower sales." These are farms that depend a lot on farming for income but are grossing less than \$100,000 annually.

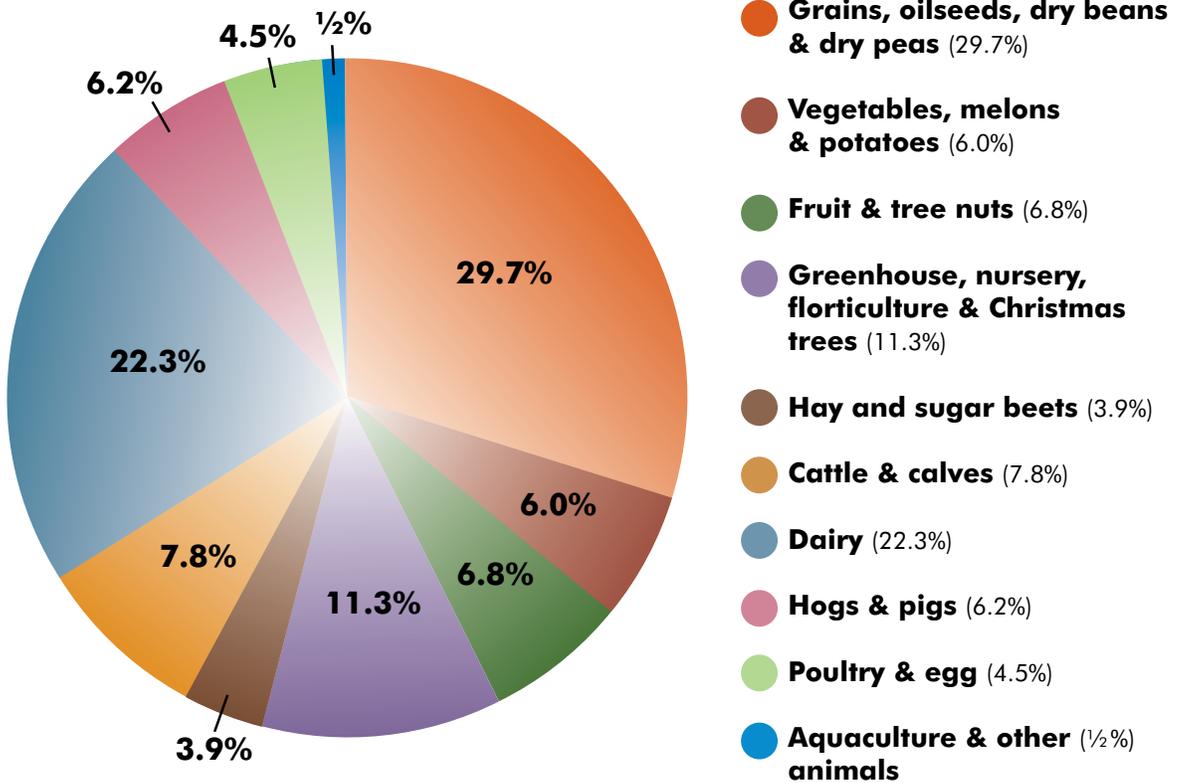


FARM PRODUCTS

The major farm production types in Michigan are shown in Figure 2. Oilseeds and grains (predominantly soybeans and corn) at nearly 30 percent plus dairy production at 22 percent accounted for over half the market value of Michigan's farm products.



Figure 2. Percent of Michigan Market Value by Production Type, 2007



FARM ACREAGE

One way to think about farm size is by acreage. Although the variety in farm products and production methods rules out direct comparisons, it is still useful to look at the general trends in farm size. The average Michigan farm is gradually becoming smaller – from 215 acres in 1997 to 190 acres in 2002 to 179 acres in 2007. During the same period, the number and percentage of large-acreage farms in Michigan slightly increased. Two important trends account for these seemingly contradictory facts. First, Michigan’s midsized farms (50 to 499 acres) decreased from 57.4 percent of Michigan farms in 1997 to 47.3 percent in 2007. Second, Michigan’s small-acreage farms (1 to 49 acres) increased from 31.9 percent of Michigan farms in 1997 to 44.5 percent in 2007. Michigan is losing its midsized farms to both larger and smaller farms and to non-farm development (see Figure 3).

Figure 3. Trends in Michigan Farm Size

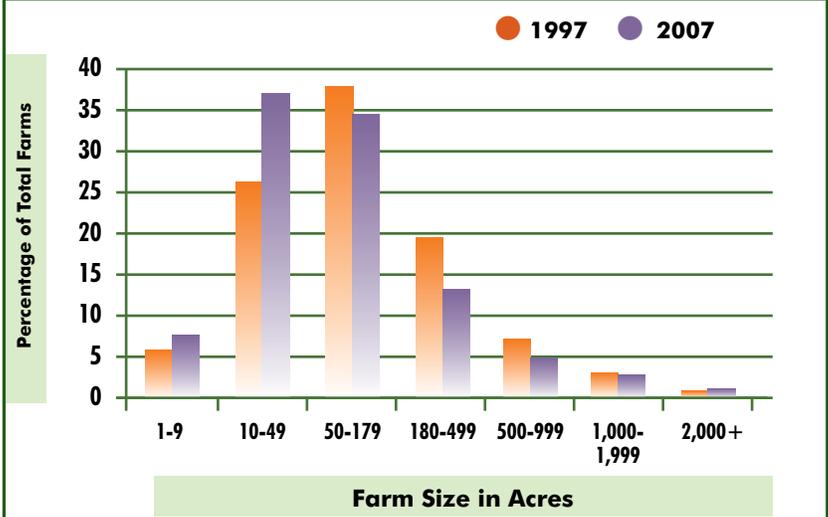
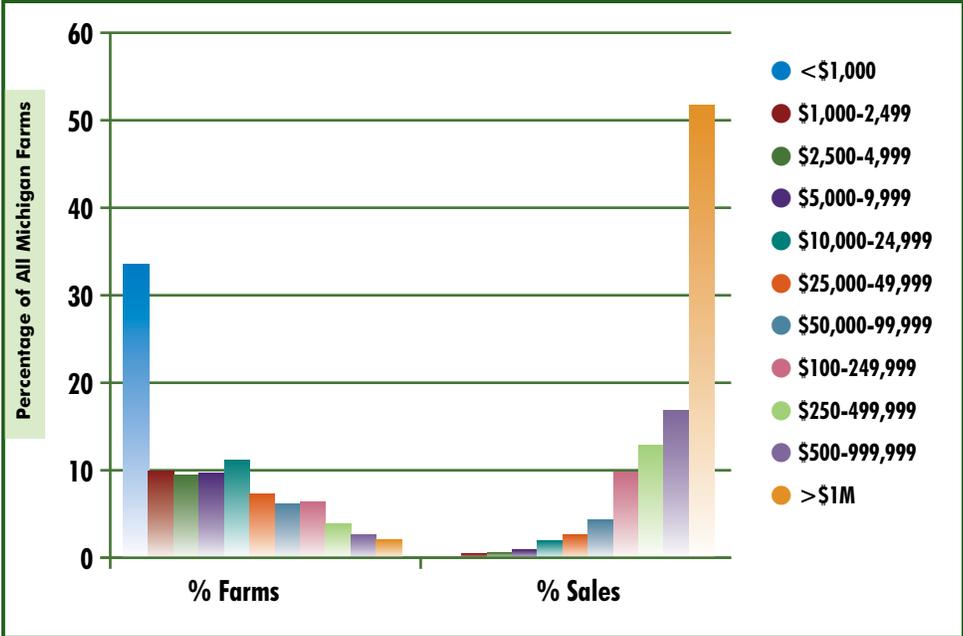


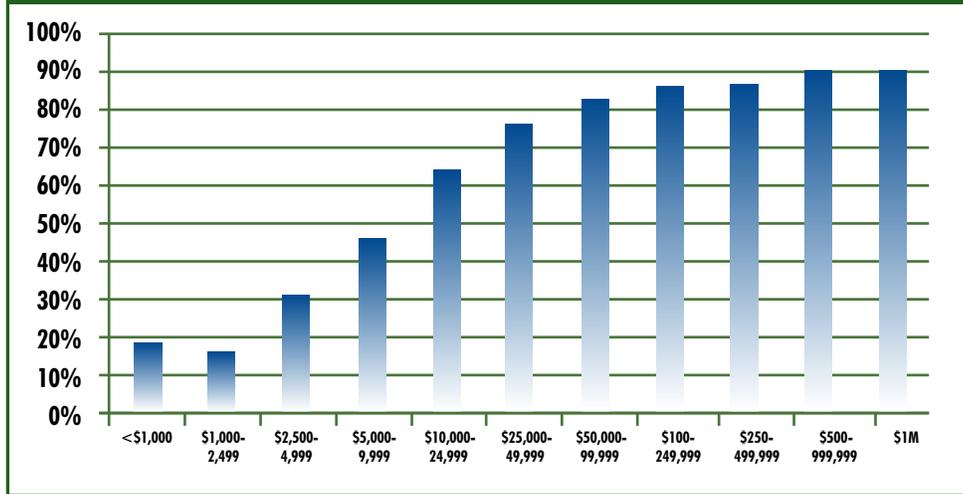
Figure 4. Distribution of Michigan Farms and Farm Sales by Value of Sales, 2007



DISTRIBUTION OF FARMS AND SALES

Figure 4 shows the distribution of farms and farm sales in Michigan on the basis of farm sale categories. The very smallest category of farms – those with less than \$1,000 in sales – accounts for about one-third of all Michigan farms, but their products account for well under 1 percent of overall sales. This is an important reminder that discussions of “the average farm” may often mean little without additional information.

