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September 5, 2014

Michael E. Marshall  
Secretary of the Senate  
State Capitol Building  
Des Moines IA 50319

Carmine Boal  
Chief Clerk of the House  
State Capitol Building  
Des Moines IA 50319

Re: Local Food and Farm Program Annual Report – Leopold Center

Dear Members of the Iowa General Assembly:

Pursuant to Iowa Code §267A.7, the Local Food and Farm Program report as of June 30, 2014 is enclosed.

If there are any questions concerning this report, please do not hesitate to contact us.

Sincerely,

Robert Donley

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Enclosure

cc: Robin Madison, LSA  
Legislative Liaisons  
Legislative Log

# Local Food and Farm Program Final Report to the Iowa Legislature June 2014



## **Leopold Center for Sustainable Agriculture**

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Ames, IA 50011-1050

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## **Iowa State University Extension and Outreach**

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## About this report

This is the final report to the Iowa Legislature regarding the Local Food and Farm Program. It was established in August 2011 as part of the Local Food and Farm Initiative to work on four broad goals:

- Promoting the expansion of local food production, processing, distribution and marketing of Iowa food.
- Increasing consumer and institutional spending on Iowa foods.
- Increasing the profitability of farmers and businesses engaged in local food enterprises.
- Increasing the number of jobs associated with local foods.

The program is a collaborative effort among the Iowa Department of Agriculture and Land Stewardship, Iowa State University Extension and Outreach, ISU's College of Agriculture and Life Sciences and the Leopold Center for Sustainable Agriculture.

This report covers activity from July 2013 through June 2014.

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**Table of contents**

Executive summary ..... 4

The case for local foods in Iowa ..... 5

Iowa Local Food and Farm Initiative (LFFI) ..... 6

Updates on the LFFI project areas funded for 2013-14 ..... 7

Project area 1: Business Development and Financial Assistance ..... 7

Project area 2: Beginning, Minority and Transitioning Farmers ..... 9

Project area 3: Local Foods Incentive ..... 9

Iowa Food System Working Group (IFSWG) ..... 11

Marketing and Food Systems Initiative (MFSI) of the Leopold Center ..... 11

Publications developed July 2013-June 2014 ..... 15

Plan of Work for 2014 ..... 15

The Program Team ..... 18

Local Food and Farm Program Council ..... 19

## Executive summary

Demand for local food is moving to the mainstream markets, but much work remains to be done to provide access to food at an affordable price for all Iowans. Retail outlets selling local food continue to expand, both in number and types of products offered. Farmers Markets and Community Supported Agriculture enterprises (CSAs) are gaining ground along with institutional purchases from schools, hospitals and care centers, food distribution companies, hotels and restaurants. Providing enough quality products for all these Iowa outlets is a continuing (but welcome) challenge. Ultimately, local food sales are one way to combat the problem of money leaving the state to purchase food needed to meet the needs of Iowans.

The heightened interest in local food is driven by the:

- desire for using food production as community economic development,
- health crisis of obesity, especially in children,
- limited capacity of young farmers to successfully enter commodity farming, and
- growing severity of climate change and the need to implement sustainable farming practices such as extended rotations, minimum tillage, and the substitution of labor for fossil fuel.

Work supported by legislative funds from the Local Food and Farm Initiative (LFFI) is helping to meet the demand for local food and create a more vibrant and sustainable local food economy. Primary emphasis is being directed at ways the LFFI funds can be used to leverage research and programs/projects to focus on business development in the local food system.

This report contains an overview and work summary of three Iowa State University efforts focused on the advancement of Iowa's local food systems:

- Local Food and Farm Initiative (LFFI)
- Iowa Food System Working Group (IFSWG), and
- Marketing and Food Systems Initiative (MFSI) of the Leopold Center for Sustainable Agriculture

A variety of activities and educational programs are facilitated and funded by these organizations including:

- an annual conference,
- food hub/aggregation center studies,
- urban agriculture projects,
- Farm to School programming, and
- an increased number of regional local food coordinators hired across the state.

One of the primary goals of the Local Food and Farm Initiative this year was to help create, support and participate in coalition building around the local food system.

As shown in the Impact Snapshot [[www.leopold.iastate.edu/LFFI-snapshot](http://www.leopold.iastate.edu/LFFI-snapshot)] of the Local Food and Farm Initiative, more than \$660,000 in leveraged funds were received as a result of the nearly \$37,000 invested from the Local Food and Farm Initiative funds.

## The case for local foods in Iowa

**In 2012, nearly 3,000 Iowa farms sold products worth \$17.5 million directly to consumers up from \$16.5 million in 2007.** This increase in sales occurred despite the fact that the number of farms reporting direct sales remained steady, with 2,987 farms reporting direct sales in 2007 and 2,964 in 2012.<sup>1</sup>

As one of the largest U.S. agricultural production states, Iowa possesses unique advantages and potential to expand the state's local food economy. Almost three-quarters of Iowa's land already is vested in agriculture; commercial and conventional farming infrastructure dominates the landscape. With the support of federal programs, complementary initiatives in neighboring states, and the clout and capacity of a strong network of committed farmers and community leaders, Iowa is well positioned to expand its leadership in agriculture through intentional investments that will grow the local food economy.

