

FOOD SYSTEM INFRASTRUCTURE:

MICHIGAN GOOD FOOD WORK GROUP REPORT SERIES

Report No. 5 of 5



DECEMBER 2010

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.

FOOD SYSTEM INFRASTRUCTURE WORK GROUP

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SUGGESTED CITATION

Cantrell, C. and Lewis, R. (2010). Food System Infrastructure: Michigan Good Food Work Group Report No. 5 of 5. East Lansing, MI: C.S. Mott Group for Sustainable Food Systems at Michigan State University. Available from www.michiganfood.org.

Graphic Design by: Sharon Szegedy

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TABLE OF CONTENTS

Vision	2
Current State of Affairs	2
What is Infrastructure?	3
Many Layers of Entrepreneurship	5
A New Food Era	7
Infrastructure by the Numbers	11
Food System Infrastructure Goals	14
Indicators	14
Agenda Priorities	16
2012 Agenda	16
2015 Agenda	20
2020 Agenda	22
Conclusion	24

VISION

Food System Infrastructure Report Vision

All levels of Michigan's food system are robust and responsive to good food needs, with home and neighborhood production, direct marketing, and regional supply chains fully developed and working alongside national and global supply chains.

CURRENT STATE OF AFFAIRS

The infrastructure section of the Good Food Charter addresses the particular need of agri-food entrepreneurs for reliable pathways to market. For Michigan to achieve the vision and goals of the charter, its agri-food entrepreneurs need a well-functioning food system infrastructure of processing, distribution, and other facilities and services.

If Michigan fails to address this need, it will miss a historic opportunity to grow jobs, build public health and attract business investment. Good food entrepreneurs are emerging in increasing numbers and moving to meet new, broad-based demand for healthy, green, fair and affordable food. But high risks and costs of doing so, due to wide gaps in food system infrastructure, which are a legacy of a different era, hinder this economic development.

Local and state leaders from every sector must champion a new good food direction for Michigan and provide key financial and programmatic support to agri-food entrepreneurs, including those equipment makers, distributors, value-added processors and others needed to build appropriate food system infrastructure. The financial investment needed is relatively small compared with other forms of economic development. Yet studies suggest it can generate significant returns for Michigan's 21st century economic progress.

GOOD FOOD means food that is:

Healthy

It provides nourishment and enables people to thrive.

Green

It was produced in a manner that is environmentally sustainable.

Fair

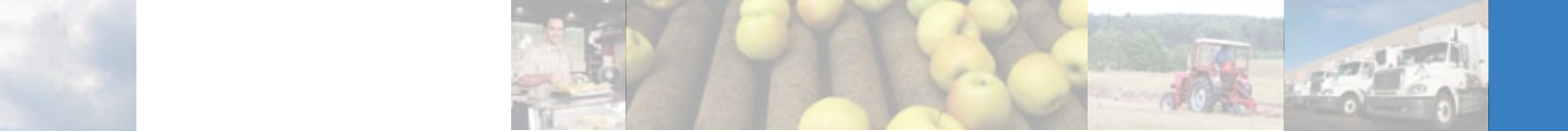
No one along the production line was exploited during its creation.

Affordable

All people have access to it.

Adapted from the W.K. Kellogg Foundation





What is Infrastructure?

Food system infrastructure covers everything needed in the supply chain of activity between the consumer and the producer, be that a farm, fishery or community garden (see Table 1). The supply chain involves such businesses and resources as seed, feed and compost suppliers; equipment repair and fabrication services; food processors; distributors; retail outlets; professional services such as logistics managers and waste handlers; surplus food rescue; and financial, workforce, civic, and land and energy resources. An inadequate food system infrastructure is like an inadequate transportation system of vehicles, roads and bridges - it is difficult to get where you want to go in food and farm markets without reliable food supply chain facilities and services.

Table 1. The World of Food System Infrastructure	
<i>Infrastructure covers everything needed for agri-food entrepreneurs to move food from the farm to the plate or to move products, such as compost and timber, from the farm and woodlot to the buyer of those materials. Agri-food supply chains involve:</i>	
Production	Inputs such as seed, feed, and harvesting services and equipment
Processing	Activities such as washing and bagging lettuce, bottling, drying and freezing food
Aggregation and Distribution	Things such as marketing cooperatives, storage facilities, brokerage services, logistics management and delivery trucks
Retailing	All those who sell or serve food to consumers, from restaurants, grocery stores and hospitals, to schools, prisons, caterers and fast-food outlets
Marketing	The effort that goes into promoting products such as billboards, coupons, advertising campaigns, packaging materials, branding and more
Capital	Four types of capital are involved: 1) Financial capital in the form of loans, investments and other financing; 2) natural capital of land, water and other ecological resources; 3) the human capital of creativity, labor and other talent, including education and training; and 4) social capital from churches, youth groups, chambers of commerce, etc.

The good food problem we face is that most of the infrastructure needed for local and regional markets, which are growing, has washed out over the years like neglected roads and bridges. We have invested instead in building a superhighway to large national and global markets for Michigan food and farm products. These investments came primarily since the 1940s, when public and industry policy began to focus on producing food that is, as one industry insider describes it, “fast, convenient and cheap,” and government and industry leaders advised farms to “get big or get out.”¹

¹ Cantrell, P. (2009) “Sysco’s Journey from Supply Chain to Value Chain: Results and Lessons Learned from the 2008 National Good Food Network/Sysco Corporation Pilot Project to Source and Sell Good Food.” Wallace Center at Winrock International. Retrieved April 15, 2010 from http://www.ngfn.org/resources/research-1/innovative-models/NGFN%20Case%20Study_Syiscos%20Journey%20From%20Supply%20Chain%20to%20Value%20Chain.pdf.

As a result, 75 percent of Michigan’s total agricultural sales come from just 6 percent of its farms; the great majority of smaller and midsized Michigan farms are not able to compete effectively in the long and consolidated national and global supply chains that have come to dominate the food system.² More than half of the state’s farms lose money every year, particularly those midsized farms that are too big for some of the smaller scale opportunities in direct marketing and too small to compete in national and global supply chains.³

Example: Schools and Potatoes

Today it is easier for a Michigan farmer to send potatoes out of state to come back home in a potato chip bag than it is to build a business selling potatoes to a school down the road.

The farm may have plenty of quality, price-competitive potatoes. The school may have strong demand for sourcing fresh farm products, a desire to support the local economy and the wherewithal to cook potatoes from scratch rather than simply open a package of processed potatoes.

Yet the lack of adequate infrastructure, such as small-scale storage, distribution and value-added processing, can stymie this potential exchange.

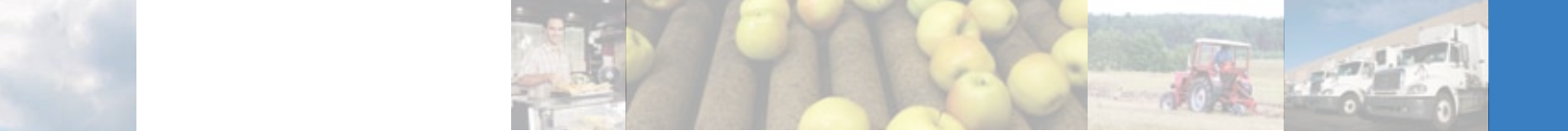


Supply chains in the large national and global markets are long, anonymous and concentrated; suppliers are interchangeable, commodities are commingled (one large-scale processing plant will wash 25 million servings of salad per week⁴), and market share is concentrated among a small number of dominant firms. To meet good food demand and need, entrepreneurs are working to build shorter supply chains with a scale of food processing and other infrastructure that matches the market, including the ability to verify who produced the food and where and how it was grown.

² U.S. Department of Agriculture. (2007) 2007 Census of Agriculture, Farms by Concentration of Market Value of Agricultural Products Sold (Table 40).

³ U.S. Department of Agriculture. (2007) 2007 Census of Agriculture, Net Cash Farm Income of Operations and Operators: 2007 and 2002 (Table 5).

⁴ Pollan, M. (2008) "Farmer in Chief." New York Times. October 12.



Many Layers of Entrepreneurship

Good food entrepreneurship ranges from new supply chain development at the home and neighborhood level to large-volume companies, such as Wal-Mart, reaching out to local producers to satisfy new demand for fresh and local foods.

To illustrate this range of entrepreneurship, we use the “Tiers of the Food System” schematic, which outlines the five tiers of the food system. Next, we discuss specific infrastructure challenges and opportunities that Michigan entrepreneurs are navigating and how policymakers can help.

HOME AND NEIGHBORHOOD

Home and neighborhood demand for healthy, green, fair, affordable food is at the heart of the good food movement, as well as the food system infrastructure now emerging to serve it.

Home and neighborhood examples include backyard gardens and chicken coops, community gardens and community kitchens, cooking and canning classes, and youth farm stands.