Figure 5. Percentage of Michigan Farms with Positive Net Farm Cash Income by Sales Category, 2007



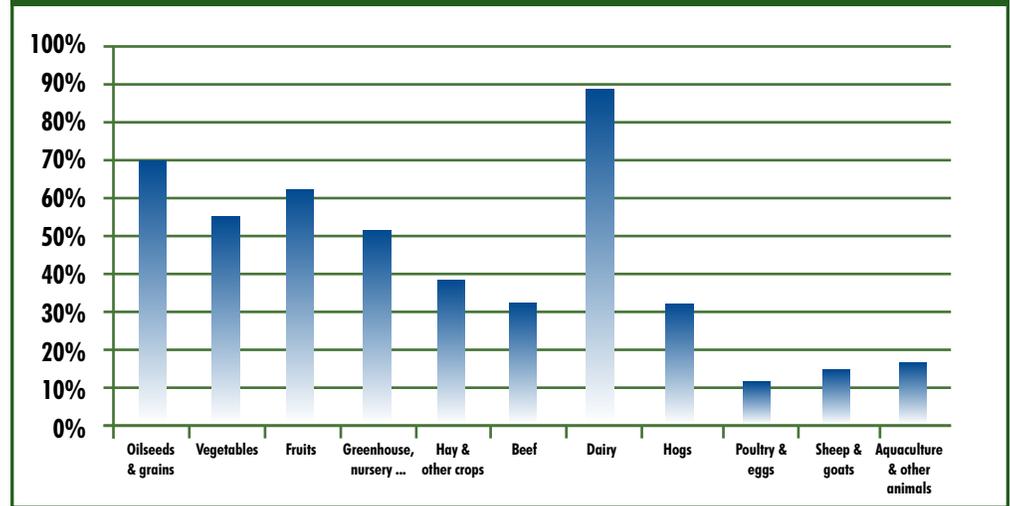
FARM PROFITABILITY

There are many ways to measure farm profitability, each with both advantages and drawbacks. Overall, 45.6 percent of Michigan farms had positive net farm cash income in 2007. Figure 5 shows the percentage of Michigan farms in each sales category that showed positive net farm cash incomes. In general, the percentage increases as sales increase, but the increase tends to level out as the farms generate enough sales to provide a reasonable livelihood.



Farm profitability varies from year to year and among types of farms. Figure 6 shows the percentage of farms within each North American Industry Classification category with positive net cash farm incomes in 2007.

Figure 6. Percentage of Michigan Farms with Positive Net Farm Cash Income by NAIC, 2007



FARM DIRECT SALES

Though it's still a small proportion of the Michigan agrifood economy, direct-to-consumer agricultural markets are growing rapidly. Between 1997 and 2007, direct-to-consumer food marketing in the north central United States⁴ (including Michigan) grew 96.5 percent⁵, and in 2007, the region had higher direct sales (\$300.8 million⁶) than any other region. In 2008, the Michigan Farm Market Task Force issued a report to the Michigan Agriculture Commission affirming that agri-tourism, including farm markets in particular, will become increasingly important to the agriculture industry in Michigan.⁷

ORGANIC PRODUCTION

Approximately 1 percent of Michigan farms produce certified organic products, and the diversity of Michigan's organic products is on par with that of conventionally grown products. Michigan's certified organic tillable acres increased 180 percent between 2000 and 2008, and the number of certified organic farms rose from 143 in 2000 to 256 in 2008.⁸ Michigan is in the top 20 states in total organic acreage.⁹ (Organic farms with less than \$5,000 in sales annually are allowed to market their products as organic without being certified so long as they follow all other aspects required by the USDA National Organic Program.) In 2008, 68 Michigan farms were transitioning 5,387 additional acres of cropland to organic production.¹⁰

⁴ States are Iowa, Illinois, Indiana, Michigan, Minnesota and Wisconsin.

⁵ Swenson, D. (2010) *Selected Measures of the Economic Values of Increased Fruit and Vegetable Production and Consumption in the Upper Midwest*; Department of Economics, Iowa State University Ames, Iowa. www.leopold.iastate.edu/research/marketing_files/midwest.html.

⁶ Ibid.

⁷ Michigan Farm Market Task Force. (2008) *Final Report to the Michigan Commission of Agriculture*. Retrieved from: www.michigan.gov/documents/mda/FMTFFinrep_264453_7.pdf.

⁸ USDA NASS Michigan Field Office. (2008) *2008 Organic Production Survey: Michigan*. Retrieved from: www.nass.usda.gov/Statistics_by_State/Michigan/index.asp.

⁹ Bingen, J., Osborne, C., & Reardon, E. (2007) *Organic Agriculture in Michigan: 2006 Survey Report*. Retrieved from: http://www.moffa.org/f/MI_Organic_Agriculture_Report_March_2007.pdf.

¹⁰ USDA NASS Michigan Field Office. (2008) *2008 Organic Production Survey: Michigan*. Retrieved from: www.nass.usda.gov/Statistics_by_State/Michigan/index.asp.

Challenges Facing Michigan Agriculture

The future health of the food system and the vitality of urban and rural communities hinge on both the success of current farmers and the successful entry of new farmers. Currently, however, Michigan is experiencing threats that stand to compromise agriculture's resiliency and growth.



Photo by Vicki Morrone.

LOSS OF FARMLAND

Farmland has steadily decreased since 1949 in the United States, shrinking by 8.4 percent between 1949 and 2002.¹¹ Michigan has been no exception to this trend. Although the total number of Michigan farms grew between 2002 and 2007 – from 53,315 to 56,014 – the amount of farmland declined by 111,151 acres.¹² Over the 25-year period from 1982 through 2007, Michigan experienced a 19.5 percent decline in total cropland.

Although the current economic situation has slowed the demand for farmland, it will increase again as the economy improves. A particular concern for Michigan is that many prime areas for fruit and vegetable production are also desirable areas for residential development.

If farms are not profitable, more land will transition out of agricultural use to “higher value” residential or commercial use. According to the 2010 U.S. Census, though the state as a whole lost population, many of Michigan's rural areas gained population,¹³ and this increased development pressures on farmland. The loss of farmland also diminishes the scenic beauty of the region, which supports tourism, a critically important economic sector in Michigan's northwest region,¹⁴ as well as other areas of the state.

¹¹ USDA Economic Research Service. (2006) *Agricultural Resources and Environmental Indicators, EIB-16*. Retrieved from: <http://www.ers.usda.gov/publications/arei/eib16/>.

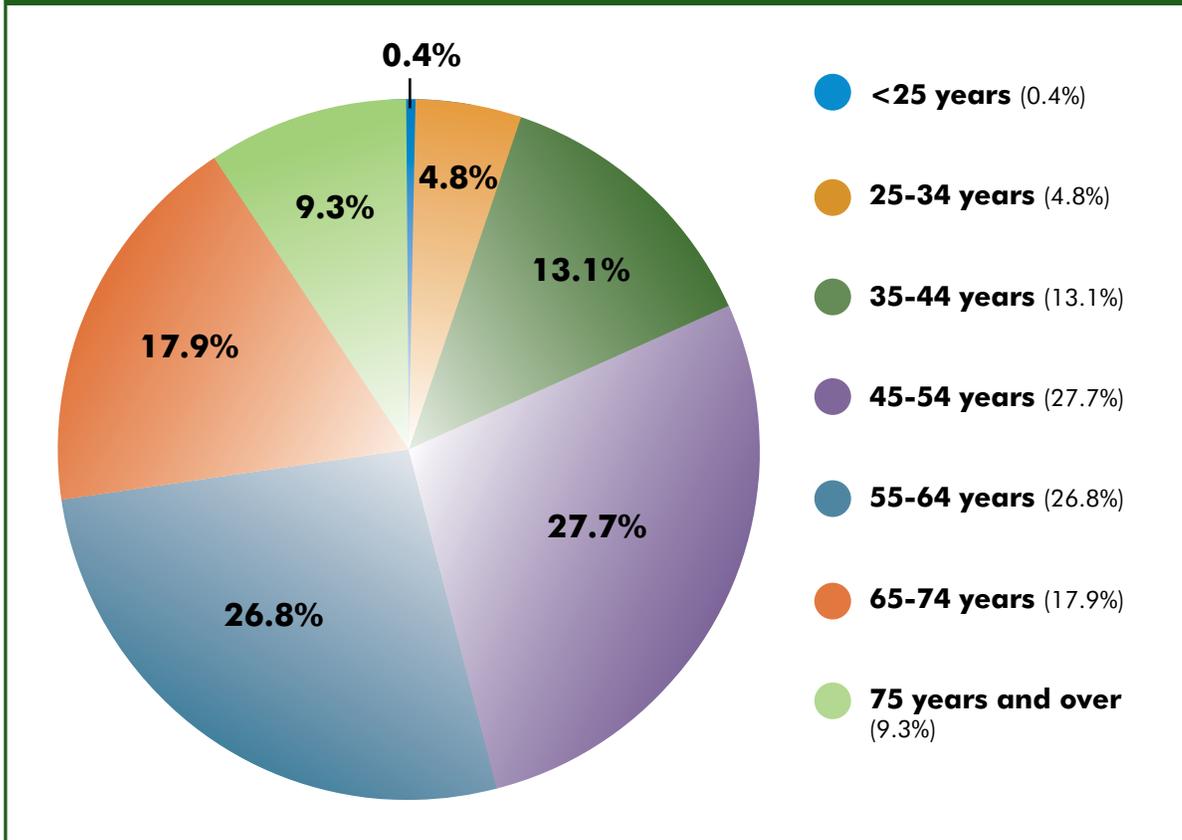
¹² USDA Agriculture Census, Table 1 Historical Highlights, 2007, and Earlier Census Years.