Iowans spend more than \$8 billion on food each year and it is estimated that only 14 percent of that food is grown within the state.<sup>2</sup> Research by Iowa State University (ISU) economist David Swenson showed that Iowa has 83 percent fewer acres devoted to vegetable production than the national average. In addition, Swenson found that Iowa has 94 percent fewer acres devoted to the production of non-citrus fruit. As a result, the majority of fresh fruits and vegetables consumed by Iowans must be imported from other states and countries.<sup>3</sup> Swenson's research describes the current state of agriculture in Iowa and the steps needed to develop a vibrant and sustainable food economy. Increased production of fruit and vegetables coupled with a decrease in food imports could result in a corresponding increase in jobs and incomes for many Iowans. Despite the increase in local foods activities, there is still much work to be done. Swenson suggests that there needs to be an increase in direct-to-consumer sales as well as sales in the retail and institutional sectors. Furthermore, he stresses the value of adding more food system localization infrastructure, research and development and incentives.<sup>4</sup>

The interest in the local food sales is not limited to fruit and vegetable producers. Conventional farmers who raise corn, soybeans, cattle and hogs also may view local food markets as a way to diversify their operations or help a son or daughter begin his or her own agricultural enterprise. Greenhouse and high tunnel production have the potential to expand year-round fruit and vegetable production in Iowa. Increased local food production, marketing and processing means more jobs. A 2010, six-state research project examining the potential value of an expanded fruit and vegetable industry in six states (Iowa, Illinois, Indiana, Michigan, Minnesota and Wisconsin) studied the potential benefits of increasing production of 28 fruit and vegetable crops and a projected increase in consumption of in-state produce. The analysis indicated that under this scenario farm-level sales would reach about \$61.4 million, with a potential retail value of \$230.1 million and would require creation of a total of 657 farm-level jobs, compared to the 131 jobs currently generated from this acreage under corn and soybean production.<sup>5</sup>

Swenson authored a report (March 2013) on Iowa's shrinking labor force, indicating that economic growth will be limited if the current downward trends in Iowa's workforce numbers are not reversed. Members of Iowa's workforce are leaving the state in increasingly high numbers in order to maintain an economically stable household. When a family leaves the state, the household leaders also take their children. This depletes the existing workforce as well as the store of potential members of the agricultural work force and knowledge base. This loss of young workers has social consequences because young people represent Iowa's future; they are the individuals who will later become



contributing community members, local government representatives or agricultural producers.<sup>6</sup>

Enthusiasm for local and sustainably produced foods in Iowa continues to grow. As of May 2011, there were more than 100 organizations and programs including state, federal, university and private groups engaged in helping build Iowa's local food economy.<sup>7</sup> These efforts help address the concerns about workers moving out of the state and reveal multiple opportunities for Iowans to be involved in their local food system. ISU affiliated departments, including ISU Extension and Outreach (ISUEO) and the Leopold Center for Sustainable Agriculture (LCSA) work to share the multitude of resources currently available and develop various tools to help with the challenges and opportunities facing those interested in producing and procuring local food. Furthermore, ISU contributes a significant amount of funding and support to the Iowa Food System Working Group (IFSWG) and its work is heavily integrated with that of the Marketing and Food Systems Initiative (MFSI) of the Leopold Center. The work being done by these two organizations provides strong and complementary support to LFFI programming; notable outcomes and outputs will be described later in this report.

## Iowa Local Food and Farm Initiative (LFFI)

### Overview of the LFFI

Taking into account the increasing importance and potential benefits from developing local food systems, the Iowa legislature asked the Leopold Center for Sustainable Agriculture to develop an “actionable” plan to create a more vibrant local food economy. The Iowa Local Food and Farm Plan was developed in 2010 by gathering and assessing input from more than 1,000 individuals. The resulting document outlined 29 operational recommendations organized in six sections:

- Business Development and Financial Assistance
- Processing
- Food Safety
- Beginning, Minority and Transitioning Farmers
- Assessing Progress
- Local Food Incentives

The Iowa Local Food and Farm Plan was presented to the Iowa legislature in January 2011 and in July 2011 funds were approved in the state's agriculture and natural resources budget to establish the Local Food and Farm Initiative (SF-509). The purpose of this Initiative is to “empower farmers and food entrepreneurs to provide for strong local food economies that promote self-sufficiency and job growth in the agricultural sector and allied sectors of the economy.” Because many other partners are working successfully on Processing, Food Safety and Assessing Progress, the Local Food and Farm Initiative focused on Business Development and Financial Assistance; Beginning, Minority and Transitioning Farmers; and Local Food Incentives. While the Iowa Local Food and Farm Plan was not explicitly referred to in the legislation, the goals of the Initiative and the recommendations from the Plan were integrally related.<sup>8</sup> This work began in 2011 and will continue with renewed support and funding approved in the 2014 legislative session.

### Outputs and outcomes of the LFFI

The LFFI programming has yielded a variety of outputs and outcomes since its inception. In April 2014 the LFFI hosted the third local food conference: *It's Your Business: Expanding Opportunities in Iowa's*

*Food System.* More than 100 people attended and based on their responses to the program evaluations, they appreciated the event's focus and gained information they could apply in their workplace. Participants left the conference with greater understanding and ability to support businesses involved in the local food system. Ninety-one percent of respondents said they made new networking connections and 83 percent indicated that they intend to take specific actions as a result of learning or networking at the conference.

Featured speaker Lucy Amundsen, Marketing Manager for her family-owned business, Locally Laid, encouraged participants to turn their personal narrative into a successful brand. While most of the break-out sessions received high marks, this session was especially highly rated. Comments showed that respondents appreciated her candor and ideas she shared about marketing.

Participants could attend any of three workshop tracks: Food Hub Creation and Sustainability; Processing Centers and Value-Added Products; and Online and Institutional Marketing Strategies. Presentation information from most of the sessions is available on the Leopold Center's website ([www.leopold.iastate.edu/2014-iowa-local-food-conference](http://www.leopold.iastate.edu/2014-iowa-local-food-conference)).

## Updates on the LFFI project areas funded for 2013-14

As described in the overview of the LFFI, the Initiative chose to focus its efforts in 2013-14 on

- Business Development and Financial Assistance,
- Beginning, Minority and Transitioning Farmers, and
- Local Food Incentives (including Farm to School).