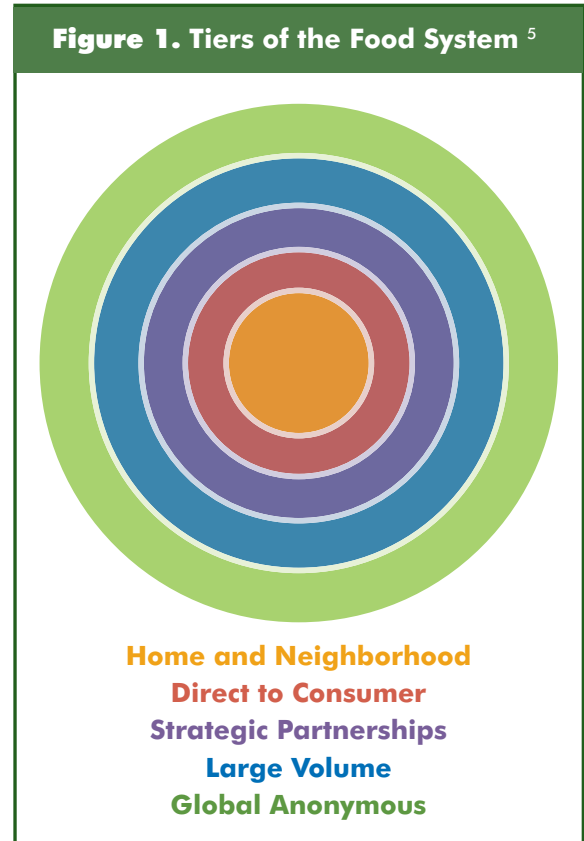
These food system developments at the home and neighborhood level are multiplying every day across the country. They reflect a take-charge approach to personal and community concerns about food nutrition, safety, and security.

DIRECT TO CONSUMER

The supply chain in the next level of the food system, direct-to-consumer, is very short - food is just one step removed from personal production, with exchanges taking place directly between the farm and the consumer.

Direct-to-consumer examples include farmers’ markets, mail order, farm stands, community-supported agriculture (CSA) and direct-store-door sales, whereby a farmer or food manufacturer delivers product directly to a store, rather than utilizing a distribution company.

Both farms and consumers have turned to direct-to-consumer markets in recent years because the larger food system has failed to deliver many products that consumers want and the profitability that small and mid-sized farms need. Direct marketing among Michigan farms increased 29 percent from 2002 to 2009. The number of Michigan farmers’ markets tripled to about 200 between 2000 and 2008. Michigan now has 85 community-supported agriculture (CSA) operations.⁶



⁵ Adapted from Jim Bower, Blue Planet Partners; Ron Doetch, Michael Fields Agricultural Institute; and Steve Stevenson, Center for Integrated Agricultural Systems, University of Wisconsin.

⁶ <http://www.csafarms.org/>



STRATEGIC PARTNERSHIPS

As demand and markets for good food grow, so do the supply chains needed to serve them beyond one-to-one direct marketing. The larger volumes of food that schools, hospitals and grocery stores purchase, for example, makes a middleman or two (broker, distributor, etc.) very useful both for the buyer and the farmer. Middlemen take a share of the sale, but that's because they can help farms and food buyers, such as restaurant chefs, save time and money.

In the emerging good food system, such intermediary businesses partner with farms, retailers and others in the supply chain to build new pathways to market. These new business relationships are based on shared values, such as the value of keeping family farms and their land healthy or the social justice value of supplying low-income neighborhoods with quality food. These relationships are especially essential for building infrastructure options (distribution, processing, etc.) where few currently exist because of our past emphasis on building a global superhighway for foods instead of sustainable regional systems. High risk and costs in markets without adequate food system infrastructure require more collaboration among businesses to bridge local and regional opportunities.

Strategic partnership examples include new local food distribution businesses in Michigan, such as Cherry Capital Foods (Traverse City) and Locavore Food Distributors (Detroit); new supply chains evolving from producer cooperatives such as the Michigan Asparagus Growers Inc. (western Michigan), Organic Valley (U.S.), Country Natural Beef (Pacific Northwest) and Shepherd's Grain (eastern Washington); and brokers and farmers working together to brand and market local products, such as Red Tomato (New England).

LARGE-VOLUME

The global consolidation of food markets begins to become clear at the large-volume level, where supply chains become much longer and opportunities narrow down to those farms and food businesses that can operate at a large, national scale. In short, the big get bigger, and the smaller businesses get out.

The 20 largest food retailers, for example, continue to take market share from other retailers; they comprised 61 percent of all U.S. grocery sales in 2005, up from 41 percent in 1995.⁷ Yet large-volume companies such as Wal-Mart and Meijer, for example, are now reaching out to local farm suppliers to meet consumer demand for local choices. Similarly, the \$35 billion food distributor Sysco has succeeded, through pilot local food efforts in Grand Rapids, Chicago and Kansas City, in offering new products and winning new customers.

Large-volume examples include Peterson Farms (Hart, Mich.), Eden Organic (Clinton, Mich.), Sysco, Gordon's Food Service, Meijer and Wal-Mart.

GLOBAL ANONYMOUS

At the global anonymous level, supply chains are very long and complex. A key characteristic is that farmers and buyers never meet. Consumers also have no information about the origin of ingredients or how many sources are commingled in the production of one hamburger, one sack of feed or one candy bar.

This scale of operation has also produced ready supplies of inexpensive food in many parts of the world. Much of Michigan's \$71 billion in agri-food economic impact is connected to the global anonymous and large-volume tiers.

Global anonymous examples include Kellogg, Gerber, ADM, Unilever, Cargill, Ajinomoto and Dean Foods.

⁷ Kaufman, P. (2007) *Strong Competition in Food Retailing Despite Consolidation*. *Amber Waves*, 5(5).



A New Food Era

The challenge that agri-food entrepreneurs located in all counties and working with all crops face is the fact that little food system infrastructure exists between the roadside-stand direct-marketing option and the large-scale global supply chain option. Not only are facilities such as small-batch processing needed to build shorter, regional supply chains, but also services from enterprises that aggregate farm products. Aggregation allows producers to combine their products to deliver the quantity and consistency that grocers, restaurants and other buyers need. It also calls for midscale washing, grading, storage, packing and similar facilities that, for the most part, no longer exist.

Yet new market opportunities are calling for just such smaller batch, quality food and farm products from Michigan, both fresh and processed, including meats and dairy products. Entrepreneurship is growing at the food system levels of home/neighborhood, direct marketing, strategic partnerships and large-volume. It's growing because demand is growing for food that comes with greater health, environmental, economic and social benefits.

It starts at the home and neighborhood level, with such projects as Benton Harbor GROWS, an effort to build a citywide network of gardens using the knowledge and skills of residents already raising some of their own food.⁸ It continues through the direct-marketing level, where restaurants and grocery stores are increasingly purchasing at the Benton Harbor Fruit Market, for example, to offer fresh and local options they cannot find elsewhere. Food system innovation and entrepreneurship are also emerging in supply chains that are longer than direct marketing, at the strategic partnership and large-volume levels, with new distributors and processors going into the local and regional food business.

Shorter regional supply chains are emerging and possible because times have changed, as explained in a 2006 report from the Land Policy Institute at Michigan State University on farmland preservation priorities for the state: "Agriculture is no longer the simple commodity industry it was long ago, when the only avenue for farmer success was increasing productivity and yield. The farmer does not have to be a price taker and can take advantage of unique market opportunities."⁹ Similarly, the international food industry think tank, the Hale Group, explains: "The food marketplace has shifted from a supply-driven to a demand-driven environment."¹⁰

In this new environment, consumer and community demand for healthy, green, fair and affordable food is stimulating entrepreneurship across Michigan's agri-food sector. More and more farms and related food businesses are now working their way to new customers at nearby schools, grocery stores and hospitals as food demand and needs shift.

Some Examples

- New local and regional distributors, such as Locavore Food Distributors in southeastern Michigan, are starting businesses and opening new market channels for Michigan farms, such as Locavore's recent sales to Chicago Public Schools.¹¹
- Urban gardeners are selling at farmers' markets and supplying restaurants in Detroit under a common "Grown in Detroit" label.¹²

⁸ Bedford, C. (2010) *Benton Harbor Grows: Food, Poverty and Community Resilience*. *Solutions*, 1(2), 49-53. Retrieved May 10, 2010 from <http://thesolutionsjournal.com/node/600>.

⁹ Adelaja, S. et al. (2006) "Acreage and Funding Goals for Farmland Preservation in Michigan." *Land Policy Institute paper 2006-1*, Michigan State University, p. 23.

¹⁰ Ludwig, R. and Sisson, K. (2010) "Can the World Feed Future Generations?" *AgroStrategies*. Retrieved April 14, 2010 from <http://www.halegroup.com/phpwcmms/download.php?f=f8815f70a7b975d4d8658bbc6b6fad00>.

¹¹ National Good Food Network. (2009) "Growing: The Supply Chain from Michigan Farms to Chicago Schools." *National Good Food Network newsletter*, December issue. Retrieved April 17, 2010 from <http://www.ngfn.org/resources/networknews/december-2009#growing-the-supply-chain>.

¹² Cantrell, P. (2008) "See the Local Difference: Regional Food Systems Become Essential Ingredient for Michigan's Future." *Michigan Land Use Institute*. Retrieved April 17, 2010 from <http://www.mlui.org/downloads/SeetheLocalDifference.pdf>.