¹³ U.S. Census Bureau. 2010 Census.

¹⁴ Krieger, D. (2009) *Northwest Michigan Farm Factor, Economic Impacts, Challenges, and Opportunities*. Michigan Land Use Institute. Retrieved from: <http://www.mlui.org/downloads/AgWhitePaperFinal.pdf>



Figure 7. Age of Michigan Principal Farm Operators, 2007



AGING FARMERS AND FARM SUCCESSION

Michigan farmers are aging, and their average age continues to increase. In 2007, the average age of all Michigan farm operators was 54.1 years. For principal farm operators it was 56.3. As Figure 7 shows, only 5.2 percent of principal farm operators are under 35 years of age, and 27.2 percent are age 65 or older. In many instances, farm succession – the passing of farms from the older to the younger generation within the family through purchase, gift or inheritance – is not adequately planned in advance.¹⁵ Spafford found that only 12 percent of farmers had formulated retirement plans, and 88 percent indicated they had not made adequate financial plans to provide income for their retirement.¹⁶ Because aging farmers own much of Michigan’s farmland, there are relatively few entrants into farming and many new entrants are first-generation farmers, there is reason for concern. We risk the loss of local agricultural knowledge and may face dwindling numbers of people who will grow food in our region.

FARM WAGES

Fair compensation is important for both family members and hired labor. Farms employ two general types of labor – farmers and their family members, whose farm earnings come from the difference between revenue and expenses, and hired workers. With labor-saving innovations and increased food imports, both types of farm labor have declined in the United States over the past 50 years. The decline has been sharper in family labor.¹⁷ More than half (55.4 percent) of Michigan farms report net income losses, and the principal farm operators on 58 percent of farms are retired or receiving most of their income from off-farm work. This suggests that farm family labor may generate fairly low “wages” on many Michigan farms.

¹⁵ FarmLASTS. (2007-2010) *The FarmLASTS Project Online Manual: Farm Land Access, Succession, Tenure and Stewardship*. Retrieved from: www.uvm.edu/farmlasts.

¹⁶ Spafford, K. (2006) *Legacy by Design: Succession Planning for Agribusiness Owners*. Marketplace Books.

¹⁷ Martin, P., and Calvin, L. (2010) *Immigration Reform: What does it Mean for Agriculture and Rural America?* *Applied Economic Perspectives and Policy* 32(2), 232-253.



Most Michigan farms do not employ labor. Of 56,014 farms, 11,315 farms (20 percent) reported hiring labor in 2007, for a total of 86,072 workers. Less than 3 percent reported hiring migrant farm labor. Of the total farm workers reported, 28 percent worked 150 days or more, and 72 percent worked fewer than 150 days. A 2006 study of Michigan's migrant and seasonal farm workers reported an estimated 35,148 migrant farm workers plus 10,652 non-migrant seasonal farm workers for Michigan.¹⁸

The Michigan Agriculture Migrant and Seasonal Farm Worker Program lists 44 crops that typically provide work in agriculture, with jobs ranging from planting and weeding to harvesting, packing and shipping. According to the National Agricultural Statistics Service, Michigan's 2010 annual average farm worker wage rate was \$11.09/hour for all hired workers and \$10.32/hour for field workers.

Small changes in farm worker piece rates can mean huge impacts on the workers and their families without significant changes in overall food costs. For example, a 2010 agreement between Immokalee, Florida, farm workers and buyers of the tomatoes that they pick amounted to paying them about an additional penny per pound and was projected to result in a potential increase in annual wages from \$10,000 to \$12,000 a year to \$17,000.

NARROW MARKETING STRATEGIES

Historically, Michigan's producers have marketed through a limited range of markets. Dairy not used for fluid milk entered a very narrow window of processing possibilities. Seventy-four percent of fruits and 44 percent of vegetables were sold to the processing sector, and 75 percent of potatoes went for chips or other processed products.¹⁹ Though some of these appear to be stable markets, they demonstrate a limited scope and neglect the potential of other market segments. In addition, individual segments are subject to sudden jolts such as Chinese apple juice concentrate flooding the U.S. market and largely destroying that market for Michigan growers, as happened early in this century. For some products, the strategy has been to expand in scale so that, though the margin of profit per unit of production was small, enough units produced a profit. In some cases, this has led to a cycle of dependence on loans for ever larger equipment to farm an ever larger number of acres.

With our agriculture industry largely geared toward national and global supply chains, Michigan farmers are missing out on the market opportunities behind the growing demand for traceable food products, not only from individual consumers but also, increasingly, from institutions looking to source food locally.

SOIL AND WATER QUALITY

The Great Lakes on three sides of both Michigan peninsulas moderate the climate, making Michigan suitable for producing a wide range of temperate fruits and vegetables as well as grains. Successful farming requires balancing and integrating effective production practices with conservation measures. An integrated approach to using land can balance protection of natural ecosystems with farm business needs. The need to maintain and restore environmental quality is an ongoing challenge as farmers strive to achieve maximum yields in fields that are adjacent to waterways and drain into Michigan's lakes or streams and as the availability of quality agricultural land decreases.

¹⁸ Larson, A. C. (2006) *Migrant and Seasonal Farm worker Enumeration Profiles Study: Michigan*. Lansing, Mich.: Michigan Interagency Migrant Services Committee.

¹⁹ Cantrell, P., Conner, D., Erickcek, G., and Hamm, M. W. (2006) *Eat Fresh and Grow Jobs, Michigan*. Retrieved from: <http://www.mottgroup.msu.edu/uploads/files/59/EatFresh.pdf>.



Michigan has many fragile ecosystems. A land area that was once two-thirds wetlands has been converted to two-thirds tillable land. These lands are very vulnerable to environmental degradation, and users of these soils must implement sound practices to assure long-term soil health and to preserve the quality of the waterways and groundwater for a range of uses. Farmers who adopt environmentally sustainable practices can be recognized through the Michigan Agricultural Environmental Assurance Program (MAEAP), a voluntary program that since 2000 has assisted farmers to address practices that pose a risk to the environment. MAEAP has hosted educational events for more than 10,000 Michigan farmers and certified more than 850 of them for implementing sustainable management practices that led to environmental improvements.

Opportunities to Grow Michigan's Economy

Though all of the aforementioned challenges are significant, Michigan also has an opportunity to expand the already pronounced contribution of agriculture to our state economy by fostering the numerous successful strategies that are already emerging.

According to the Michigan State University Product Center, Michigan's agrifood-energy system contributes \$71.3 billion (total economic impact) annually, accounting for nearly 20 percent of the state's economy; provides 1.05 million jobs (24 percent of Michigan's workforce); and accounts for \$8.6 billion in investment.²⁰ The direct economic impact of the agrifood system is estimated to be \$42.6 billion, with \$28.1 billion of indirect economic impacts. The system has potential to contribute further to the economy by generating between 12,000 and 23,000 additional jobs and nearly \$1 billion more annually in direct investment.

The Michigan Department of Agriculture's 2008 report, *Michigan Agriculture at a Glance*, cites indications of agricultural value to the Michigan economy. Michigan's food and agricultural economy expanded at a rate of more than five times that of the general economy (11.9 percent versus 2 percent) between 2006 and 2007 and continues to expand. This suggests that it would make sense to focus on the food and agriculture sector as an important foundation for Michigan's economic recovery and growth.

The report also stated that families or individuals own more than 90 percent of Michigan farmland, with significant growth in the number of small farms, and that more than 35 percent of the state's total farmland is covered by some form of preservation agreement. This situation offers potential for numerous farm-based businesses to start up on a small scale.

A March 2009 survey of Michigan residents²¹ found that 74.2 percent of survey respondents believed that the agricultural industry and farmland are "very important" and 22.8 percent, "somewhat important" to Michigan's economic recovery. The combined value of 97 percent was greater than each of the values for renewable energy, the automobile industry, parks and trails, and tourism. Many Michigan residents see farmland and agriculture as key parts of our state's future.

Most research to date has modeled the potential for capturing the market growth around "direct", "local" and/or "fresh" and expanding a state's farm and local food economy. Two studies have explored the potential economic impact of shifts in food production and consumption. It is clear that Michigan could realize significant economic gain by being attentive to these growing market forces.

A 2006 report²² explored the potential economic impact if Michigan fruit and vegetable producers shifted marketing practices to increase fresh market sales rather than sell large percentages of product (74 percent of fruit and 44 percent of vegetables) to processors. Researchers developed six scenarios in which current farmers doubled or tripled the quantity of produce sold into fresh markets. Economic modeling showed (conservatively) the potential to generate up to 1,889 new jobs and \$187 million in new personal income by such shifts.