### Project area 1: Business Development and Financial Assistance

#### Background, rationale and relevance

##### *Food Hubs:*

The Local Food and Farm Initiative has focused its work on investigating and studying business development models for the creation of *food hubs*. Commercial distributors and retailers require large quantities of produce from a limited number of reliable sources in order to simplify their business transactions. One way to meet the needs of distributors and retailers is to aggregate produce from multiple farms at a single location for packing, processing and shipment; these facilities, known as food hubs, act as brokers and aggregators between farmers, distributors, and retailers. In a May 2013 press release, Tom Vilsack, U. S. Department of Agriculture (USDA) Secretary, noted the need for a comprehensive, multi-year *Food, Farm and Jobs Bill* that would provide the USDA with the program support needed in order to continue making investments in local and regional food systems.<sup>9</sup> Current USDA estimates identify more than 300 active food hubs across the country. These groups have successfully leveraged state, federal and private investments, including USDA funds, to develop and expand their businesses. The USDA has developed an online portal dedicated to food hubs featuring news, cutting-edge research and publications related to food hubs and other innovative food distribution models (<http://www.usda.gov/wps/portal/usda/usdahome?contentid=2013/02/0036.xml>).

New food hubs already are opening fresh markets for Iowa growers, particularly small-scale farmers. Food hubs currently active in Iowa include Iowa Valley Food Cooperative, Iowa Food Cooperative, and



Iowa Food Hub, with several hubs under development. As they seek to maximize their potential, these hubs offer three key services. First, they aim to provide effective and efficient means of aggregating and distributing local products, by offering their own storage facilities and trucking services or by coordinating logistics and brokering distribution by third party entities. This allows farmers to access new consumer bases, and enables existing retailers, distributors, and food service buyers to source products locally and regionally. Second, food hubs will help small farmers meet industry requirements for product volume, quality, consistency (through production scheduling), food safety, packaging and labeling. These functions allow hubs to educate growers about Good Agricultural Practices (GAP), state food regulations, business opportunities, and consumer preferences. Third, food hubs have the ability to share information among growers, existing distributors, consumers, researchers and government officials. This includes promoting transparency about product origins, offering education and marketing tips about the superior quality of their Iowa products, and communicating with agencies about how to assist small farmers. Food hubs also offer researchers easy access to data that provides evidence of their contribution to the state's economy, along with information on production, marketing activities, labor needs and capacity.

Thanks to the leadership of ISUEO personnel, including Teresa Wiemerslage and Nick McCann, the Northeast Iowa Food and Fitness Initiative (NIFFI) has demonstrated best practices in local food supply chain development including the establishment of a food hub, piloting new approaches in selling to grocery stores, and working closely with local schools and institutional buyers. Their efforts illustrate how access to local food is impacting the local economy and job market. They estimate that in a six-county region (Allamakee, Chickasaw, Clayton, Fayette, Howard and Winneshiek):

- Local food sales to institutions have grown exponentially in recent years, including \$1.43 million in local food purchases by institutions in 2013. Luther College, with Sodexo's leadership, has reached the college's goal of buying over one-third of all food served on campus from local producers.
- Farmers are reporting increased sales. In 2013, 26 farms (or farm groups) reported \$8.6 million in sales.
- Between 2008 and 2013, 62 food system-related jobs were created and 63 new local food producers or food enterprises were started in the region.
- Sixteen schools purchased \$33,792 of food from northeast Iowa farmers in the 2013-14 school year. The NIFFI has facilitated more than \$100,000 in local food purchases by northeast Iowa schools since 2008.<sup>10</sup>

### **LFFI-funded ongoing projects**

#### **Scaling vendor-managed inventory systems to further leverage the competitive advantage of local foods** - PI: Nick McCann; LFFI funding: \$9,400; Leverage: \$208,000

This project was designed to improve the strength and efficiency of the sales relationship between food hubs and local retailers. A software program was developed to track sales of local food products by collecting sales information at the checkout lane of the grocery store. The software creates a daily report for the local food producer that tells how much of each product sold that day. The producer uses this information to determine how much product to deliver to the store to restock the shelves. This saves the grocer from having to place an order and is called a "vendor-managed inventory system."

The system is paired with a consignment agreement. In exchange for giving the farmer a higher price for

the products that do sell, the farmer and grocer agree that the grocer will pay only for the products that are purchased by the “sell-by” date. This greatly reduces risk for the grocer, because he/she will not take a loss on the unsold product, while increasing profitability for the farmer because the system ensures that very little product goes bad on the shelf prior to its sell-by date.

The software was tested first by one grocer and a local dairy that makes yogurt. Starting in August 2014, the vendor-managed inventory system will be tested on a larger scale with an estimated 30 to 40 fruit and vegetable farmers and four grocery stores in northeast Iowa. The pilot will last until the end of the produce season. Food will be delivered daily to the grocers by the Iowa Food Hub, a nonprofit food hub in northeast Iowa, to test the system and suggest improvements. The goal of the project is eventually to make daily deliveries of local foods to grocery stores on a long-term basis, giving farmers consistent markets for their products and expanding access to local foods in the places where most people buy their food.

## Project area 2: Beginning, Minority and Transitioning Farmers

The major challenges facing beginning farmers have changed little over the past several years. The rising costs of land, seed, inputs, equipment and the expense of paying for health insurance make it difficult to earn a living in agriculture. The needs of beginning, minority and transitioning farmers were identified as a target issue in the original Local Food and Farm Plan. ISU has taken a supportive role as opposed to a primary one in this area, because of the intensive work being done by our partners. However, when possible, support is provided (as shown by the project below) to initiatives that support economic development and job creation efforts related to new farmers.

### LFFI funded ongoing projects

**Small farm field and business apprenticeship** - PI: Diane Wieland; LFFI funding: \$6,824; Leverage: \$8,000

The Wallace Centers of Iowa launched an apprenticeship program in 2013 using LFFI funding. Four apprentices were trained in organic fruit and vegetable production at the Henry A. Wallace Country Life Center near Orient. They learned about all aspects of farming, including production, packing, marketing and business planning. They also visited other area farms to see farming operations in action.