Some Examples

- Michigan asparagus farmers are earning more money by selling more of their crop to fresh markets after nearly going under in recent years when imports from Peru flooded the market for asparagus sold for canned, frozen and other processed products. Michigan's asparagus growers formed a cooperative focused on the fresh market opportunity, and other entrepreneurs invested in the packing lines necessary for the shorter supply chain to work.¹³
- Recognizing a market opportunity, the Triple D fruit processing company near Traverse City recently renovated its space to accommodate entrepreneurs with products that are too small in volume for most food processing companies and too large in volume for shared-use licensed kitchens.
- The major food service distributor Sysco recently completed a two-year local foods pilot effort at its Grand Rapids hub. The regional office worked to carry and promote more sustainably produced fruits and vegetables from environmentally certified Michigan farms. Managers attribute the hub's ability to increase sales and gain customers, during a time when overall produce sales were down because of the recession and poor weather, to this local and sustainable focus. Among a number of key outcomes, the Grand Rapids hub was able to offer 12 varieties of apples to customers because local producers enabled the company to move beyond the two varieties, Red and Golden Delicious, that it typically offered.¹⁴

THE ROLE OF PUBLIC POLICY

The free market is moving to fix the roads and bridges that have washed out in local and regional markets. Michigan can support this market-led correction with public recognition and sustained support of these food system entrepreneurs who face high risk and high costs because of wide gaps in food system infrastructure.

In an article on global agri-food development, the Hale Group points to an important public sector role in bridging infrastructure gaps: "The key to sustainability is private sector investment. But first, public sector investment that reduces risk and creates an environment for reasonable rates of return is needed in the short and medium-term to facilitate the entry and profitability of business ventures."¹⁵

Michigan has the potential to stimulate its 21st century economy by making a commitment to agri-food entrepreneurs and building a comprehensive support system for them. This is the conclusion of MSU Strategic Marketing Institute researchers in a 2006 report that documents the total economic impact of Michigan's agri-food sector.¹⁶ Recent updates to this report put the sector's total impact at \$71 billion per year, making it arguably the state's largest industry.

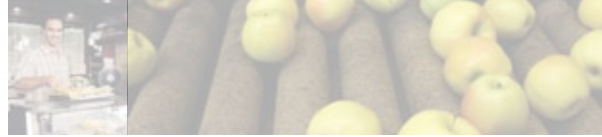
Future growth projections in the report, "The Economic Impact and Potential of Michigan's Agri-Food System," are based on the experience of the MSU Product Center for Agriculture and Natural Resources as a provider of technical support to agri-food entrepreneurs. By supporting these entrepreneurs in a more committed and comprehensive way, the MSU Strategic Marketing Institute projects that Michigan could increase its rate of venture establishment in the agri-food sector (firms with at least one employee after one year).

¹³ Cantrell, P. (2005) "Michigan's Newly Profitable Asparagus Alley." *Great Lakes Bulletin News Service*, May 22. Retrieved April 17, 2010 from <http://www.mlui.org/farms/fullarticle.asp?fileid=16870>.

¹⁴ Cantrell, P. (2009) "Sysco's Journey from Supply Chain to Value Chain: Results and Lessons Learned from the 2008 National Good Food Network/Sysco Corporation Pilot Project to Source and Sell Good Food." *Wallace Center at Winrock International*. Retrieved April 15, 2010 from http://www.ngfn.org/resources/research-1/innovative-models/NGFN%20Case%20Study_Syscos%20Journey%20From%20Supply%20Chain%20to%20Value%20Chain.pdf.

¹⁵ Ludwig, R. and Sisson, K. (2010) "Can the World Feed Future Generations?" *AgroStrategies*. Retrieved April 14, 2010 from <http://www.halegroup.com/phpwcmms/download.php?f=f8815f70a7b975d4d8658bbc6b6fad00>.

¹⁶ Peterson, H.C., Knudson, W.A., Abate, G. (2006) "The Economic Impact and Potential of Michigan's Agri-Food System, Strategic Marketing Institute Working Paper." *The Product Center at Michigan State University*, No. 1-1606, January. Retrieved from <http://www.productcenter.msu.edu/documents/Working/Economic%20Impact%20of%20Michigan%20Agri-Food%20Final%20010906.pdf>.



MORE JOBS FOR MICHIGAN'S INVESTMENT DOLLARS

The report states that, if Michigan's agri-food sector simply matched the rate of venture establishment in other economic sectors, the state could generate more than 23,000 new jobs per year, including both direct and indirect employment effects.¹⁷ The report notes that nearly half of the jobs could come through relatively small capital investments in small businesses.

When direct and indirect effects are included, the small ventures would generate one job for every \$5,714 of capital investment; whereas the large scale agri-food businesses analyzed would generate one job for every \$59,537 of capital investment.^{18, 19} Furthermore, it's important to note that small businesses do not necessarily remain small over their lifespan; many may start small but grow to become a significant employer in their community.

Neither this report's authors nor the members of the infrastructure work group suggest that small businesses should be Michigan's only concern or goal. Yet the return on investment is remarkably high for the small-scale ventures, which represent 90 percent of the total number of venture establishments that the report projects is possible with increased state commitment and support.

A consumer orientation is key, according to the report: "Fundamental to future success in the agri-food system will be the ability of businesses to innovate and to fully grasp contemporary consumption patterns, their driving forces and growth opportunities. In this regard, small-scale agri-food entrepreneurial ventures that can adapt their ideas, technologies and resources to the ever-changing consumer wants, needs and perceptions will play a significant role in promoting Michigan's economy. The experience of the MSU Product Center shows that potential ventures in this area are very diverse and consist of businesses involved in a wide range of niche products and services including agri-tourism."²⁰

One recent study of Midwest sales potential for farms in six states points to promising economic development results in fresh produce marketing.²¹ The study examined two scenarios: the effect of Michigan fruit and vegetable farmers supplying the state's in-season demand for 28 common produce items that grow here, and the effect of farms near metropolitan areas with population of 250,000 or more supplying the cities' in-season produce consumption.

Under the first scenario, Michigan could generate 4,448 farm and farm-related retail jobs. This job total is six times greater than the number of jobs that the same amount of land - 75,000 acres - generates from highly subsidized corn and soybean production. Under the second scenario, Michigan could generate 3,262 farm and farm-related retail jobs from just 57,000 acres, compared with 548 jobs in corn and soybean production on the same amount of land.



¹⁷ Ibid.

¹⁸ Ibid. See Exhibit 4, Scenario B, page 41.

¹⁹ Note: The peer-job investment figures are total capital investment divided by total jobs.

²⁰ Peterson, H.C., Knudson, W.A., Abate, G. (2006) "The Economic Impact and Potential of Michigan's Agri-Food System, Strategic Marketing Institute Working Paper." The Product Center at Michigan State University, No. 1-1606, January., p.36. <http://www.productcenter.msu.edu/documents/Working/Economic%20Impact%20of%20Michigan%20Agri-Food%20Final%20010906.pdf>.

²¹ Swenson, D. (2010) "Selected Measures of the Economic Values of Increased Fruit and Vegetable Production and Consumption in the Upper Midwest." R. Pirog and M. Adams (Ed.s). Leopold Center for Sustainable Agriculture, Iowa State University. Retrieved April 15, 2010 from http://www.leopold.iastate.edu/research/marketing_files/midwest.html.

CREATING HEALTHY COMMUNITIES

Food and new jobs are only a few of the important outcomes of supporting new food system infrastructure for the state's new agri-food entrepreneurs. Michigan also gains land, water and habitat conservation when ecologically sensitive farms can compete. The state gains recreational opportunities and tourism attractions, too, when farms on the urban edge and beyond are in place to offer unique products and valuable experiences.

Developing the appropriate-scale infrastructure needed to supply fresh and processed foods from Michigan's mostly small and mid-sized farms can further help the state repurpose underutilized manufacturing capacity and employ skilled workers in food processing, equipment fabrication, engineering analysis and other food system infrastructure activities.

Michigan also is in better position to win new business investment when good food and strong farms help define it as a quality place to live. Economic success today is much more dependent on the health of people, communities and the environment than it was when abundant resources, such as low-cost oil, fueled our 20th century industrial expansion.

In a tightening, post-Baby Boom labor market with a premium on knowledge workers, today's businesses are beginning to locate where people want to live rather than where firms might enjoy the lowest labor costs or the least stringent regulations.²² Good food business and infrastructure development is an underrecognized but key component of the place-making strategies that Michigan's economic development leaders are adopting to build the state's global competitiveness.

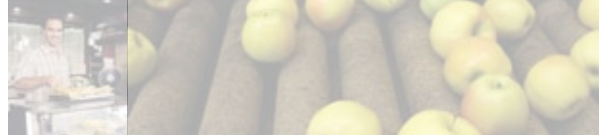
Finally, good food entrepreneurship can contribute significantly to Michigan's economic resilience in the face of declining oil supplies and rising climate instability. Agriculture has become the second largest user of fossil fuel after automobiles.²³ In voting for sustainable agriculture with their food demand and purchases, Michigan residents are also voting for a system of agriculture that has the potential to begin weaning the food system from scarce resources upon which we can no longer rely.