²⁰ Knudson, B., & Peterson, H. C. (2009) *Second Interim Update on the Economic Impact of Michigan's Agri-Food and Agri-Energy System*. Retrieved from: <http://www.aec.msu.edu/product/documents/2nd%20Interim%20Agri-Food%20Economic%20Impact.pdf>.

²¹ Adelaja, S., Borowy, T., and Hailu, Y. G. (2010) *How important are the Agricultural Industry and Farmland to Michigan's Economic Recovery? A Survey of Michigan Residents*. *State of the State Bulletin*. Land Policy Institute at Michigan State University. Retrieved from: http://www.ippsr.msu.edu/SOSS/Publications/agindustry&frmland_sosbulletin_081310%5B1%5D.pdf.

²² Cantrell, P., Conner, D., Erickcek, G., and Hamm, M. W. (2006) *Eat Fresh and Grow Jobs, Michigan*. Retrieved from: <http://www.mottgroup.msu.edu/uploads/files/59/EatFresh.pdf>



A 2008 statewide study²³ demonstrated the potential for agriculture to drive economic growth in Michigan. A team of Michigan State University researchers measured the economic impact of meeting USDA recommended daily requirements for fresh fruits and vegetables. They modeled the impact of the following scenario: state residents increased consumption of all fruits and vegetables to meet dietary guidelines, and the additional consumption of those items able to be grown in Michigan were sourced from Michigan farmers when in season or retained in controlled-atmosphere storage. This change would result in a net increase of 1,780 off-farm jobs and a total net increase of \$211 million in income.

Despite the important role that agriculture plays in Michigan's economy, as a state we have seldom recognized or capitalized on the economic development potential that Michigan farms and farmers represent. Michigan, like much of the nation, is experiencing a period of exciting opportunity for agriculture, with a renaissance of consumer and institutional interest in locally produced foods. Strategic support for farmers selling in state, presents an opportunity to leverage this consumer interest in Michigan foods towards expansion of our agricultural economy.

There are a variety of ways to think about expanding and developing markets that improve farm income and/or create opportunities for new-entry farmers. These can be either direct market or wholesale. Small-scale farmers probably need to direct market their products to have a chance of generating a healthy income, but medium- and large-scale farmers can potentially improve their bottom line by providing product to the fresh wholesale markets. The following pages describe some of the particularly promising strategies for building a thriving agriculture sector oriented toward Michigan markets.

CULTIVATING NEW FARMERS AND NEW FARMING STRATEGIES

The consumer interest in local food is matched by a resurgence of interest in new-entry farming and new farming strategies from many quarters, including:

- Transitioning farm workers.
- Immigrants and refugees.
- Beginning farmers entering the agriculture community.
- Current farmers who need better or more cost-effective infrastructure to enhance production and distribution in regional markets.
- Farmers transitioning from conventional commodity business models to diversified and/or direct markets.
- Aspiring organic farmers.
- Farmers incorporating novel season-extension technologies.
- Urban farmers retrofitting old buildings for aquaculture or hydroponics farming or rooftop or vertical urban farming.

To expand our agricultural economy and meet our need for new farmers, not only to carry on the work of our retiring farmers but also to grow the additional fruits and vegetables we should be eating, we need to cultivate the farming interests of all of these groups. This will require programs and policies that allow them to access the capital, land, training and markets they need to be viable.

²³ Conner, D. S., Knudson, W. A., Hamm, M. W., and Peterson, H. C. (2008) *The Food System as an Economic Driver: Strategies and Applications for Michigan*. *Journal of Hunger and Environmental Nutrition*, 3(4), 371-383.



FARMERS' MARKETS

According to the Michigan Farmers' Market Association, the number of farmers' markets in the state has grown from 90 in 2001 to more than 220 today.²⁴ These markets have also become more accessible to a broader portion of Michigan's residents in the past five years, with a 20-fold expansion of farmers' markets accepting Supplemental Nutrition Assistance Program (SNAP) benefits – from three to 56 – and projected continued growth in 2011 to 70 markets.

Farmers' markets allow entry into marketing with low barriers. They provide farmers with beneficial opportunities to improve entrepreneurial skills, get feedback directly from customers and build a customer base.²⁵ Several Michigan communities – including Sault Ste. Marie, Portland, Flint and Lansing – have paired downtown revitalization and economic development growth strategies with farmers' markets. The increase in demand for farm-to-consumer marketing provides Michigan with many opportunities to expand the number of markets and the number of farmers selling at markets.

Farmers' markets have positive impacts on local economies. Otto and Varner²⁶ estimated that each dollar spent at farmers' markets in Iowa generated an additional 58 cents in indirect and induced sales, and that each dollar of personal income earned at farmers' markets generated an additional 47 cents in indirect and induced income (multipliers of 1.58 and 1.47, respectively). The multiplier effect for jobs was 1.45 – that is, each full-time-equivalent job created at farmers' markets supported almost half of a full-time-equivalent job in other sectors of the Iowa economy. Similarly, multipliers associated with farmers' markets in Oklahoma have been estimated to be between 1.41 and 1.78.²⁷ Though we lack Michigan-specific data, it seems reasonable to estimate that the multipliers here for indirect and induced income and for jobs may be about 1.5.



COMMUNITY-SUPPORTED AGRICULTURE (CSA) FARMS

Community-supported agriculture (CSA) is a model in which customers pay up front for a share of what a farm produces through a season. Though most are focused on vegetables, an increasing number involve several farms and can include a more extensive range of produce, meat, bread, milk and flowers. The USDA documented 40 Michigan CSA operations in 2000²⁸; by 2006, there were 85 CSA farms across 68 Michigan counties.²⁹ A May 2011 search on Local Harvest netted a list of 222 Michigan CSAs. CSA farms are complex operations and demand good management and production skills across a wide variety of crops, but they are an option for farm startup because they enable undercapitalized farmers to gain up-front working capital from shareholders. Most CSA operations are categorized as small farms, but this is not always the case. Across the country are examples of CSAs developing total sales of more than \$1 million.

²⁴ See <http://www.mifma.org/home/>.

²⁵ Hilchey, D., Lyson, T. A., and Gillespie, G. W. (1995) *Farmers' Markets and Rural Economic Development*. Ithaca, NY: Farming Alternatives Program Department of Rural Sociology Cornell University.

²⁶ Otto, D., and Varner, T. (2005) *Consumers, Vendors, and the Economic Importance of Iowa Farmers' Markets: An Economic Impact Survey Analysis*. Leopold Center for Sustainable Agriculture, Ames, Iowa. Retrieved April 2009 from: http://www.leopold.iastate.edu/research/marketing_files/markets_rfswg.pdf.

²⁷ Henneberry, S.R., Whitacre, B. and Agustini, H.N. (2009) *An Evaluation of the Economic Impacts of Oklahoma Farmers' Markets*. *Journal of Food Distribution Research*, Vol. 40, pp. 64-78.

²⁸ See ATTRA NSAIS publication on CSAs (trends and statistics); <http://attra.ncat.org/attra-pub/csa.html#trends>.

²⁹ See www.CSAfarms.org.

DAIRY PRODUCTION

Dairy is a critically important part of Michigan agriculture. Michigan could expand the diversity of scales represented in the dairy sector by increasing opportunities for farmers through both pasture-based and organic dairy farms. Seventy-three percent of Michigan's dairies milk between 10 and 200 cows, but the future of these midsized farms is far from certain. The decline of midsized dairy farms has significant implications for the diversity of the Michigan dairy industry, the ability of new dairy farmers to enter farming, the existence of a rural entrepreneurial middle class and the vitality of rural communities.³⁰ Other states are working to stay the decline of their state's dairy farms and foster scale

diversity through long-term planning, industry diversification, strategic financial assistance and individualized technical assistance. Grass-based dairies appear able to provide a livable family income on a scale that can be operated and managed primarily by farm family labor, and grazing dairies may present accessible startup opportunities for beginning farmers.³¹ Current research at the MSU Kellogg Biological Station is investigating grass-based dairy operations in combination with robotic milkers as a strategy for midsized farms.

PRODUCTION AND PROCESSING GROW TOGETHER

As we look to the economic development opportunities in agriculture, we should keep in mind the associated processing needs and opportunities. Livestock producers, for example, need access to federally inspected processing facilities to sell retail cuts to restaurants and grocery stores and at farmers' markets. Byron Center Meats is a small meat processor near Grand Rapids that has more than doubled in size since 2000 because it has been able to serve a niche scale of livestock producers.

"Bigger processors won't take 10 head of cattle, and other plants can't handle 10 head," said business development manager Mike DeVries.

Michigan should help identify locations for similar mid-tier meat processors in other areas of the state to open up new market opportunities for more livestock producers. To support the viability of medium-sized farms, Michigan should also help identify the mid-tier processing needs of other agriculture sectors.

BEEF CATTLE PRODUCTION

In recent years, cattle producers have been faced with several challenges due to both the recession and high grain prices. Michigan's beef cow herd fell from a peak of approximately 200,000 head in the 1980s to 92,000 head in 2010.³² Because of this dramatic decrease in cow herd numbers, there is considerable potential to expand beef cattle production, especially in northern Michigan and the Upper Peninsula, where there is undeveloped land that is more suitable for pasture than for row crops.³³ The MSU Animal Science Department is working with MSU Food Services to develop a local beef production and marketing system. The Michigan Local Beef Model is researching and developing a transferable, sustainability-minded systems approach to beef production, distribution, marketing and information exchange. The MSU Lake City Experiment Station and the MSU Beef Cattle Research Center are also studying the economics of and consumer preferences for grass-fed versus grain-fed beef.