Prior to 2013, the Wallace Centers had an internship program, but LFFI support allowed them to bring the program to a new level. Says Diane Wieland, director of the center, “We’d had interns before, but this grant allowed us to expand on the idea [...] We saw they needed more than work experience, but education and exposure to other farms.”

In 2013 four apprentices completed the program. One graduate is now farming and three others are engaged in agriculture in other ways, such as community gardening and visiting farms overseas. The apprenticeship program has four 2014 apprentices currently working to complete the program. Wieland expects the program to continue in 2015 and become an annual offering.

## Project area 3: Local Foods Incentive

LFFI currently has no ongoing funded projects related to local food incentives. We are partnering with

other organizations such as Iowa Department of Agriculture and Land Stewardship on programs such as Farm to School.

Farm to school programs enable children to have access to nutritious food while also benefiting communities and local farmers. In addition to supplying nourishing, locally grown and produced foods in schools, farm to school programming encourages and supports nutrition and agriculture education. By being exposed to taste tests, school gardens, composting programs and farm tours, children learn where their food comes from and how their food choices affect their bodies, environment and community.<sup>11</sup>

The Farm to School Network is a nationwide effort begun in the 1990s to connect schools and local farms with the goals of improving access to healthy food, providing educational opportunities and supporting local farmers. Tammy Stotts, Iowa's Farm to School Coordinator, is the person to contact if a school would like to establish a chapter through the Iowa Department of Agriculture.<sup>12</sup> Iowa Farm to School now has a Facebook page with regular features such as Garden Tips, Fun Fact Friday, photos showcasing IOWA, latest information on Farm to School initiatives, opportunities and contests (<http://www.iowaagriculture.gov/AgDiversification/farmToSchoolProgram.asp>).

According to Stotts, 27 Farm to School chapters have received more than \$116,000 in funding since 2007. Over 69,000 students in grades K-12 participated and during Farm to School month, the chapters spent \$15,100 for fresh/local fruits and vegetables. A school garden program called "A Garden is the Way to Grow" was started in 2012 and in three years, benefits have reached 93 schools and 16,677 students. A very popular initiative, "A" is for Apple, has grown from 13 schools and 1789 students in 2008 to 44 schools and over 5,000 students some years.

An excellent example of Iowa's farm to school efforts is the work being done by the Northeast Iowa Food and Fitness Initiative. School policies, customs, and practices have transformed dramatically as a result of policies on school gardens and the use of school garden produce in the school lunch program. More schools are beginning to incorporate local, healthy foods into school food menus. Furthermore, schools are supporting education, training, and networking to make safe, healthy, local food an important part of school food programs.<sup>13</sup>

#### *LFFI Impact Snapshot*

This evaluation of seven one-year food system projects, five completed and two ongoing, funded by the Local Food & Farm Initiative (LFFI) indicated that for every dollar of LFFI investment in these projects, another \$17.92 was leveraged by project leaders and their partners (see this publication on the website: [www.leopold.iastate.edu/LFFI-snapshot](http://www.leopold.iastate.edu/LFFI-snapshot)).

Additionally, the evaluation revealed that an integrated network of farmers, local food service providers, schools, and businesses create economic opportunities for farmers and small businesses alike.

- Twelve new partnerships were created as a result of the LFFI projects.
- A total of 39 unique organizations participated in LFFI projects (including groups that received LFFI funding).
- On average, LFFI grant recipients worked with five other civic, private or public sector organizations to accomplish the goals of each project.
- Twelve new jobs were created as a result of LFFI investment
  - Three new full-time, year-round jobs were created and nine other jobs (either full-time temporary or part-time temporary).
- Six aspiring farmers received on-farm training in local food production.

- Six farmers in north central Iowa are collaborating to market their products through package deals sold directly to consumers and sales to a grocery store and school.
- Two chefs are buying more local food after participating in the food hub workshop.
- One Iowa dairy now guarantees its product with grocers – meaning the grocer doesn't pay for product that gets outdated – as a result of participating in local foods marketing research conducted through a vendor-managed inventory system project. The dairy is enjoying record sales and continued growth.

## Iowa Food System Working Group (IFSWG)

### Overview of the IFSWG

The Iowa Food System Working Group (IFSWG) was formed to aggregate and share existing resources on local and regional food system development within ISU Extension and Outreach (ISUEO). This includes development of all four program areas and geographic regions of ISUEO. Members of the working group include Extension and university faculty in food safety, horticulture, value added product marketing, human health, economics, and other areas relevant to local food systems development. IFSWG connects ISUEO to civic organizations throughout the state, such as the Healthiest State Initiative and the Regional Food Systems Working Group (RFSWG). The work being done by the IFSWG provides strong support for LFFI programming.

### Outputs and outcomes of the IFSWG

The IFSWG is comprised of five separate committees with different goals and responsibilities. The information from these committees will be compiled on a website to be launched in late 2014. It will serve as a portal to share information with local food coordinators and ISUEO staff involved in food work and with the public. The website will include information and links that provide education and technical assistance gathered from all five committees: Curriculum, Grants, Partnership Development, Professional Development and Resources.

## Marketing and Food Systems Initiative (MFSI) of the Leopold Center

### Overview of the MFSI

The MFSI supports education, conducts research and facilitates partnerships to increase investment and support for local and regional food, fiber and energy enterprises. The MFSI competitive grant program issued close to \$1.1 million in grants between 2009 and 2013; much of this grant work directly or indirectly supported LFFI priorities.

The Regional Food Systems Working Group (RFSWG) was created by the Leopold Center in 2003. The goal of the working group is to provide a forum for the coordinators of Iowa's regional food groups to share information and learn from each other within the social context of local food systems. This type of collaborative work environment is referred to as a "community of practice." The MFSI has provided a majority of the funding for this group and it is included in the following discussion of outputs and outcomes of the MFSI. In addition, the MFSI has five new local food system projects targeting work in three areas: local food incentives through farm-to-school programs and sales to institutions, beginning farmers, and business development. The new projects within these areas complement the work already

taking place through ISUEO food systems programming.