Photo courtesy of MSU Student Organic Farm.

²² Adeloja, S. et al. (2009) "Chasing the Past or Investing in Our Future: Placemaking for Prosperity in the New Economy." Land Policy Institute, Michigan State University. Retrieved March 29, 2010 from www.landpolicy.msu.edu/ChasingthePastReport.

²³ Pollan, M. (2008) "Farmer in Chief." New York Times. October 12.



Infrastructure by the Numbers

"Michigan County and Region Food and Agricultural Systems Profiles," produced in 2009 and available from the Michigan Department of Agriculture, provides the most comprehensive list of current processing, warehousing and other food system infrastructure, along with production data highlights.²⁴ But information on the change over time in Michigan's food system infrastructure, such as the number and type of food processing facilities, is limited.

The time span and many variables involved make it difficult to collect and categorize data across the spectrum of food system infrastructure. Facilities and services range from feed stores, large animal veterinarians and seed cleaners to loan officers who handle farming financial needs and grocers who serve stressed urban and rural areas.

It's clear from the record of experiences among farms and other agri-food firms that, as producers leave the industry (Michigan lost half of its farms between 1960 and 2002^{25,26}), so do the facilities and services that make up the food system infrastructure. With this infrastructure go the linkages needed to keep food supply chains functioning.

In a 2009 survey of 14 Michigan financial institutions, loan funds and public entities, for example, the C.S. Mott Group for Sustainable Food Systems at Michigan State University found that agricultural lending was a dying function at banks. At least two of the four bank loan officers that continue to offer agriculture loan products voiced concern in the survey about the level of attention that agriculture might receive from their banks once they retired.²⁷ Yet the number of farms in Michigan increased 5 percent from 2002 to 2007 - that's an increase of 2,700 farms.²⁸ Among this number are many small farms entering relatively unconventional local and regional markets for food with good food attributes. Not only do these new farmers find few bankers who work in agriculture, but the report also found that they find practically none who are familiar with these emerging market opportunities and changing agri-food business models.

Much of the shift in food system infrastructure occurred in the 1970s, a watershed period between a more local and regional food system in the United States and the current national and global-scale system. Overall, as in other industries, the agri-food sector has experienced significant consolidation since that time, with a few companies controlling many links in their supply chains through vertical and horizontal integration.

This concentration has narrowed market access for producers and severely limited the viability of independent processors and other food system infrastructure businesses. In the seed corn sector, for example, two companies, DuPont/Pioneer and Monsanto, control 58 percent of the market.²⁹

Michigan's situation with meat and poultry processing is illustrative. In a 2007 assessment of the feasibility of a new processing plant in northern Michigan, the MSU Strategic Marketing Institute identified a Catch-22 situation.³⁰ The authors explain: "There are not sufficient numbers of animals to support a processing plant and producers may not be willing to expand livestock production unless there is access to a processor."

²⁴ Michigan Department of Agriculture. (2009) *Michigan County and Region Food and Agricultural Systems Profiles*. Retrieved April, 15, 2010 from <http://www.michigan.gov/mda/0,1607,7-125-1568-220573--,00.html>.

²⁵ U.S. Department of Agriculture. (1964) "Number of Farms and Land in Farms." Retrieved April 17, 2010 from <http://usda.mannlib.cornell.edu/usda/nass/NumbFarmLa/1960s/1964/NumbFarmLa-01-17-1964.pdf>.

²⁶ U.S. Department of Agriculture. (2007) *2007 Census of Agriculture, Historical Highlights: 2007 and Earlier Census Years (Table 1)*. Retrieved April 17, 2010 from http://www.agcensus.usda.gov/Publications/2007/Full_Report/Volume_1,_Chapter_1_State_Level/Michigan/st26_1_001_001.pdf.

²⁷ Cocciarelli, S. (2009) "Financing Michigan's Sustainable Agriculture: The Availability and Accessibility of Capital for Beginning Farmers." C.S. Mott Group for Sustainable Food Systems, Michigan State University.

²⁸ U.S. Department of Agriculture. (2007) *2007 Census of Agriculture, Historical Highlights: 2007 and Earlier Census Years (Table 1)*. Retrieved April 17, 2010 from http://www.agcensus.usda.gov/Publications/2007/Full_Report/Volume_1,_Chapter_1_State_Level/Michigan/st26_1_001_001.pdf.

²⁹ Hendrickson, M. and Heffernan, W. (2007) "Concentration of Agricultural Markets." Department of Rural Sociology, University of Missouri, Columbia, Mo. Retrieved from <http://www.foodcircles.missouri.edu/07contable.pdf>

³⁰ Knudson, W. and Peterson, C. (2007) "A Feasibility Assessment of a Meat Slaughtering/Processing Plant or Feedlot in Northern Michigan." Product Center at Michigan State University, The Strategic Marketing Institute Working Paper. Retrieved April 14, 2010 from http://www.michigan.gov/documents/mda/MDA_msu_feedlot_feasibility_184592_7.pdf



Photo by Patty Cantrell.

The report goes on to examine the feasibility of a state-of-the-art processing plant and feedlot that would presumably attempt to compete in the same national and global supply chain for meat in which four firms -Tyson, Cargill, Swift and National Beef Packing - have a combined 84 percent share of the beef packing sector. The report's conclusion is predictable: not feasible.

Yet the report highlighted niche market opportunities for livestock producers in the region and Michigan. Rather than go head-to-head with Tyson chicken or Cargill beef in the supermarket, Michigan meat producers can build businesses on the basis of a completely different product - locally raised, humanely produced, free of added growth hormones, etc. They also have a growing list of customers for meat with such attributes. According to the Michigan affiliate of the international organization Health Care without Harm, one potential major customer is Northern Michigan Hospital, which is now taking steps to find and purchase local, sustainably raised meats.³¹ Among such consumers' concerns are treacherous working conditions in major meat processing facilities and exploitation of vulnerable immigrant populations.

Connecting producers and consumers of such meat products will require new food system infrastructure suited to comparatively short regional supply chains, not the kind of facilities or business models typical in national and global supply chains.

Mobile meat processing units, for example, are cost-saving options that some livestock producers and processing entrepreneurs are using to meet market demand for federally inspected retail cuts of meat.³² Similarly, the global supply chain business model of

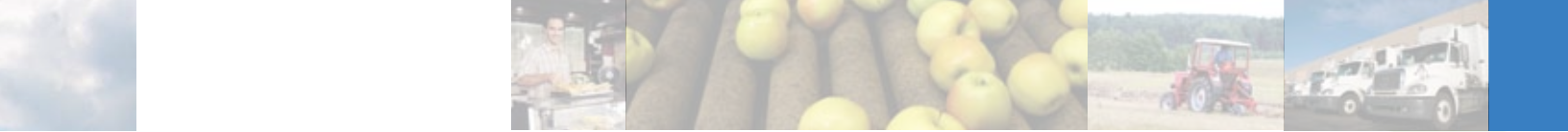
interchangeable beef producers is not suitable. New business models based on good food values are emerging in Michigan and across the country, called values-based food supply chains or food value chains.³³ In food value chains, producers and processors often work together to access or develop production standards and marketing brands, as well as aggregation, processing and distribution services.

Just as entrepreneurs are getting creative in their approach to food system infrastructure, so, too, must local and state leaders step outside of conventional economic development boxes to understand and seize good food opportunities.

³¹ Personal Communication. (April 2010) Hillary Bisnett, Healthy Food in Health Care Coordinator, Ecology Center, Ann Arbor, Mich.

³² See <http://www.nichemeatprocessing.org/>

³³ For further information see www.agofthemiddle.org and www.ngfn.org.



Strategies for Developing Food System Infrastructure

Bridging wide gaps in food system infrastructure for good food entrepreneurs, both social and private, and working from small-scale to large-scale, will require focused attention on building a more conducive business environment, as well as the businesses and services themselves. We group this needed support and attention in four main strategies:

1. *Communication and networking:*

Facilitate interaction of buyers, sellers and others in new, shorter supply chains, which require more communication and collaboration than conventional, long-distance supply chains, where food producers and food buyers rarely meet. Entrepreneurs need a collaborative and supportive business environment to innovate and flourish, including a community of peers and clusters of related businesses to work with. This is how Detroit's Eastern Market, for example, originated and how it continues to operate as a hub of value-added activity. Not only do shoppers and farmers get to know one another, but small-scale retail and food processing businesses located nearby also work with the farmers and one another to develop products and pursue market opportunities.

2. *Equipment and facilities:*

Target business incentives and investment at the new sizes and types of equipment, facilities and services that regional supply chains require to fit their midscale volumes and more identity-preserved products. For a farm to put its name on its value-added product after processing, for example, it must segregate its product through the entire process. Most of Michigan's large-scale processors are not able to accommodate this; their business model is based on mixing products from many farms together. At the same time, most farms cannot afford to set up needed storage, processing and other equipment and facilities on their own. In addition, the new scale and type of equipment they need is often not yet available in the marketplace.