ORGANIC PRODUCTION

The sales growth rate for organic products has leveled in the past several years but remains strong. Nationwide, organic food sales increased 15.8 percent to \$22.9 billion from 2007 to 2008. Much of this growth occurred in the traditional retail sector. For example, organic products at Kroger grocery stores have "been booming" in the past three or four years, according to company spokesman Dale Hollandsworth. Since 2006, sales of fresh organic produce have increased tenfold, and the number and variety of organic products that Kroger offers has increased dramatically.³⁴ Michigan is home to a major national organic food processor. At least one Michigan-based produce distributor and at least one national retail supermarket chain are actively seeking organic products from Michigan farms. This combination of factors shows potential for continued growth in this segment.

³⁰ Conner, D. S., Martin C. Heller, Cocciarelli, S., and Hamm, M. W. (2007) *Opportunities in Grazing Dairy Farms: Assessing Future Options*, C.S. Mott Group for Sustainable Food Systems at Michigan State University. Retrieved from: <http://www.mottgroup.msu.edu/uploads/files/59/Opportunities%20in%20Grazing%20Dairy%20Farms.pdf>

³¹ *Ibid.*

³² U.S. Department of Agriculture, *National Agriculture Summary Statistics*. (2009) *Michigan 2008-2009 Highlights*.

³³ Gerald Lindquist and Ben Bartlett, *Michigan State University Extension*, personal communication.

³⁴ Youssef, J. (2010) *More Michigan Farmers Dig Organic Methods*. *Detroit News*, March 5. Retrieved from: <http://www.cornucopia.org/2010/03/more-michigan-farmers-dig-organic-methods/>



SEASON EXTENSION

One way in which small to medium-sized farms in Michigan can differentiate their products and create greater value for their customers is to meet the growing demand for locally grown products. This is an important strategy for farmers, but Michigan's climate and short growing season limit to a few months per year the availability of fresh produce grown locally using traditional growing practices. This also limits farm income during the colder months.

Season extension is an important means of addressing this limitation. Numerous season-extension techniques such as heated greenhouses, cold storage, root cellars, coldframes, variety selection, transplant production and various means for food preservation have been employed by farmers in temperate climates to ensure food availability in months when outdoor production is restricted by temperature, snow, wind and light level influences on plant growth and development. One emerging season-extension technique is the use of hoophouses or high tunnels – greenhouses heated using passive solar energy – which extend the availability of vegetable crops and permit year-round harvest of many cold-tolerant crops.

The economic and environmental impacts of hoophouses on Michigan farms were tested in an MSU research project. Researchers found that, given good management and markets, hoophouses can increase farm revenue, but the 12 participating farmers experienced a wide range of economic outcomes. One farmer earned about \$11,000 in less than two years and more than \$23 per hour of operator labor using one 30- by 90-foot hoophouse, but another earned only \$350 in 30 months.^{35,36} Good management, including record keeping and attention to detail, was found to be critical to success, as was access to good markets.^{37,38} In other findings, Michigan consumers clearly expressed willingness to attend farmers' markets year round and pay premium prices for fresh local produce.³⁹

Results of this study and other MSU data have been compiled to create a model business plan,⁴⁰ which provides a template for securing credit for a hoophouse. It describes a scenario in which a farmer takes out a \$21,585 loan to buy a hoophouse. After three years of operation, the loan balance is only \$479, and the enterprise has increased the farm's net worth by \$4,846.

URBAN AGRICULTURE

From community gardens to small farms, interest in urban agriculture in Michigan has increased rapidly in recent years. Entrepreneurial urban agriculture, or farming as a livelihood, applies to a much smaller subset of the growing number of urban farms and gardens. There are, however, a handful of individuals and groups working toward small-scale (1 to 5 acres), profitable farms in urban areas. Detroit has even seen a few proposals for larger (over 50 acres) commercial farms. Though the economic viability of urban farms and the appropriate local government regulatory structures are, to a large extent, yet to be determined, the heightened interest in growing food among people of all walks of life and with all levels of prior experience demonstrates that this is an emerging agricultural sector that deserves further research and attention. This is becoming even truer as technology evolves to support intensive cultivation in small spaces, including on walls, on rooftops and in buildings. Furthermore, the non-profit organizations devoted to supporting urban farms and gardens are promising venues for helping both to inspire demand for Michigan foods and to educate and cultivate our next generation of farmers.

³⁵ Note: The farmers participating in this study did not pay for the hoophouses.

³⁶ Waldman, K. B., Conner, D. S., Montri, A. D., Hamm, M. W., and Biernbaum, J. A. (2010) Hoophouse Farming Startup: Economics, Efforts and Experiences from 12 Novice Hoophouse Farmers. *Extension Bulletin*, E-3138. Retrieved from: <http://www.hoophouse.msu.edu/assets/custom/files/Hoophouse%20Farming%20Startup.pdf>.

³⁷ Conner, D., Montri, A., Waldman, K., Biernbaum, J., and Hamm, M. W. (2011) Hoophouse Contributions to Farm Profitability and Food System Sustainability: Lessons from Michigan. *Journal of Extension*, 49(1).

³⁸ Conner, D. S., Waldman, K. B., Montri, A. D., Hamm, M. W., and Biernbaum, J. A. (2010) Hoophouse Contributions to Economic Viability: Nine Michigan Case Studies. *HortTechnology*, 20(5), 877-884.

³⁹ Conner, D. S., Montri, A. D., Montri, D. N., and Hamm, M. W. (2009) Consumer Demand for Local Produce at Extended Season Farmers' Markets: Guiding Farmer Marketing Strategies. *Renewable Agriculture and Food Systems*, 24(4), 251-259.

⁴⁰ Conner, D. (2010) Model Business Plan for Season Extension with Hoophouses. *Extension Bulletin*, E-3112. Retrieved from: <http://www.mottgroup.msu.edu/uploads/files/59/HoopHouseBulletin.pdf>.

MICHIGAN ECONOMIC DEVELOPMENT INVESTMENTS

Investments in food and agriculture by the state of Michigan have been relatively modest in comparison to those by a number of other states. Our state's struggling economy is one reason. There seems also to be a perception that all agricultural issues fall within the scope of the Michigan Department of Agriculture and are not relevant for other state agencies. Job training and retraining programs may have overlooked or excluded training for farm and food entrepreneurs because it does not, in the short

run, generate large cohorts of multiple, easily counted jobs. Good farmer and entrepreneurial education and training programs, however, have great potential to create new businesses rooted in Michigan communities and poised to grow and contribute over the long run.

Recently both the Michigan Department of Energy, Labor and Economic Growth (DELEG) and the Michigan Economic Development Corporation (MEDC) have taken a closer look at the potential contributions of food and agriculture. DELEG has funded a regional agricultural alliance in southeastern Michigan and a sustainable agriculture sectoral alliance in northwestern lower Michigan. The MEDC has introduced granting programs for farmers' markets and a revolving loan fund to help farmers finance hoophouse construction. In addition, recent general funding opportunities have specifically included agriculture within their scope.



Photo by Vicki Morrone.

Critical Components of Farm Viability

To most effectively take advantage of the aforementioned strategies and market segment opportunities, it is critical to build farm resource programs and policies around the core elements necessary for a viable farm operation. For farm viability and development, farmers need access to at least four essential elements: capital, land, education/training and markets. If farmers cannot adequately access capital, land, training and markets, it is very unlikely they will be able to build viable businesses. The current gaps in accessibility of each of these components reveal opportunities for policy and practice change.

1. Access to Capital

Early research on beginning farmers has indicated that many of these farmers have limited access, whether real or perceived, to traditional sources of capital and may instead use credit cards to finance their farm businesses.⁴¹ Financing farmers who are attempting high-margin, differentiated agricultural product enterprises necessitates a lending environment that accommodates this innovation. Financial capital is available in Michigan, but its accessibility to farmers depends on several variables: institutional repayment criteria, lenders' knowledge and institutional priorities, the extent to which financial institutions market their products to potential clients and geographic location.⁴² Beginning farmers represent a very small portion of most lending institutions' overall lending portfolio.⁴³ A recent report identified several key obstacles that influence the lender-borrower relationship:⁴⁴

⁴¹ Cocciarelli, S., Colasanti, K., and Goddeeris, L. (2009) *Michigan New Farm Development: Case Studies from the Southwest Michigan Emerging Farmers Initiative*. C.S. Mott Group for Sustainable Food Systems at Michigan State University. Retrieved from: <http://mottgroup.msu.edu/uploads/files/59/IDApage-FinalCaseStudies.pdf>.

⁴² Cocciarelli, S. (2009). *Financing Michigan's Sustainable Agriculture: The Availability and Accessibility of Capital for Beginning Farmers*. Retrieved from: <http://www.mottgroup.msu.edu/uploads/files/59/Financing%20Farming%20in%20Michigan.pdf>.

⁴³ Ibid.