### Outputs and outcomes of the MFSI

Seven MFSI grants related to local food systems awarded between 2011 and 2013 have been completed. These grant-funded projects were conducted throughout Iowa and reached 3,145 participants. Outputs include nine publications and one website. Those reached include students (2,230), farmers/aspiring farmers (528), food service personnel (25) and others (362). A total of \$171,892 was invested in these seven projects.

<b>Grant name</b>	<b>Principal investigator(s) and home organization</b>	<b>Location</b>	<b>LCSA MFSI investment</b>
Research and development of an online local foods buying club cooperative	Jason Grimm, Iowa Valley Resource Conservation and Development, and Jesse Singerman, Prairie Ventures, LLC	Amana	\$48,490
Des Moines farm to school pilot project: Local sourcing for special events and summer feeding	Hannah Lewis, National Center for Appropriate Technology	Des Moines	\$7,475
Fostering healthy diets in children through vibrant school	Hannah Lewis and Ann Robinson, National Center for Appropriate Technology	Des Moines	\$15,435
Record keeping education and insurance benchmarking for Iowa fruit and vegetable producers	Sally Worley, Practical Farmers of Iowa	Ames	\$25,000
Procurement tools to develop sustainable local food purchasing models for farm to school chapters	Jason Grimm, Iowa Valley Resource Conservation and Development	Iowa City	\$36,000
Micro-farming: Reducing rural and urban food deserts through job training	Matt Mancuso, Iowa Western Community College	Council Bluffs	\$16,994
Innovative equipment solutions to reduce costs and improve productivity for small-scale fruit and vegetable growers	Georgeanne Artz, Iowa State University	Ames	\$22,498
<b>Total investment</b>			<b>\$171,892</b>

#### **Research and development of an online local foods buying club cooperative**

An online local foods buying club, the Iowa Valley Food Cooperative (IVFC), was created after much research and planning. This grant supported the planning and start-up phases of the cooperative, which included assembling a board of directors, finalizing the cooperative's legal status, creating business

plans, implementing the use of a software package to facilitate transactions handled by the cooperative, moving the cooperative into its own space, and recruiting consumer and producer members. As a result the co-op has gained over 400 consumer members and offers a variety of products including fresh produce, meat, baked goods, and health and beauty supplies. Lessons learned through the process of creating the co-op as well as tools for starting similar ventures are documented in the Leopold Center publication “Starting an Online Food Co-op.” In addition, IVFC organizers have offered guidance to others around Iowa who are working to facilitate the sales and purchases of local foods.

Leverage: \$40,000 from three sources

**Des Moines farm to school pilot project: Local sourcing for special events and summer feeding**

Due to the significant volume of food needed, it can be difficult to include local foods in lunch programs at large school districts. The National Center for Appropriate Technology and FoodCorps chose to use several small pilot programs to help integrate local foods into the Des Moines Public Schools (DMPS) food service plans. First, local foods were introduced and sampled weekly at three summer feeding sites. Second, a “special event” local food lunch was served once at four schools during Farm to School month (October 2012). Finally, the DMPS Central Campus Culinary Arts program had a one-day event in which they prepared a local food lunch special that was served at the Central Campus Café. These events provided valuable lessons that will allow adaptations as DMPS seeks to expand its Farm to School program in subsequent years. The grant led to further work, also funded by the Leopold Center, called Fostering Healthy Diets in Children through Vibrant School Gardens.

Leverage: \$16,600

**Fostering healthy diets in children through vibrant school gardens**

FoodCorps members worked in six Des Moines Public Schools (DMPS) to build gardens, incorporate the garden activities into classroom curricula, teach nutrition education, and include local foods into school lunch menus and snacks. These schools served as demonstration sites for other DMPS schools. FoodCorps members conducted more than 736 educational activities reaching at least 2,230 students. The number of teachers incorporating the school garden into classroom curricula grew from 17 to 50 during the project span. Eighty-seven community volunteers also were involved with the gardens and 400 pounds of produce were harvested and used at the school or donated. Two schools involved with the project received Healthier U.S. School Challenge awards, which recognize schools that are creating healthy school environments and have committed to continue doing so. In addition, an inter-school peer learning network was created to offer support to schools implementing school gardens.

Leverage: \$34,464 from five sources

**Record keeping education and insurance benchmarking for Iowa fruit and vegetable producers**

Crop insurance options suitable for fruit and vegetable farmers currently are limited. One reason is a lack of available fruit and vegetable production and sales records that potential insurers can use as a basis for their insurance offerings to Iowa’s fruit and vegetable producers. To bridge this gap, Practical Farmers of Iowa (PFI) partnered with several fruit and vegetable farms to assemble detailed farm records. A total 439 farmers were trained on how to keep records that would meet Farm Service Agency requirements for acquiring crop insurance. Thirteen farm operations from that group, including 21 farmers, shared their completed records with PFI. The information was then shared with insurance agents and others involved in offering crop insurance for Iowa fruit and vegetable producers. Field days, webinars and workshops were held to disseminate record-keeping information to interested farmers.



Leverage: \$75,000 from Federal Risk Management Agency

**Procurement tools to develop sustainable local food purchasing models for farm to school chapters**

Many schools would like to purchase and use local foods as a part of their school lunch programs, but face difficulties to identify and procure local food. This project conducted interviews with national farm to school leaders to identify the best resources available to school food service departments to facilitate local food procurement. These resources (including several new tools were created by project participants) were collected and made available through a website ([www.ialocalfoodforschools.org](http://www.ialocalfoodforschools.org)). Among them were a regional school food safety checklist, a template for local food bid request form, a sample purchase agreement, and a sample farmer profile to be displayed in the school lunchroom. In addition, the project organizers worked with several local schools and farmers on outreach activities. This involved meetings to gain participant input, educational workshops on menu and crop planning reaching 44 farmers and 25 food service professionals, and farm tours. The project partnered with 11 individuals from seven schools, two food businesses or organizations, and eight farms. As a result, two schools began purchasing local foods and one started a school garden.