3. *Information and technical assistance:*

Provide relevant research and other assistance that entrepreneurs need to best navigate emerging good food markets that is not yet available from local and state agencies tasked with business development. Southwestern Michigan's bedding plant industry, for example, has 32 million square feet of greenhouse space sitting mostly idle in the winter. Many growers are interested in adding a winter produce crop for regional markets, but they lack sufficient market data, production research and branding expertise.

4. *Regulation:*

Reform regulatory approaches to match the level of oversight with the level of relative risk. Small farmers with products ranging from strawberries to squash now face food safety audits that commonly cost \$1,000 for each crop. Without reform, costly and confusing food safety rules can prevent farms from serving local and regional good food markets.

FOOD SYSTEM INFRASTRUCTURE GOALS

The food system infrastructure work group goal is for Michigan's agri-food sector to generate new agri-food businesses at a rate that enables 20 percent of the food bought, sold and grown in Michigan to come from and stay in Michigan.

Michigan can achieve this 2020 goal by focusing on an interim goal of achieving by 2015 the same rate of agri-food business startup success, or establishment "births,"³⁴ as the economy as a whole. According to projections from the Michigan State University Strategic Marketing Institute, that annual rate would equal 851 agri-food startups that employ at least one person after one year. Achieving this higher rate of agri-food startup success would generate more than 23,000 new jobs per year in Michigan.

We propose that a significant number would be involved in responding to good food market demands, including distribution, processing and other business types that are fundamental to developing needed food system infrastructure. Accomplishing this agri-food venture establishment rate, therefore, could also help bridge infrastructure gaps needed to reach the Michigan Good Food Charter institutional food purchasing goal of 20 percent from local sources by 2020.

This food system infrastructure work group interim goal and projected impacts are based on the 2006 MSU Strategic Marketing Institute working paper (1-1606) "The Economic Impact and Potential of Michigan's Agri-Food System."³⁵ The model used shows that by committing to a comprehensive support system for matching the rate of agri-food venture establishment to that of the economy as a whole, Michigan has the potential to generate more than \$7 billion in total outputs and create nearly 69,000 jobs from a total capital investment of about \$1.1 billion over a three-year period. Given a potential state workforce of 4.64 million, the 69,000 new jobs would reduce the state's unemployment rate by almost 1.5 percent.

In the Strategic Marketing Institute paper, MSU researchers project that the 851 establishment "births" in the agri-food sector would:

- Consist of 90 percent small-scale businesses (766) and 10 percent medium- and large-scale businesses (85).
- Involve \$380.4 million per year of business investment in structures, machinery, equipment and supplies, which would generate \$964 million of direct output annually and spur another \$1.5 billion of output annually from other supporting businesses, such as farms supplying new small-scale food processors.

INDICATORS

Key indicators of Michigan's progress in developing needed food system infrastructure are whether midscale farms are finding new economic opportunity as a result and whether infrastructure-related facilities and services are increasing as more farms and food businesses begin to serve good food needs. Specifically, we propose tracking such progress through the following indicators:

NUMBER OF MIDSCALE FARMS

- Increases over time in the number of midscale farms in Michigan, measured by market value of sales, would be a significant indicator of progress in developing the food system infrastructure needed for business success. The ongoing loss of midsized farms is a trend that extends from

³⁴ The number of new firm births is one of the most popular measures of entrepreneurship activity, according to Advanced Research Technologies. The U.S. Census Bureau issues annual data on establishment births for major industries and services in each state. According to the U.S. Census Bureau, births are establishments that have zero employment in year *t* and positive employment in the first quarter of year *t*+1.

³⁵ Peterson, H.C., Knudson, W.A., Abate, G. (2006) "The Economic Impact and Potential of Michigan's Agri-Food System, Strategic Marketing Institute Working Paper." The Product Center at Michigan State University, No. 1-1606, January. Retrieved from <http://www.productcenter.msu.edu/documents/Working/Economic%20Impact%20of%20Michigan%20Agri-Food%20Final%20010906.pdf>



coast to coast and beyond. The USDA Agricultural Census records have documented the changes in five-year cycles for all states.³⁶

- The infrastructure work group categorized Michigan midsized farms as those between 50 and 999 acres. Census figures from the 2007 USDA Agricultural Census Historical Highlights show a consistent pattern of declining numbers of Michigan farms in this acreage range over a 35-year period.³⁷ Michigan had 44,965 farms in the 50- to 999-acre category in 1978. The state had 29,100 in 2007, a 35 percent decline.

AGRI-FOOD REUSE OF COMMERCIAL PROPERTY IN MICHIGAN

- New agri-food distribution, processing, equipment manufacturing, storage and other food system infrastructure will show up in the sale and development of commercial properties.
- Several possible sources of information exist. In each case, specific information about agri-food property use will require sources to begin monitoring purchases and redevelopment efforts for agri-food components.
- One source of information is the Michigan Brownfield Redevelopment Program, which involves designation and redevelopment of contaminated, abandoned and blighted properties by a local brownfield redevelopment authority.
- Currently, sources at the Michigan Economic Development Corporation (MEDC) and the Michigan Department of Natural Resources and Environment indicate that neither agency maintains a statewide database of brownfield properties. To date, the responsibility for and task of maintaining lists of qualified and/or funded properties has been left to local and county governments, brownfield redevelopment authorities or other economic development agencies in Michigan's 83 counties.
- A representative of the MEDC recently confirmed, however, that a new and updated Brownfield Redevelopment Authority (BRA) contact list is under development. The expanded and improved visibility could result in an increase in the redevelopment of the properties. The new list is an opportunity for state leaders to encourage BRAs to monitor and report agri-food uses of properties.
- A second source is the Commercial Property Information Exchange (CPIX) with Michigan's Commercial Board of Realtors. The statewide listings are now included in Catalyst, a national listing service and software provider. According to the MEDC, the majority of the properties receiving special treatment or attention tend to be auto manufacturing-related.

INDICATORS OF SEASON-EXTENSION DEVELOPMENT

- Progress in supplying more high-quality Michigan food to Michigan and nearby markets will include installation of more season-extension technology so producers can build revenue with year-round or nearly year-round sales.
- One indicator of season-extension efforts is the number of passive solar greenhouses, or hoophouses, in use. A current baseline estimate of operating hoophouses in Michigan from Adam Montri, outreach specialist at MSU who works with hoophouse farmers across the state is 40 to 45.
- Another potential future source is the USDA Census of Agriculture, which collects information about greenhouse operations. Current data collected, however, mix all greenhouse uses, both floriculture and vegetable production, into one number. Interest in or requests for more detail about greenhouse uses could result in the USDA collecting additional detailed information in the future. The agency has responded to past requests by providing new information, such as in the areas of direct marketing and organic production.

³⁶ U.S. Department of Agriculture. (2007) 2007 Census of Agriculture, U.S. State Level Data: Economic Class of Farms by Market Value of Agricultural Products Sold and Government Payments: 2007 and 2002 (Table 3). Retrieved April 17, 2010 from http://www.agcensus.usda.gov/Publications/2007/Full_Report/Volume_1,_Chapter_1_State_Level/Michigan/st26_1_003_003.pdf

³⁷ U.S. Department of Agriculture. (2007) 2007 Census of Agriculture, Historical Highlights: 2007 and Earlier Census Years (Table 1). Retrieved April 17, 2010 from http://www.agcensus.usda.gov/Publications/2007/Full_Report/Volume_1,_Chapter_1_State_Level/Michigan/st26_1_001_001.pdf.

FEDERALLY INSPECTED MEAT PROCESSING FACILITIES

- Currently livestock producers can sell meat in retail cuts only if they have access to a federally inspected meat processing facility. Increases in such facilities would indicate increases in production and marketing of Michigan-raised meats.
- Positive indicators should reflect both a change in the number of processors involved in commercial beef/red meat slaughter located in the state and an increase in the total weight of beef/red meat produced by small to midsized farms.
- The USDA Food Safety and Inspection Service is the source for information on the status of federally inspected plants in Michigan. The District 45 office covers Michigan and Wisconsin and is located at 2810 Crossroads Dr., Suite 3500, Madison, WI 53718-7969; phone: (608) 240-4080.
- In Michigan in 2007 and 2008, 65 plants were reported in operation as follows: 30 federally inspected and 35 non-federally inspected. Individual plant volume is difficult to establish because of efforts by plant owners and operators not to divulge competitive information.³⁸
- Using agricultural census figures, Michigan's market share of red meat by weight amounted to slightly more than 1 percent of total red meat production with an estimate of nearly 30,000 head in 2008 and slightly more than 27,000 in 2007.
- A 2007 working paper by members of the MSU Product Center reported that, as in other agri-food categories, most of the market for beef cattle is concentrated in the hands of a few producers, with market share of the four largest beef processors growing between 1980 and 2004 from 28.4 percent to 70.9 percent.³⁹

AGENDA PRIORITIES

2012 Agenda

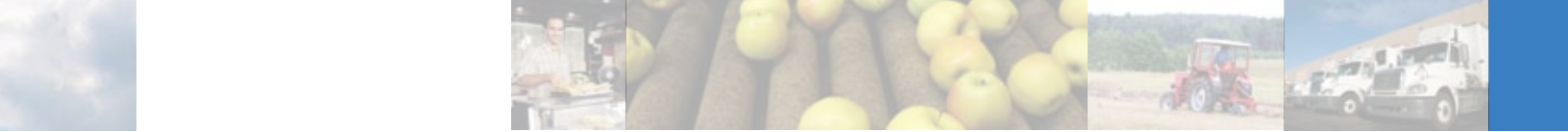
1. Establish food business districts to encourage food businesses to locate in the same area and to support their collaboration.