⁴⁴ Cocciarelli, S., Suput, D., & Boshara, R. (2010). *Financing Farming in the U.S.: Opportunities to Improve the Financial and Business Environment for Small and Midsized Farms through Strategic Financing*. Retrieved from: <http://www.mottgroup.msu.edu/uploads/files/59/Financing%20Farming%20in%20the%20US.pdf>.



Potential borrower obstacles:

- A lack of personal capital: beginning farmers, especially if they are first-generation farmers, often have little or no personal equity.
- Either lack of or inability to convey farm production knowledge and/or management experience.
- Inadequate personal credit history.
- Lack of a business plan or inability to project a realistic cash flow.

Potential lending industry barriers:

- Commercial lending is moving away from agriculture.
- Lending on a small scale typically does not meet large commercial lenders' bottom-line goals.
- The number of lenders familiar with farming operations is declining.

Capital is needed at each stage of the farm enterprise, and the capital needs of farms change as they develop. This means that capital must be tailored or flexible enough to meet the needs of the largest number of farms. Capital needs are shaped by the stage of the farm business (how long it has been in operation), the experience of the farm manager, the type(s) of product(s), the time it takes for a product(s) to be market-ready, the types of markets, and the cost and value of land.

2. Access to Land

The loss of farmland to development affects its availability and price, especially for first-generation farmers. The high prices of Michigan farmland make its acquisition difficult for new farmers. The Federal Reserve Bank of Chicago reported that Michigan land prices increased 13 percent from Oct. 1, 2007, to Oct. 1, 2008. The last time farmland values in Michigan experienced a year-to-year decline was January 1987.⁴⁵ Michigan State University reported that 2010 average agricultural land values for the state ranged from \$2,544/acre for non-tilled land suitable for field crops to \$7,326/acre for land suitable for fruit trees. Rental rates varied from \$76/acre for untilled field crop land to \$165/acre for irrigated land.⁴⁶

3. Access to Education and Training

Capital without access to relevant education, training and technical assistance – especially training focused on product-specific, long-term business planning and management – is insufficient. The training that farmers need goes beyond the business plan, however. Ideally, it includes production, management and marketing assistance and ongoing support, particularly for new and beginning farmers as they deepen their understanding of their businesses and the many factors that influence success. Some programs also help build the larger infrastructure (such as provision of access to crop insurance) for farm viability.

The lack of a comprehensive, readily accessible training program for new farmers presents a significant barrier to entry into Michigan's agriculture sector. Training opportunities are scattered statewide and uncoordinated. No single program covers all core production and business management competencies along with infrastructure support to assist with land, capital and market access.

Rather, newer and more innovative farmers rely on information obtained via the Internet, attend programs outside the state, or try to take advantage of peer-to-peer networking, information gathering at conferences or other venues to try to build their skills.⁴⁷ Information gleaned at the inaugural meeting of the Michigan Young Farmers Association in 2009 indicated that many of Michigan's new farmers attending this meeting have developed farming skills and obtained technical assistance through internships and apprentice programs such as WWOOF (World Wide Opportunities on Organic Farms), on-farm employment through peer-to-peer networks or self-directed study.

⁴⁵ Wittenberg, E. and Hanson, S. (2009) *Farmland Values Climb, Farm Earnings Soften*. Michigan Farm News, February 15. Retrieved from: <http://www.michiganfarmbureau.com/farmnews/transform.php?xml=20090215/farmland.xml>.

⁴⁶ Wittenberg, E. and Harsh, S. (2010) *2010 Michigan Land Values and Leasing Rates*. Report No. 641. Retrieved from: <http://www.aec.msu.edu/aecreports/2010%20MI%20Land%20Values%20&%20Leasing%20Rates%20Final%20No%20641.pdf>.

⁴⁷ Postworkshop debriefing conducted with southwestern Michigan farmers participating in MSU Extension's Farmer 101 program, 2005-2009.

4. Access to Markets

Markets and market access refer to both the customer demand and the market environment. Agriculture is changing in Michigan, and farmers need to keep apprised of the changes. Product marketability is particularly important in today's agriculture, because farmers need current information about new and current markets and anticipated agricultural trends, which influence the decision making of new entrants to farming.

Given that food and agriculture is the second leading industry in our state, we can and should do better – we should provide comprehensive training and technical assistance programs to facilitate entry into farming. Although Michigan lacks coordinated, comprehensive support for new farmers, several current efforts could certainly provide starting points for a network that could provide such support.

MODELS TO BUILD ON

The Michigan State University Student Organic Farm offers an Organic Farmer Training Program with nine months of intensive instruction in year-round organic vegetable, flower, fruit and herb production and local marketing. Students manage all aspects of a 10-acre certified organic farm, including several hoophouses. Hands-on training and practice, workshops, lectures, readings and assignments build participants' understanding of organic farming principles and practices and their ability to operate a small, diversified farm. The farm also provides outreach tours and workshops on various aspects of its operations and several online courses.

Michigan Food and Farming Systems (MIFFS) provides a variety of workshops, tours and conferences designed to help new farmers, especially those from socially disadvantaged groups. Session content has included business planning for farmers, direct marketing techniques, food safety and Good Agricultural Practices at venues across much of the state. The Michigan Organic Food and Farm Alliance (MOFFA) organizes an annual Michigan Organic Conference, which serves new farmers among others. Michigan State University Extension developed and piloted "Veggies 201," a program to help vegetable gardeners scale up to enter a commercial market.

Regionally, the Michigan Land Use Institute (MLUI) has provided farmer education in northwestern lower Michigan through a series of workshops that focus on farm production and business management issues. Multiple organizations annually plan and provide the Northern Michigan Small Farm Conference as a day of education and information focused largely on smaller scale farms. The Food Systems Economic Partnership (FSEP) provides technical assistance to help southeastern Michigan farmers tap local markets including schools. The Detroit Ag Network and Edible Flint, among other groups across the state, help to develop urban gardeners and farmers.



Photo by Vicki Morrone.



Other programs across the country offer elements of the comprehensive farm viability support needed. The following are several examples:

- Coastal Enterprises, Inc. (Maine),⁴⁸ working closely with the Small Business Association's Small Business Development Centers and with Extension, offers a technical assistance program that helps farmers develop an investment quality business plan. Many of the farmers that Coastal has worked with have gone on to receive financing.
- California FarmLink (California)⁴⁹ focuses on assisting committed farmers to obtain access to land through financing programs and through creating linkages between newer farmers and farmers nearing retirement. California FarmLink bridges the assets of mainstream banks with the goals of a partner Community Development Financial Institution (CDFI) to offer low-risk lending.
- The Carrot Project (New England and New York)⁵⁰ was created to help provide capital access to farmers by raising funds, in partnership with farm support organizations, and serving as an underwriter for farm lenders. It helps initiate and service loans, serves as an intermediary for capital aggregation and builds the capacity of farmers to borrow.
- The Agriculture and Land-Based Training Association (ALBA) (California)⁵¹ operates two training and education farms where it provides training in organic farm production, marketing, record keeping, labor law, pest management and other topics to assist farm workers and limited-resource aspiring farmers launch viable farms.
- The Land Stewardship Program (Minnesota),⁵² through the Farm Beginnings program, incubates new farmers who commit to taking over dairy operations from retiring farmers or starting new farms. The Land Stewardship Program provides intensive technical assistance and non-interest-bearing loans to help these farmers get their businesses started, increase their cash flow and gain equity in their businesses by acquiring breeding stock.

Michigan could learn from the successful elements of these programs and build on the current efforts to develop comprehensive support strategies for farmers that address all four critical elements of farm viability.



⁴⁸ See <http://www.ceimaine.org/>

⁴⁹ See <http://www.californiafarmlink.org/joomla/index.php>

⁵⁰ See <http://www.thecarrotproject.org/>

⁵¹ See <http://www.albafarmers.org/>

⁵² See <http://www.landstewardshipproject.org/>

FARM VIABILITY AND DEVELOPMENT GOAL

As we look toward building a more regionally integrated food system and developing a production base in Michigan that will enable the realization of the demand-based goals of the Michigan Good Food Charter – namely, that institutions will source 20 percent of their food products from Michigan growers, producers and processors, and consumers will be able to purchase 20 percent of their food from Michigan sources – we propose the following goal:

Farmers will profitably supply 20 percent of all Michigan institutional, retailer and consumer food purchases and be able to pay fair wages to their workers.



Photo by Adam Montri.



It is important to emphasize that expanding institutional and retail markets for Michigan products is a necessary part of the viability equation for Michigan farms. Michigan's midsized farmers, especially, need stable markets to grow, just as Michigan's institutions need more midscale farmers to expand their local sourcing.

Farm profitability and fair wages for farm workers can both be measured in many ways, but for our purposes, we define profitable farms as farms where the farmer's occupation is farming, the farm operator household earns at least the Michigan median household income, and the farm has net positive cash income, as measured by the U.S. Census of Agriculture. Fair wages for farm workers are wages that are in compliance with all federal laws and enable farm worker families to meet their basic needs and receive an income above the poverty line.⁵³



⁵³ The IRS offers an agricultural employment guide that assists farmers to be in compliance with what is best for persons employed on farms: *Agricultural Employer's Tax Guide* at <http://www.irs.gov/publications/p51/index.html>.