Leverage: \$12,000 total awarded to two schools by IDALS Farm to School Chapter grant

**Micro-farming: Reducing rural and urban food deserts through job training**

Lack of access to healthy food is a problem for rural residents of southwest Iowa. Iowa Western Community College (IWCC) addressed this issue while also filling a demand from aspiring farmers for more educational options. The Dream to Farm course was created and offered at IWCC to prepare students to produce food on small parcels of land for local markets. Of the 20 graduates, seven have launched their farm enterprises and seven others are preparing to do so. In addition, the curriculum was shared with three other community colleges, one of which already has offered a similar course. After receiving the Leopold Center grant, an additional grant was obtained so the course could be offered three more times in 2013 and 2014.

Leverage: \$16,050 from USDA RBEG

**Innovative equipment solutions to reduce costs and improve productivity for small-scale fruit and vegetable growers**

Small fruit and vegetable farms are often labor-intensive operations. As they seek to scale up production in order to reach larger markets, farmers must evaluate whether they can continue labor-intensive practices or save some labor through use of machinery. The project included two sets of case studies. In the first segment, research was conducted with five groups of farmers to explore how sharing farm machinery can help small-scale fruit and vegetable growers to ramp up their production at a reduced cost. Each group of farmers acquired one piece of machinery to be shared, and each group determined their own arrangement according to the group needs. Results are shared in the *Machinery Owning Manual for Fruit and Vegetable Growers* ([www.leopold.iastate.edu/machinery-sharing-manual](http://www.leopold.iastate.edu/machinery-sharing-manual)), which offers tools to help growers determine which arrangements are most appropriate and create a shared machinery use agreement. It includes worksheets for calculating each member's annual contribution to the cost of maintaining and operating the machine and for selecting the best organizational structure under which to share the equipment. The second set of case studies investigates how six farmers made decisions regarding machinery needs and acquisition. Results are shared in *Potential for Machinery: A Case Study of Fruit and Vegetable Growers in Iowa* ([www.leopold.iastate.edu/machinery-case-study](http://www.leopold.iastate.edu/machinery-case-study)).

## Publications developed July 2013-June 2014

Several publications on the different aspects of local food system work, not related to the MFSI competitive grant program, have been added to the Leopold Center for Sustainable Agriculture's website this past year. All can be found by title here: [www.leopold.iastate.edu/pubs/alpha](http://www.leopold.iastate.edu/pubs/alpha):

### **June 2014 - Production Planning for Aggregators**

Savanna Lyons, LCSA; and Mary Oldham, Value Chain Cluster Initiative

### **June 2014 - Machinery Sharing Manual for Fruit and Vegetable Growers**

Georganne Artz and Linda Naeve, ISU Department of Economics and ISE Extension and Outreach

### **April 2014 - Iowa CSA farms**

Savanna Lyons and Geetha Iyer, LCSA

### **April 2014 - Diversity of Conventional Farming in Northeast Iowa: Why Do Farmers Farm the Way They Do?**

Alice Topaloff, LCSA intern

### **February 2014 - Local Food & Farm Initiative Program Outcomes and Impacts, 2011-2014**

Corry Bregendahl and Arlene Enderton, LCSA

### **January 2014 - Potential for Machinery: A Case Study of Fruit and Vegetable Growers in Iowa**

Nicholas Pates and Georganne Artz, ISU Department of Economics

### **November 2013 - 2012 Economic Impacts of Iowa's Regional Food Systems Working Group**

Corry Bregendahl and Arlene Enderton, LCSA

### **November 2013 - Impact Brief: 2012 Economic Impacts of Iowa's Regional Food Systems Working Group**

Corry Bregendahl and Arlene Enderton, LCSA

### **November 2013 - Post Harvest Handling Decision Tool**

Chris Blanchard

### **September 2013 - Local Food and Farm Program Final Report – 2013**

Craig Chase, Lynn Heuss and Laura Kleiman, LCSA

### **July 2013 - Starting an Online Local Food Co-op**

Jesse Singerman, Prairie Ventures, LLC

## Plan of Work for 2014

Each time local food system supporters gather, such as at this year's "It's Your Business" conference, two primary concerns emerge. First, there is an ongoing need for a more comprehensive database for local foods resources. We are working to launch a website that will provide this information. The second issue is the benefit of bringing together a core group of fundamental partners to take local food

system development to the next level. Having a diverse group of partners working on the local, regional and state levels provides greater stimulus for sustainability and for developing a vision that includes many organizations whose missions align with each other.

The goal for this group of partners is to develop a plan for increased collaboration and integration of current and future efforts statewide. The result would be raised awareness about the different benefits and challenges surrounding a productive and valuable local food system along with the infrastructure necessary to sustain it. A new article by sociologists Mary Emery and Corry Bregendahl emphasizes the importance of this kind of partnership development: “The process of building relationships is critical to successful community and policy change work (p. 13).” They also say, quoting work from another study by Kania and Kramer, “The expectation that collaboration can occur without a supporting infrastructure is one of the most frequent reasons why it fails” (p. 2).<sup>14</sup>

The potential of this coalition is to chart a course over the next three to five years to implement changes and promote programs for our Iowa local food system. Among the potential benefits are job creation and positive financial outcomes that will in turn revitalize many of our rural communities. The main goals will be to 1) strengthen and deepen partnerships through coalition building, thus encouraging the creation of sustainable funding streams for local food coordinators, and 2) generate a business plan that incorporates food hubs as the centerpiece of local foods activity in Iowa.