Spur new businesses and enable supply chain development by establishing food business districts that recognize and support the co-location and collaboration of farmers' markets, food processors, wholesalers, retailers and other related businesses. Such districts build clusters of products and services, which attract buyers and spur productive interaction of entrepreneurs. Food business districts can serve as local and regional hubs for good food entrepreneurship and infrastructure development.

Detroit's Eastern Market, as a centerpiece of the city's original development and more recent redevelopment, is an example of how food business clustering leads to food business growth. Another example is a new project in Grand Rapids to build a major retail/wholesale urban market as part of the city's downtown revitalization. Less urban locations could also use this food district strategy to boost town centers and local commerce. The strategy combines well with other redevelopment efforts such as brownfield redevelopment efforts and incentives for reuse of vacant commercial properties.

³⁸ U.S. Department of Agriculture. (2008) *Livestock Slaughter*. Retrieved from <http://usda.mannlib.cornell.edu/usda/nass/LiveSlau/2000s/2008/LiveSlau-02-22-2008.pdf>

³⁹ Knudson, W.A. and Peterson, H.C., (2007) "A Feasibility Assessment of a Meat Slaughtering/Processing Plant or Feedlot in Northern Michigan." Product Center at Michigan State University, *The Strategic Marketing Institute Working Paper*. Retrieved April 14, 2010 from http://www.michigan.gov/documents/mda/MDA_msu_feedlot_feasibility_184592_7.pdf



Ideally, the proposed food business districts would involve local and regional authorities working with state-level programmatic support. The resulting designation and plan for organizing a food business district can help communities draw local and federal funding for such projects.

The Michigan Main Street Program for downtown areas pursuing redevelopment is one model of a combined state and local effort.⁴⁰ Administered by the Michigan State Housing Development Authority, the program offers state-level criteria and recognition along with technical assistance and convening of local and regional stakeholders to develop plans and pursue resources.

Another model comes from Michigan's experience with its Agricultural Processing Renaissance Zones. Businesses compete for designations out of a limited number available, which come with property tax incentives for a period of time. To better fit good food business and infrastructure development, Michigan could adapt this model to include incentives that work for small and midscale businesses and apply it to groups of businesses and locations beyond industrial zones, such as mixed-use retail areas.

Implementation: Local and regional entities can initiate such food business district designations and programs. State-level leadership, however, would provide important recognition of local and regional food hubs as a valuable economic development strategy. This vision and leadership must also come from the places where most local and regional leaders go for economic development guidance: the Michigan Department of Labor, Energy and Economic Growth and/or the Michigan Economic Development Corporation.

With a vision, a champion and a clear step-by-step program, state leaders could spur and support local and regional investment of time and resources to create food business districts and generate jobs and local and federal investment as a result.

Resistance will come from those in economic development who do not see food and agriculture investments leading to the job growth that Michigan needs. Overcoming that resistance requires recognition and communication of the aforementioned agri-food economic impacts and linking of agri-food entrepreneurship to other economic development strategies, such as the well-accepted "regional place-making" approach to retaining and attracting talent in the knowledge economy era.⁴¹

The link to regional place-making makes sense, given the power of agri-food entrepreneurship generally and regional food hubs specifically to build amenities in town centers and adjacent rural areas. Urban markets, for example, are destinations that make town centers attractive. As a support to the local farm economy, food business districts and hubs can also help towns gain a competitive edge through agri-tourism and other recreational opportunities on the urban edge and in their region. Quality, place-identified food products in schools, restaurants and home refrigerators further add to pride of place that keeps and brings household and business investments. Food business districts support these amenities as well as the development of new products, sales and services that build local commerce and jobs.


2. Charge business support entities, such as the 18 Michigan Technical Education Centers (M-TEC) and Michigan State University Extension, with identifying and supporting the equipment and process engineering needs of farmers and other agri-food enterprises, and ensure that food and agriculture are included in state and local economic development plans.

The state's many business and technical assistance entities have capacities in engineering, logistics and other fields that are needed in the food system arena. Existing equipment and processes are designed almost exclusively for the large-scale and global anonymous tiers of the food system. Shorter supply chains require different types and scales of equipment and processes. Technical assistance providers can support food system entrepreneurs in their work to develop equipment and process solutions.

Forms of support could include retrofitting equipment for new uses, designing a mobile meat processing unit for area livestock producers or analyzing the flow of a packing line so a business can introduce a new product to the line cost effectively.

⁴⁰ For further information see <http://www.michiganmainstreetcenter.com/Program.aspx>

⁴¹ Adelaja, S. et al. (2009) "Chasing the Past or Investing in Our Future: Placemaking for Prosperity in the New Economy." Land Policy Institute, Michigan State University. Retrieved March 29, 2010 from www.landpolicy.msu.edu/ChasingthePastReport.



The business support entities could identify needs and develop responses by consulting with agri-food entrepreneurs in the region, such as through roundtable discussions or task forces that a regional chamber of commerce or economic development corporation could host. The support entities could also solicit proposals or launch competitions by which entrepreneurs could present their challenges for agency or student and faculty response.

Such an outreach process would be valuable not just to solve individual agri-food businesses' technical problems but also to establish relationships between the support entities and a sector with which many, outside of Extension, have had relatively little contact. From these new relationships, additional region- and market-appropriate food system infrastructure initiatives can grow.

Implementation: Local business and economic development leaders can take the lead by requesting that various technical assistance entities investigate and support food system infrastructure development needs. State-level leadership and direction of such entities is important, however, to make food system infrastructure support a priority.

Limited budgets will naturally deter such entities from adding another group of entrepreneurs and business issues to their plates. This item will require local, regional and state leaders to both recognize the need for this attention and request it from the taxpayer-supported agencies.

3. Examine all of Michigan's food- and agriculture-related laws and regulations (food safety, production, processing, retailing, etc.) for provisions that create unnecessary transaction costs and regulatory burdens on low-risk businesses and ensure that regulations are applied in a way that acknowledges the diversity of production practices.

Most of the state's food and agriculture regulations put farms and food businesses of all sizes and types under the same rules irrespective of their relative risk. The typical one-size-fits-all approach is generally geared to higher risk situations and forces less risky operations to comply with requirements for equipment, processes, and other investments of time and money that exceed real needs. For example, a regulatory requirement for a bathroom for workers is reasonable, but requiring a family to add portable restrooms in the 2-acre garden, when the house bathroom will do, is not. This regulatory mismatch can stymie food system infrastructure development because unduly burdensome regulations present significant barriers to market entry and thus to market development.

Local and state authorities charged with protecting public health and natural resources must develop more equitable and rational enforcement so that the level of oversight matches the level of relative risk.

Implementation: Under the auspices of the Michigan Food Policy Council, regulators from the Michigan Department of Agriculture, the Michigan Department of Natural Resources and Environment, and the Michigan Department of Community Health should convene a task force to assess current laws, rules and policies related to food- and farm-related oversight. The task force should include representatives of food and farm business interests as well as public health and natural resources interests.

Specifically, the task force should examine current laws and rules, develop recommendations for rationalizing them to fit relative risk, prioritize the recommendations, and provide an action-oriented report to the Michigan Food Policy Council, the three departments involved and the Michigan Legislature. The report should include specific wording and steps required for making legislative and rule changes that the task force has prioritized.

Opposition to this agenda item will come from state departments that, because of the state's fiscal situation, have little capacity to take on an extra task. Other opposition will claim that many laws and rules are federal in nature and out of the state's hands.



Overcoming opposition that comes from fiscal considerations will require recognition that the task force can build on analyses that some in the departments have already undertaken, and a cost-benefit approach to communicating the return to state government and the return in economic development for taking this business-building step. State commitment to local and regional food system development is required, along with motivational leadership from top officials in the state's legislature and administration.

Overcoming opposition based on the federal nature of many food- and farm-related rules and regulations will require recognizing the state's role as administrator of many federal laws, such as the Clean Water Act, and the extent to which the state already writes rules in compliance with these laws; and recognizing the need for state involvement in developing and/or administering federal rules so that they fit the state's food and farm business reality.

Pending changes in federal food safety rules for produce are an example of opportunities for local and state leaders to both influence final rules and develop a shared position on them that keeps relative risk in the forefront. As of late 2010, Congress was working to finalize the Food Safety Modernization Act (S-510). The pending legislation addresses major problems with food safety in the produce industry but, without the inclusion of amendments to address differences in scales of production, could be onerous for small and medium size farms.⁴² Proactive state involvement in final rule development and administration is needed on behalf of small and midsized farms in short supply chains, which pose relatively low risk.

4. Include Michigan food and agriculture in state marketing, such as the Pure Michigan campaign, to build awareness of the state's great variety and quality of local food products and farm amenities.