INDICATORS

The following data types and sources can serve as indications of successful efforts to promote farm viability and development:

- Percentage of farms within each North American Industry Classification category with positive net cash farm income: U.S. Census of Agriculture (<http://www.agcensus.usda.gov/>).
- Acres of farmland preserved through the Michigan Department of Agriculture and Rural Development Farmland Preservation Program (http://www.michigan.gov/mda/0,1607,7-125-1567_1599_2558--,00.html).
- Number and growth rate of certified organic farms in Michigan as listed in the Michigan Department of Agriculture and Rural Development Organic Farm Registry (http://www.michigan.gov/mda/0,1607,7-125-1569_25516--,00.html).
- Number and growth rate of farmers' markets by county in Michigan as tracked and mapped by the Michigan Farmers' Market Association (<http://www.mifma.org/find-a-farmers-market/>).
- Number of farms producing business plans through assistance by the MSU Product Center (<http://www.productcenter.msu.edu/strategic.htm>).
- Number of beginning farmer and rancher loans disbursed in Michigan by the Farm Service Agency (USDA Farm Service Agency Budget and Performance Reports; <http://www.apfo.usda.gov/FSA/webapp?area=home&subject=fmlp&topic=bfl-er>).
- Number of farms certified by the Michigan Agriculture Environmental Assurance Program (MAEAP) (http://www.michigan.gov/mda/0,1607,7-125-1567_1599_25432--,00.html).
- Number and growth rate of CSA operations as listed on the Local Harvest Web site (<http://www.localharvest.org/>).
- Number of agriculture-based regional skills and sector alliances formed with the support of DELEG (<http://www.michigan.gov/rsa/0,1607,7-210-47259--,00.html>).
- Number of farmers receiving farmer training through regional programs such as "Get Farming" (MLUI, CRAFT, MSU Extension, FSEP Business Innovation Program annual reports).





AGENDA PRIORITIES

1. Direct state agencies to maximize capital access through state-sponsored programs that provide farm financing.

Lack of access to capital is often the chief obstacle to starting or expanding a farm. According to several farm development programs – including California FarmLink, the Minnesota Land Stewardship Program and the Intervale Center in Vermont – increasing numbers of new and first-generation farmers choose to maximize credit card debt rather than approach financial institutions such as the USDA Farm Service Agency or Farm Credit Services. Many new farmers have little equity in their businesses or may have no assets at all. Some believe they will be turned down for loans and do not want to go through what might be perceived as an onerous process. Others have not received help in preparing business plans. For reasons such as these, new and promising farmers face undercapitalized startups that present performance challenges and missed market opportunities. State agencies could expand capital access for new farmers in several ways.

Implementation:

Agriculture Individual Development Accounts

We can establish an Agriculture Individual Development Account (AgIDA) Trust Fund to be endowed by philanthropic and public funds and subsequently self-funded through application fees and interest on the initial endowment. A \$2 million endowment that generated 3 to 4 percent annually would generate up to \$80,000; a portion would remain in the endowment and a portion would be used to leverage an equal amount of money from the federal Department of Health and Human Services Assets for Independence program. This AgIDA Trust Fund would assist beginning and limited-resource farmers to acquire collateral for farm loans by matching their personal savings on a 2:1 basis with endowment funds and federal dollars. If the Agriculture IDAs were linked to a beginning farmer loan fund, additional dollars to support the endowment could come through application fees.

We should also integrate Agriculture IDAs with farm business planning trainings offered across the state. The C.S. Mott Group for Sustainable Food Systems at MSU and lending institutions that offer a range of financial services to beginning farmers should convene philanthropic entities, policymakers and representatives of beginning farmer programs to discuss the inclusion of Agriculture IDAs as part of the continuum of capital availability for startup and limited resource farmers. The successful Agriculture IDA program piloted in southwestern Michigan could serve as the model for regional expansion.



Photo by Vicki Morrone.



Beginning farmer loan fund

We can create a Michigan beginning farmer loan fund through bond sales. Once established, the program would be self-funded with borrower application and closing fees. Beginning farmers with a net worth less than \$500,000 would be eligible. Loans could be made through local lending entities that apply for the funds and demonstrate capacity to loan to beginning farmers.

Loan guarantees

We can encourage more banks to lend to new and beginning farmers by using the Michigan Economic Development Corporation (MEDC) Capital Access Program (CAP) to partially underwrite their loans. We can expand the number of banks and credit unions that are able to apply for the agriculture CAP by assisting them to develop a plan for lending to new and beginning farmers. As part of this strategy, we could expand the MEDC Angel Investment tool to include agricultural production and related businesses.

Many financial institutions use lending metrics based on the scale and type of production with which they are most familiar – large-scale commodity agriculture. Therefore, one problem is the extent to which they understand diversified, smaller scale and more direct market farming so that capital availability can be tailored appropriately. Informational presentations on small scale farm startup and expansion tailored to financial institutions should be offered within Michigan regions where this type of agriculture is growing most rapidly or has the greatest potential. Components of these presentations should include producer and grower models by sector, market potential, supportive USDA programs, models of successful beginning farmer and land access programs, financial pro forma templates offered to farmers, and examples of capital tools that could accommodate smaller scale, diversified, product focused farm operations.

Farm financial planning

The Michigan Department of Agriculture could set aside a portion of Michigan’s 2011 (and subsequent years) specialty crop block grant funds to support small-scale farmers with whole-farm financial planning. Small-scale farmers, a growth sector in Michigan, lack tools to collect data on their production costs and market potential. Commercial lenders cite this information as the most critical indicator of loan repayment capacity. The ultimate goal is to develop tools that many Michigan farmers can utilize for financial planning, thereby increasing the availability of loan capital into this developing sector.

Implementation Timeline

2012

- Loan advisory committee, review committee and technical assistance/capital dissemination plan in place for MEDC/DELEG farmer loan fund.
- Institutional demand identified to determine volume and return on loan fund.
- Loan tracking and evaluation methods in place.

2015

- At least one financial institution within each Michigan state planning and development region identified as an agriculture lender (14 across the state).
- A statewide Agriculture Individual Development Account Trust Fund established with criteria for dissemination.

2020

- A statewide system for providing integrated technical assistance, business planning and access to capital in place.

2. Review and seek appropriate revisions to state and local land use policies to promote farmland preservation and a blend of protection with farm viability programs.

Michigan's farmland is critical to our food future. Potential growth in food and agriculture will depend on our ability to protect it from development and make it affordable to farmers, and protect current farmers' assets. Strategies to better protect farmland include:

- Introducing Public Act 116 lien recapture legislation as an incentive to farmers to pay back their liens. There are currently \$12.8 million in outstanding P.A. 116 liens stemming from property that was previously enrolled in a tax credit program under P.A. 116 that has since been converted from farmland so prior tax credits must be repaid. Legislation could be introduced to provide discounts for lien repayments, and the repayment money could be targeted toward the State Agriculture Preservation Program for farmland preservation.
- Widening options to raise funds for farmland preservation by amending state law to enable local real estate transfer taxes.
- Targeting farmland preservation on the basis of highest vulnerability to development and local government partnerships and plans for maintaining agricultural viability.

Implementation

There are examples of farmer development program partnerships between land conservancies and farmer development programs in Michigan. Farmland protection is economically viable if farmers will either lease or purchase that land, as has been seen in Leelanau and Washtenaw counties. These examples can serve as models.

Additionally, a centralized database for farm succession should be maintained. The Michigan Farm Bureau and the Michigan Land Use Institute have some information but not at the scale that could actively promote and connect farmers for farm transfers. Several states in the Midwest are using farm succession statewide surveying to ascertain the extent to which farmers will be retiring and to identify those interested in working with farm development programs to act as mentors or lease-to-ownership participants. Survey information guides educational and farm ownership program strategies. Support for the establishment and maintenance of an active database of farmers interested in transition to non-heirs and newer farmers interested in leasing/purchasing land could be part of the resource base available to programs developing more comprehensive services to accommodate transfer of farmland to first-generation farmers or current farmers needing more land.



Photo by Russ Lewis.



Implementation Timeline

2012

- Michigan farm succession study completed.
- Plans in place for Michigan farm transition education and training program that incorporates farmland preservation and farm startup programs for beginning farmers.
- Recommendations for farmland preservation outlined in the 2006 Michigan Land Use Study implemented.⁵⁴

2015

- Farm transition program anchored and maintained in statewide organization.
- Farm succession programs and maintained farm-linking base in place.

2020

- Michigan farmland most vulnerable to development has measured improvement due to strengthened zoning ordinances, increased funding for the purchase of development rights to farmland and innovative regional marketing techniques that improve farm product marketability.



⁵⁴Adelaja, S., Lake, M.B., Colunga-Garcia, M., Hamm, M., Bingen, J., Gage, S. and Heller, M. (2006) Acreage and Funding Goals for Farmland Preservation in Michigan: Targeting Resiliency, Diversity and Flexibility. Michigan State University Land Policy Institute Report # 2006-1. Retrieved from: http://www.landpolicy.msu.edu/modules.php?name=Pages&sp_id=292#2006.

3. Set targets for state-funded institutions to procure Michigan-grown, sustainably produced products.

To be profitable, farms need responsive and accessible markets. Schools, correctional facilities, hospitals and other publicly funded institutions serving food present underrealized markets that statewide targets could catalyze for Michigan farmers and producers. These targets could be set to align with the goal of sourcing 20 percent of food products from Michigan growers and producers by 2020. To the extent possible, these targets should give preference to small- and medium-scale farms using sustainable practices (e.g. verified by the Michigan Agriculture Environmental Assurance Program) to grow healthy products. Institutions should explore the potential to utilize grower agreements to encourage local farmers to produce the types of food they need and to minimize farmers' risk in transitioning to new markets.