### **Coalition Building to support local food coordinators**

Coalition building initiatives have been initiated with ISUEO and partner groups in north central Iowa (Mason City area), northeast Iowa (University of Northern Iowa), Dubuque, and central Iowa (Ames, Boone, Marshall county area). Later in 2014, efforts will begin in southeast Iowa, southwest Iowa and northwest Iowa. These sessions, based on the example of the Northeast Iowa Food and Fitness Initiative and relying on many of the same principles used in that area, will eventually lead to public-private partnerships that will create sustainable funding streams for local food coordinators.

A Local Food Coordinator Factsheet is nearing completion highlighting the coordinators’ role and necessity. The factsheet will include examples of what current coordinators do around the state, a sample job description, reasons to hire a coordinator, and ways to fund these positions. The factsheet will be available on the MFSI page of the Leopold Center website when completed.

### **Food Hub business development tools**

Food hub businesses springing up nationwide are closing the supply chain gap between small local farmers and previously untapped food buyers, such as restaurants, institutions, retailers and distributors. Few training resources exist specifically to serve this new business sector, so ISUEO and the Leopold Center are supporting the production of a series of research papers and practical toolkits on food hub management. The research methodology for these tools draws on local and national information sources, lending it local as well as national relevance. The Iowa Food Hub, located in Decorah, is serving as a “demonstration hub” (similar to a demonstration farm) that tests and demonstrates innovative practices for food hub supply chain development. The Iowa Food Hub was formed with the support of ISUEO and the Leopold Center, so it can take more risks than a typical food hub. This kind of backing allows the hub to exhibit a rare degree of transparency in its operations by documenting successes, failures, and lessons learned in order to benefit other emerging hubs. A series of Iowa Food Hub toolkits will be produced and shared with other emerging food hubs. This work is

complemented by two additional projects that investigate the growth trajectory of established hubs around the country, using data from phone interviews and research visits with 20 successful hubs to determine how their lessons may be applied in Iowa.

Food hub publications in progress will cover how to develop a pre-packed local food box program for employees to pick up at their work sites, farm to school sales for food hubs, best practices for food hub accounting, food hub decision-making structures, and financial planning for food hub growth. Much of the resulting work is being translated into workshop form for food hub managers, and the Leopold Center's partnership with the Wallace Center at Winrock International also provides a national forum for sharing these tools through webinars and conferences.

### **Incubator Kitchens**

Thanks to the rising demand for local foods, raw products are more readily available in season. However, an unmet consumer demand exists for locally processed foods. Farmers become interested in processing for many reasons: to sell value-added products (additional income), extend the availability of products beyond harvest season (canning, freezing, etc.), and avoid waste (using imperfect products). Shared-use kitchens allow interested individuals to start a food processing business without the huge capital investment of acquiring their own facility. Caterers, specialty food producers, chefs, home gardeners, farmers, etc., can see the value in shared-use kitchen facilities. Shared-use kitchens (or incubator kitchens) are starting up all over the country. An Econsult study ([http://www.econsultsolutions.com/wp-content/uploads/2013/08/ESI-SharedKitchenReport\\_2013.pdf](http://www.econsultsolutions.com/wp-content/uploads/2013/08/ESI-SharedKitchenReport_2013.pdf)) reported a dozen such facilities in 1999 and over 130 in 2013. There are no active shared kitchens in Iowa; however, several local organizations have shown interest in developing such facilities.

To address this gap in services for local food processing, ISUEO and the Leopold Center are creating a toolkit that provides information, resources, and a step-by-step guide to developing a shared kitchen. This toolkit will be available November 2014.

### **Planned evaluation**

#### **RFSWG Impact Snapshot**

Regional Food System Working Group coordinators cooperated with Leopold Center evaluators to conduct the first evaluation of their work. The same set of questions was used to collect information from every region of Iowa. Surveys were administered to local food producers, institutions and intermediated markets (IIMs), such as grocers and restaurants that purchase local foods and who are participating in their local RFSWG group.

The evaluation process was repeated in spring 2014 to gather data from 2013. One hundred twenty farmers and 73 institutions or intermediated markets responded. Findings from the evaluation are expected to be released in October 2014.

### **Urban Agriculture Toolkit**

The Agricultural Urbanism Toolkit is an ISU Community Design Lab project funded through a Leopold Center MFSI grant. The toolkit features a process that promotes public interest design through engagement with community leaders. It assists communities in identifying assets, limitations, community stakeholders and potential for local food system revitalization. This holistic design incorporates community values around food, and identifies potential design solutions and strategies

that incorporate residents' insights and knowledge about their communities. These design strategies incorporate tactics including: edible gardening, community and school gardens, urban farms, public and edible landscaping, community supported agriculture, local markets, food hubs, food enterprise centers, and other business development activities and projects.

Three steering committee meetings have been held with the partner communities of Cresco, Cedar Rapids and Des Moines. Each community is unique in scale, character, and local food system interests. Initial meetings involved discussion on how to capitalize on existing physical amenities and programming to further incorporate local food system development. Potential activities include food boxes and food hub development, community kitchens, community and school gardens and other connections to existing programs in schools, the city, etc. While each partner community is unique, common threads have been discovered that will enhance the toolkit process as a transferable model for understanding community goals, opportunities, limitations, and strategic design scenarios for future food systems. For example, each community can identify with the need for marketing of local food systems and creating a brand for the development strategy that is chosen.

### **Sustainable funding**

Staff of the LFFI will continue to work toward long-term sustainability of funding, and legislative support is vital to the progress being made toward a resilient local food system. To this end, discussions began in fall 2013 with ISU and community foundations on how to develop a strategy to increase public investment in local food system development work. Once the marketing materials are developed, potential donors will be identified and approached to determine the effectiveness of the materials.

### **The Program Team**

#### **Craig Chase – Local Food and Farm Initiative state coordinator**

Chase, in addition to being the state coordinator, is currently the program manager of the Marketing and Food Systems Initiative for the Leopold Center for Sustainable Agriculture. He also serves as the lead in the ISU Extension Iowa Food System Working Group, focusing on local food system development.