Integrate food and agriculture marketing into existing programs with the objective of developing longer term regional branding and programmatic support along the lines of the successful Select Michigan effort, which is now practically defunct because of state budget cuts.⁴³

Much of the new food system infrastructure needed to achieve the Michigan Good Food Charter vision will develop out of potential sales of Michigan products to Midwest neighbors, including Canada. Consumers in those areas do not know that Michigan peaches, plums, asparagus and other produce rival any they currently purchase from other places. Even Michigan consumers are largely in the dark on this fact. Good food entrepreneurs are changing these perceptions, but state and local marketing support is needed to help them tell the Michigan story in food markets.

Implementation: Implementation of this agenda priority starts with the natural agri-tourism draw that is already a small part of the state Pure Michigan campaign and local efforts by such entities as convention and visitor bureaus. Growing this food and agriculture component in tourism marketing will require recognition of the extent to which tasty, local food is an attraction for visitors in addition to the typical agri-tourism experience of farm stands and hayrides.

National coverage of Michigan's urban gardening movement, as well as coverage of the state's restaurants, chefs⁴⁴ and local foods, will help build involvement by state and local marketing leaders as they recognize Michigan's national good food leadership. Michigan's new Culinary Tourism Alliance is another positive development around which state tourism marketing and food system promotion may come together.⁴⁵

Opposition could come because of limited funding for state promotional campaigns. But the relationship between Michigan marketing and Michigan food and agriculture is growing and, with encouragement from local and state leaders, could expand into creative and collaborative approaches that can benefit Michigan food sales as well as the hospitality industry.

⁴² National Sustainable Agriculture Coalition. (2010) "Senate Passes Food Safety Modernization Act." Blog, November 30. Retrieved December 6, 2010 from <http://sustainableagriculture.net/blog/senate-passes-food-safety-bill/>.

⁴³ Cantrell, P., Conner, D. S., Erickcek, G., & Hamm, M. W. (2006). *Eat Fresh and Grow Jobs, Michigan*. Retrieved from <http://www.mottgroup.msu.edu/Portals/0/downloads/EatFresh.pdf>

⁴⁴ Absolute Michigan. (2010) "James Beard Likes Michigan Chefs!" Retrieved March 29, 2010 from <http://www.absolutemichigan.com/dig/michigan/james-beard-likes-michigan-chefs/>

⁴⁵ For further information see <http://mich.gov/som/0,1607,7-192-45414-227220--,00.html>.

5. Amend Michigan's General Property Tax Act to exempt certain on-farm renewable energy installations.

Currently, Michigan taxes on-farm installations of renewable energy technologies as personal property. Yet reducing energy costs through renewable energy generation is a key survival strategy for farms, particularly greenhouses with the potential to raise vegetables year round.

The Michigan Legislature has already exempted eligible methane digester electric generating systems. Also exempt should be geothermal, micro-hydro, wind and solar installations to encourage innovation on farms, particularly in pursuit of reducing energy costs and carbon emissions, which both contribute to profitability through increased efficiency and marketability.

The third-generation Elzinga-Hoeksema Greenhouses in Portage is one example of an agri-food business that took significant energy-saving, business-building initiative only to receive a discouraging personal property tax bill for the on-farm installations.

Owner Mark Elzinga invested \$4 million in geothermal, solar, wind and other energy-efficiency technologies at his 12-acre New Millennium Greenhouses site, one of four greenhouse complexes that his company operates. The investment was part of building long-term energy security for his existing floriculture business and his new winter vegetable business.⁴⁶ "We were watching gas prices go up every year, electricity prices go up every year," he said. "We decided to take a chance; we'd seen it done successfully in Europe." Because only methane digesters are exempt, Mr. Elzinga received a six-digit personal property tax bill.

Implementation: This item should receive support from those involved in Michigan's sustainable business arena, particularly the new green energy sector, which counts farms among its customers. Similarly, Michigan's strategy to become a manufacturing hub for renewable energy equipment is also conducive.

Opposition to reducing tax revenues may come from lawmakers and others concerned about Michigan's fiscal crisis. Yet proponents can overcome these objectives by making the case that encouraging such innovation will build the state's tax base through new business investment. Farm entrepreneurs will be more likely to make green energy investments if the state stops penalizing such innovation by taxing on-farm renewable energy installations as personal property.

Proponents can also point out that lawmakers have already given one exemption to a narrow set of agribusiness interests (methane digesters benefit a small number of large livestock operations almost exclusively) and should consider the energy and economic benefits of encouraging other types of farms to install other green energy technologies.

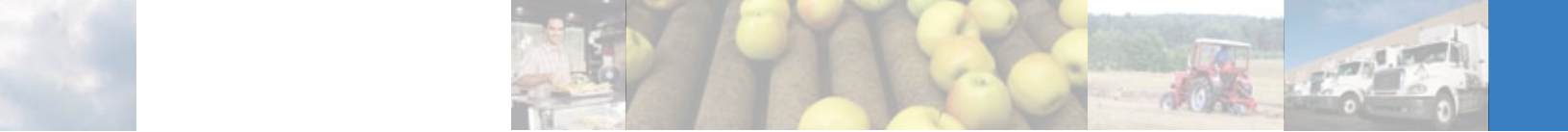
2015 AGENDA

6. Direct \$10 million in state funding to regional food supply chain infrastructure development investments through the Michigan State Planning and Development Regions or other regional designations.

"Regional" is the keyword in this agenda item. Public investments in regional food system infrastructure are best made as part of fulfilling a regional plan and in collaboration with regional entrepreneurs and citizen leaders involved in that planning.

Most of the limited public funding available to food system entrepreneurs is granted on an individual basis. It is not connected to any plan for the region's food system development, and it often results in one-off grants to businesses and organizations that can manage the highly complicated federal grant application process. Past state funding for agricultural innovation (Julian-Stille grants) was also based on an individual application process, not a strategic investment effort. Michigan agriculture has since lost half of the total \$10 million available for the Julian-Stille grant program after the state legislature directed the remaining \$5 million to improvements at Detroit's Cobo Hall.

⁴⁶ Cantrell, P. (2009) "Summer Flowers. Winter Vegetables. Year-Round Success." *Great Lakes Bulletin News Service*, March 26. Retrieved April 19, 2010 from <http://www.mlui.org/farms/fullarticle.asp?fileid=17320>.



This agenda priority of a strategic regional food system infrastructure investment program would:

- Work through Michigan State Planning and Development Regions or other regional designations. These regional entities would administer the program, oversee development of a strategy for regional food system infrastructure development and authorize proposed regional development authorities.
- Qualified regional development authorities would have demonstrated understanding of and capacity in regional food system development. They would make funds available to public and private initiatives in the region on the basis of a regional strategy informed by food, farm, and other business and community development interests. Competitive applications would require business investment and collaboration that fit the regional strategy.
- Regional authorities would also grant other incentives that come available for food system infrastructure, such as tax credits for equipment purchases.

Michigan's brownfield redevelopment authorities provide a model, with qualified entities and groups of stakeholders working together on a plan for cleanup and re-use of contaminated and blighted properties. They make funds available to competitive projects that carry out those plans.

Michigan State Planning and Development Regions could designate and house the proposed regional food system development authorities, which would apply for and receive authorization on the basis of qualification criteria. These authorities would then work to further private and public projects that fit the region's food system development plan and leverage other dollars as well.

Implementation: Implementation has two parts: moving money to the regional food system infrastructure development initiative and building the program itself, including establishing the process and criteria for development authorities.

Transfer of \$10 million from state revenues will require top-level state commitment to food system infrastructure development as an economy- and job-building strategy. Like the implementation strategy for the first agenda priority, this requires demonstrating how food system infrastructure investments will pay off for related economic development efforts such as regional place-making.

State leadership on this idea is also needed to spur the regional food system planning that will form the base of the strategies that regional development authorities will pursue.


Groundwork is strong in many areas of Michigan. State recognition, investment and step-by-step program development can bring many budding efforts and projects to fruition. Implementation of 2012 agenda priorities (food business districts, technical assistance to shorter food supply chains) will also generate regional focus on planning for food system infrastructure needs.



7. Develop systems for collecting and sharing market and other data relevant to regional food supply chain development.

The purpose of this priority is to assist agri-food entrepreneurs and technical assistance providers with information about the size, potential and status of markets for food that has local, regional and other good food attributes.

The Michigan Department of Agriculture can use its long-standing collaboration with the USDA National Agricultural Statistics Service (NASS) to initiate a series of surveys that provide benchmark and ongoing information such as the number of farms engaged in local and regional food markets and the market value of sales and production volume involved. Increasing interest at the USDA in collecting this information will be helpful, such as the agency's addition in recent years of statistics in the Census of Agriculture on direct marketing and organic farming.



Lawmakers and MDA officials can also work with Michigan State University, as the land grant university for the state, to establish benchmarks and ongoing information about local and regional food demand, including what attributes consumers are looking for and whether supply is meeting that demand. Federal funding for agricultural research could be leveraged for the upfront cost of developing and establishing such data collection.