Such preferences for small- and medium-scale farms would not be without precedent. The 2009 Washington State Legislature funded the Washington State Department of Agriculture to identify the strengths, weaknesses, opportunities and threats to agriculture and make recommendations back to the legislature that would keep farming in Washington competitive and profitable. One of the recommendations was to revamp the state's food system to revitalize Washington's small-farm sector, shift Washington's large-scale farm sector toward increased service of the domestic market, and reduce any negative environmental, economic and social impacts.⁵⁵

In the past five years, several states – such as Illinois, Wisconsin and Vermont – have passed legislation designed to improve their state economic climate through initiatives for institutional procurement of local food. Each state's legislative language has provided a benchmark from which to measure change. Michigan can learn from the efforts of these other states.

Implementation

The Michigan Department of Agriculture and Rural Development could set aside a portion of Michigan's 2011 (and subsequent years) USDA specialty crop block grant funds to support a market analysis of institutional demand for Michigan specialty crop products. This information could then be used to assess potential capital needs for specialty crop farmers to scale up to meet this demand. This market analysis would complement Department of Energy, Labor and Economic Growth (DELEG) investment in statewide agriculture sector skills alliance efforts to create and retain farm businesses and food-system-centered jobs and careers.

Assure access to environmental stewardship practices

Assure that farmers at all scales and with all production types have fair access to MAEAP and NRCS programs that educate about environmental awareness and provide financial assistance for more sustainable farming practices that lead to enhanced soil and water quality. To achieve this goal, we could invite MAEAP educators to present to beginner farmers and market farmers throughout Michigan.

⁵⁵ Washington State Department of Agriculture. (2009) *The Future of Farming: Strategic Plan for Washington Agriculture, 2020 and Beyond*. Retrieved from: <http://agr.wa.gov/FoF/>.



Implementation Timeline

2012

- Existing Michigan Agriculture Alliances submit performance objectives for increasing local product to meet regional demand.
- Purchases of Michigan-grown foods at Michigan institutions – including K-12 schools, colleges, universities, hospitals and correctional facilities – are increased to 5 percent of their total food purchases.

2015

- Every Michigan regional planning district incorporates regional procurement of farm products in its comprehensive economic development strategy report.
- Purchases of Michigan-grown foods at Michigan institutions – including K-12 schools, colleges, universities, hospitals and correctional facilities – are increased to 10 percent of their total food purchases.

2020

- Purchases of Michigan-grown foods at Michigan institutions – including K-12 schools, colleges, universities, hospitals and correctional facilities – are increased to 20 percent of their total food purchases.
- Small- to mid-scale farms actively producing for regionally based buyers generate on-farm income and are able to hire at least one employee outside the family.



4. Ensure that all state and higher education, business, workforce and economic development programs include farming and agriculture in their target audiences for programmatic development, training, investment and technical assistance.

Strategies to make farming more accessible to new entrants are essential to respond to opportunities for a green economy and to replace our aging farmer population. Farm workers, immigrant and refugee populations, and other potential new farmers could benefit from this support.

Implementation

Regional alliances

Green sector and regional skills alliance funds in the Department of Energy, Labor and Economic Growth (DELEG) could be used to create a new statewide sustainable agriculture sector alliance focused on career opportunities in food and farming. It would include regional alliances of farmers and other supply chain employers.

Alliances provide guidance and support for strategic development of education and training that lead to higher education degrees, vocational certifications and direct job growth through entrepreneurship and job creation in the agriculture sector. Education and training curricula should be based on regional food system assessments and provide a purposeful fusion of assets essential for farm viability and partners throughout the industry to help farmers develop assets. Made up of representatives of the industry sector, alliances connect economic wherewithal with relevant, accessible educational and training resources for entrepreneurs and workers in order to develop viable businesses, wages people can live on, and high employee and entrepreneur retention rates.

Farm apprenticeships

A portion of DELEG workforce development funds could support paid farm apprenticeship programs created by regional alliances. These apprenticeships could be coupled to programs at Michigan State University (MSU) to link academic training and practical experience.

Expanded farmer training programs

With support from MEDC and DELEG, MSU could partner with other organizations to expand its successful Organic Farming Training Program to offer a comprehensive beginning farmer program to new farming entrants from a range of backgrounds across the state.

No Michigan higher educational institution has developed an academic program that teaches students agricultural business enterprise development, including production, marketing and management as well as farm business planning, production cost analysis, identifying current farm business owners amenable to business agreements for land lease or transfer, drawing up legal partnership agreements, using low interest loans and other state and federal agency programs, and having a mentor to work through enterprise development based on the type of product. However, Northwest Michigan Community College is creating curriculum that aligns with regional workforce development strategies for farm enterprise development and other career opportunities/jobs within a more regionalized food system. As this work progresses, other educational institutions should examine opportunities to adapt and replicate this curriculum.

Research on season extension

MSU research and outreach could increase efforts to address Michigan's seasonal limitations through projects on topics such as season extension for intensive crop production in unheated passive solar greenhouses, and explore and promote urban farming opportunities. U.S. Department of Labor State Energy Sector Partnership and Training Grant funds could be used to support the expansion of year-round farming and explore opportunities for developing biobased materials for use in manufacturing season-extension structures.



Michigan-based studies on season extension using hoophouses suggest a number of implications. First, given their broad potential benefits, current outreach efforts from the MSU Department of Horticulture need to be expanded. Learning networks and mentorships among current and prospective farmers with hoophouses would help expand knowledge and address the learning curve that many farmers experience.⁵⁶ Ongoing efforts to understand and bolster local and direct markets will have mutually reinforcing benefits for hoophouse farmers. Efforts to familiarize lenders with hoophouses would likely help decrease uncertainty risk in lenders' eyes and increase willingness to lend. Programs could be established to provide low-interest or interest-free loans to farmers buying hoophouses in exchange for arrangements to supply low-income and food-insecure areas at subsidized prices. Given hoophouses' success in urban, rural and suburban agricultural settings, zoning laws need to be reformed to facilitate their establishment in these diverse settings.

Emerging markets

State agencies, MSU and farmer organizations should encourage Michigan producers to seek out and supply emerging markets at state and regional levels. Two of these markets provide particularly great opportunities: certified organic production and pasture-based animal products. MSU Extension, MSU AgBioResearch and appropriate state agencies – Michigan Department of Agriculture and Rural Development, DELEG, Department of Natural Resources and Environment and others – can help producers respond to these opportunities.

Implementation Timeline

2012

- A comprehensive training, mentoring, capital and land access program for new farm operations is developed and tested in at least five Michigan regions.
- Training, technical assistance and information on capital access for farmers to expand seasonal production are available online and through locally assembled teams.
- Michigan planning districts (Council of Governments regional districts) have received information about and technical assistance through DELEG so that they could prepare a proposal to develop an agriculture sector Skills alliance.

2015

- In regions where farming is an appreciable percentage of the economy, community colleges and/or workforce development agencies will provide access to training and other educational resources for farm entrepreneurs.
- One hundred percent of Small Business Technical Development Centers in Michigan have received information on and can inform farm entrepreneurs about state agency-based technical assistance and loan programs.
- All enrolled farmers have access to environmental stewardship actions and programs.

2020

- A rigorous apprenticeship program that enables farm apprentices to move from apprentice to ownership of viable farms is available and coordinated statewide.
- Season-extension programs, technology and capital access are readily available to all farmers who want to extend the growing season to meet regional markets.

⁵⁶ Conner, D., Montri, A., Waldman, K., Biernbaum, J., and Hamm, M. W. (2011) Hoophouse Contributions to Farm Profitability and Food System Sustainability: Lessons from Michigan. *Journal of Extension*, 49(1).

CONCLUSION

The bumper sticker mentioned at the beginning, “No farms, no food,” is clearly true. Equally true is the extension “No farmers, no farms.” We find ourselves at a critical point. Michigan has opportunities to reaffirm the importance of farms and farmers to our state – not only for the new businesses, jobs and related economic development that they produce; not only for the high quality and healthy food that they can produce, but also for the resiliency they add to the communities in which our farmers live and work. Farmers have a big stake in their communities and can’t easily take their businesses elsewhere. They are there for the long haul, so they often invest time and energy in civic affairs beyond their farming enterprise.

The priorities outlined here provide an opportunity to maintain and enhance local agricultural knowledge as the current generation of Michigan’s aging farmers moves on. The actions outlined above will make it possible for new generations of farmers to take their place and produce the good, healthy food that all Michiganders and others in the Great Lakes region need to live prosperous, healthy lives.



Photo by Vicki Morrone.



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**Michigan Food Policy
Council**

Constitution Hall
525 W. Allegan, 6th Floor
P.O. Box 30017
Lansing, MI 48909
517-335-4184
www.michigan.gov/mfpc



**The C.S. Mott Group
for Sustainable Food
Systems at MSU**

312 Natural Resources Bldg
East Lansing, MI
48824-1222
517-432-1612
www.mottgroup.msu.edu



**Food Bank Council of
Michigan**

501 North Walnut Street
Lansing, MI 48933-1126
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