#### **Lynn Heuss – Local Food and Farm Initiative assistant state coordinator**

Heuss is the Local Food and Farm Program assistant coordinator, and a program coordinator at the Women, Food and Agriculture Network.

#### **Corry Bregendahl and Arlene Enderton – Local Food and Farm Initiative evaluation team**

**Bregendahl** is an associate scientist at the Leopold Center where she leads evaluation of local and regional food system initiatives and projects, Center-funded programs, and externally funded food- and agriculture-related efforts. She co-authored the Iowa Food and Farm Plan and currently is leading evaluation for the Northeast Iowa Food and Fitness Initiative, the Regional Food Systems Working Group and the Iowa Food System Working Group.

**Enderton** joined the Leopold Center as a program assistant in 2013. She assists in evaluation efforts by conducting interviews, creating surveys, analyzing data and writing reports. She is involved in evaluation of the Northeast Iowa Food and Fitness Initiative, the Regional Food Systems Working Group, the Iowa Food System Working Group, and Leopold Center grants programs.

**Courtney Long – Design Fellow**

Long is a Design Fellow with the Iowa State University Community Design Lab and the Leopold Center for Sustainable Agriculture. Her project involvement includes integrating local and regional food systems, community health and wellness, and sustainable infrastructure into community design.

**Savanna Lyons – Graduate Research Assistant**

Lyons is tasked with the Local Food and Farm Initiative. Her research focuses on best practices in aggregation and distribution of local foods, with an emphasis on food hub financial management and coordinated production planning among farmer groups.

**Alice Topaloff – Marketing and Food System Initiative Program Assistant**

Topaloff joined the Marketing and Food System Initiatives at the Leopold Center as a program assistant in 2014. Projects include value-added strategies, economic development, and beginning farmers - focusing on the development of toolkits and curriculums for disseminating knowledge on local food systems.

## Local Food and Farm Program Council

A local food and farm program council was established by the Initiative legislation to “advise the local food and farm program coordinator carrying out the purpose and goals of the {Initiative}”. The council consists of six members representing different aspects of Iowa’s local food systems. The Council meets quarterly and includes:

- **Maury Wills**, Iowa Department of Agriculture and Land Stewardship,
- **Tony Thompson**, Iowa Farmers Union,
- **Warren Johnson**, Iowa League of RC&Ds of the Natural Resources Conservation Service,
- **Teresa Wiemerslage**, Iowa State University Extension & Outreach and the Northeast Iowa Food and Farm Coalition,
- **Barb Ristau**, Iowa Farmers Market Association, and
- **Marcy Billings**, Loffredos.

The LFFI staff met with the Advisory Council quarterly this past fiscal year. Detailed discussions were conducted on past actions and strategies as well as future strategies. The Council is taking an active and prominent role in advising the staff specifically on how to move forward with the Program and the further development of the Iowa local food system in general.

<sup>1</sup> USDA. 2012 Census of Agriculture U.S. Summary and State Data (No. AC-12-A-51): [www.agcensus.usda.gov](http://www.agcensus.usda.gov).

<sup>2</sup> “1998 Survey of Buying Power.” 1998. Sales and Marketing Management.

<sup>3</sup> Swenson, D. 2011. “Exploring Small-Scale Meat Processing Expansions in Iowa.” Leopold Center for Sustainable Agriculture: [www.leopold.iastate.edu/small-scale-meat-processing](http://www.leopold.iastate.edu/small-scale-meat-processing)

<sup>4</sup> Swenson, D. 2011. “Measuring the Economic Impact of Fruit and Vegetable Production in Iowa Considering Metropolitan Demand.” Leopold Center for Sustainable Agriculture. Found at [www.leopold.iastate.edu/measuring-impact-metro-demand](http://www.leopold.iastate.edu/measuring-impact-metro-demand)

<sup>5</sup> 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. Found at [www.leopold.iastate.edu/selected-measures](http://www.leopold.iastate.edu/selected-measures)

<sup>6</sup> Swenson, D. 2013. “Factors Constraining Iowa Labor Force Growth Through 2020.” Department of Economics, Iowa State University. Found at <http://www.econ.iastate.edu/sites/default/files/publications/papers/p16040-2013-03-13.pdf>



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<sup>7</sup> Pirog, R. 2011. "Learning about Local: A Resource Guide to Iowa Organizations and Programs Supporting Local and Regional Food Systems. Leopold Center for Sustainable Agriculture. Found at [www.leopold.iastate.edu/learning-about-local](http://www.leopold.iastate.edu/learning-about-local)

<sup>8</sup> Local Food and Farm Program Preliminary Report to the Iowa Legislature. 2012. Leopold Center for Sustainable Agriculture. Found at [www.leopold.iastate.edu/2012-LFFI](http://www.leopold.iastate.edu/2012-LFFI)

<sup>9</sup> "Agriculture Secretary Tom Vilsack Highlights Economic Opportunity and Job Creation of Regional Food Hubs." 2013. United States Department of Agriculture. Found at <http://www.usda.gov/wps/portal/usda/usdahome?contentid=2013/05/0107.xml>

<sup>10</sup> Personal communication, Teresa Wiemerslage, Iowa State University Extension and Outreach, August 28, 2013

<sup>11</sup> "Iowa Farm to School Chapter Initiative." 2013. Iowa Department of Land and Stewardship. Found at <http://www.agriculture.state.ia.us/agdiversification/farmtoschoolprogram.asp>

<sup>12</sup> National Farm to School Network. 2013. Found at <http://www.farmtoschool.org/>

<sup>13</sup> Northeast Iowa Food and Fitness Initiative. 2013. Found at <http://www.iowafoodandfitness.org/site/school.html>  
Accessed 26 Aug. 2013.

<sup>14</sup> Emery, M. E. and C. Bregendahl. 2014. Relationship building: the art, craft, and context for mobilizing the social capital necessary for systems change, Community Development.