Implementation: Support from researchers at the MDA, the NASS and MSU will be needed to both advocate for and develop the new data collection. The challenge for researchers is twofold: the local and regional data needed are more difficult to collect than statewide data, and much of the information may be proprietary (e.g., sales information). New systems for collecting the new data in a way that does not compromise private businesses may be required.

Nevertheless, many research approaches exist to collect needed information, and interest among agri-food entrepreneurs may be strong enough for private businesses in the emerging good food sector to become involved in developing needed data collection systems with state and university researchers.

Another opportunity for covering the time and cost of implementation is for the MDA, NASS and university researchers to assess current data collection efforts to determine whether some existing investments of time and money are perhaps less needed (e.g., outdated or serving few rather than many).

Finally, it will help to hear from technical assistance providers and others in economic development agencies, etc., about the kinds of data they need in their business development work. Their involvement and specification of needs can also help overcome obstacles to initiating new data collection.

2020 AGENDA

8. Contingent upon further market assessment, establish a state meat and poultry inspection (MPI) program in cooperation with the federal Food Safety and Inspection Services (FSIS) to spur new meat processing infrastructure by providing more proactive and responsive service to small and mid-sized meat and poultry processors.

The meat and poultry inspection (MPI) program allows states to provide inspection services that are “at least equal to” federal inspection so that meat slaughtered under state inspection can also be sold as retail cuts. A new provision in the 2008 federal Farm Bill allows for such state-inspected meat to be sold for the first time across state lines.⁴⁷

The need and opportunity for Michigan to reinstate meat inspection services will grow by 2020 as the number of food and farm entrepreneurs serving markets for local and regional food grows. Quantifying this need in 2020 and the cost-benefit of reinstating state meat inspection, however, is a prerequisite for moving forward with this agenda priority.

Michigan can target limited funding for a state MPI program by focusing on gaps in service across the state and on particular market needs and opportunities in meat processing. Steps to take include assessing the capacity and geographic accessibility of existing meat processing facilities and estimating the number of new processing facilities, including lower cost mobile units, that markets would support and the scale at which they could operate profitably.

Minnesota, North Dakota and other states that have reinstated federal-equivalent state meat inspection services in recent years have experienced increases in the number of small and mid-sized plants that go into business or expand.⁴⁸ The success of and support for such state meat inspection developments culminated recently in the new 2008 Farm Bill provision to allow interstate shipment of state-inspected meat and poultry products.

⁴⁷ Baker, Z., Hoefner, F., Noble, M. and Witteman, A. (2008) “Interstate Shipment of State-Inspected Meat” in *Grassroots Guide to the 2008 Farm Bill*. National Sustainable Agriculture Coalition. Retrieved March 29, 2010 from <http://sustainableagriculture.net/publications/grassrootsguide/local-food-systems-rural-development/interstate-shipment-of-state-inspected-meat/>.

⁴⁸ New Rules Project. (2001) “State Inspection Revives Local Markets.” *Institute for Local Self Reliance*. Retrieved March 29, 2010 from <http://www.newrules.org/agriculture/article/state-inspections-revive-local-markets>



State inspectors can provide one-on-one service to small and midscale meat processing businesses that do not have the ability to hire the technical and legal expertise needed to navigate highly complicated regulations. A state inspection service offers a business development benefit by providing more responsive service than the USDA can provide.

Because federally inspected meat and poultry processing plants are few and far between, many of Michigan's smaller scale livestock producers use "custom-exempt" slaughter plants, which means they must pre-sell (sell prior to slaughter rather than after) meat by halves and quarters. The growth of local and sustainable meat and poultry businesses in Michigan is limited without more federal inspection or equivalent state inspection at slaughter, whether in a fixed facility or in a mobile processing unit.

Mobile units are emerging across the country as a cost-saving option for meat processing entrepreneurs and livestock producers, who often work together to bring about such infrastructure needed to build shorter meat supply chains. In any case, federal inspection is now needed in Michigan for producers to sell the meat retail, unless and until the state reinstates a state meat inspection program.

Implementation: FSIS provides guidelines for states in their establishment of MPI programs that are "at least equal to" federal inspection and reviews such programs regularly to assure they meet this standard.⁴⁹ Michigan can, therefore, establish an MPI program by using these guidelines to develop a program that meets federal requirements. The Michigan Department of Agriculture is the primary candidate for operating the program.

Opposition to this proposal will certainly arise because the program will require state funding to operate. The opposition, likely from budget-minded lawmakers, will question whether the investment will generate enough return in meat processing business growth to warrant the outlay. Opposition will also question the need for state inspection if federal inspection is technically available.

Overcoming this opposition will require developing an MPI program that builds on existing MDA expertise and field operations for a moderate-cost program. It is important also to note that the cooperative arrangement with FSIS includes the federal agency covering up to half of the program cost.⁵⁰ In a 2002 interview, Dr. Lee Jan, then president of the National Association of State Meat and Food Inspection Directors, explained that the average cost to states after the federal cost share was \$1.8 million per year.⁵¹

Finally, overcoming opposition will also require substantiating the demand and need for such meat inspection services, including the failure of federal inspection services to adequately meet the demand from potential new meat processing businesses. The seventh agenda priority, collection of more local and regional market data, could by 2020 help substantiate that demand, as well as the business and market development value of Michigan investing in state meat inspection.



⁴⁹ U.S. Department of Agriculture Food Safety and Inspection Service. (2010) *Regulations and Policies, State Inspection Programs*. Retrieved April 17, 2010 from http://www.fsis.usda.gov/regulations/state_inspection_programs/index.asp

⁵⁰ U.S. Department of Agriculture Food Safety and Inspection Service. (2004) *FSIS Directive 5720.2 Revision 3: State Cooperative Inspection Programs*. Retrieved March 29, 2010 from <http://origin-www.fsis.usda.gov/OPPDE/rdad/FSISDirectives/5720-2Rev3.pdf>

⁵¹ Cantrell, P. (2003) "States Get Back into Meat Business." *Great Lakes Bulletin News Service*, January 30. Retrieved March 29, 2010 from <http://www.mlui.org/farms/fullarticle.asp?fileid=16414>

CONCLUSION

Michigan's food and agriculture sector is large and successful, with an estimated annual economic impact of \$71 billion, including the agri-energy arena. Yet when it comes to measures of success beyond sheer yields and sales, Michigan's food and agriculture sector has many challenges.

One measure is whether quality fruit and vegetables are available to and affordable by every citizen. Another is whether farmland around cities is economically viable enough to provide local food, as well as build a region's attractiveness and resilience by protecting water and wildlife. Our capacity for regional food supplies in the face of rising oil prices, national emergencies and shifting weather patterns is yet another.

Michigan is challenged on these and many other good food indicators. "Food deserts," neighborhoods without quality grocery options, are common across the state. According to the Michigan Department of Agriculture, there are areas in each of Michigan's 83 counties that qualify for a state tax incentive for supermarket investment because the retail infrastructure for good food access is deficient.⁵² At the same time, fully 55 percent of the state's farms lost money in 2007, according to the last national agriculture census.

Digging deeper, we find that Michigan agriculture has mixed agri-food results because the various pathways or market channels between food production and consumption are mixed, too. Some pathways are well-developed for food and farm businesses in Michigan; others are not. The resulting gaps in food system infrastructure block access to new agri-food opportunities, such as sales from local farms to nearby hospitals, schools and restaurants.

Yet entrepreneurship, innovation and opportunities are growing in these channels, despite the unevenness in infrastructure, because consumers, farmers and others are seeking ways to reach one another. Indeed, across Michigan and the nation, a new good food system is showing up. It is linking not just food growers and food eaters interested in getting more of certain food attributes (healthy, green, fair, affordable) but also health professionals, educators, business developers and environmentalists. They are finding common purpose in leveraging the power of good food to grow jobs, protect land and build health.

As Michigan struggles to reinvent its economy in the 21st century, this food revolution is becoming a strategic economic development asset. It is proving to be an integral part of building more successful urban and rural areas.

That, according to experts such as Dr. Soji Adelaja, one of the state's economic revitalization gurus, is a true, fundamental element of Michigan's overall future success.

"Michigan's historical lock on prosperity - industrial infrastructure, capital, auto plants, skilled labor, etc. - counts for less in the new, global economy," says Dr. Adelaja, the director of the Michigan State University Land Policy Institute and Hannah distinguished professor. "The rules of success have changed."⁵³

In this new era, those rules for success are much more about becoming a place where young people want to live. Attracting them means offering a great quality of life, which will also make our state a powerful magnet for companies competing to hire those young people.

If we help build infrastructure for private and social entrepreneurs now, forging the regional supply chains that good food needs, Michigan can reach a triple bottom line: new jobs, healthier people and stronger urban-rural connections.

⁵² Michigan Department of Agriculture. (2008) "Increasing Access to Healthy Foods: Michigan's New Property Tax Incentive for Retail Food Establishments (Public Act 231 of 2008)." Retrieved May 10, 2010 from <http://www.michigan.gov/mda/0,1607,7-125--220744--,00.html>

⁵³ Personal Communication. (2008) Soji Adelaja, Director, Land Policy Institute at Michigan State University, East Lansing, Mich.



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