

Connecting Local Food Producers with Institutions in Dubuque

An Iowa Initiative for Sustainable Communities Project
in Partnership with Dubuque County Extension and Outreach
for the Sustainable Dubuque Initiative

May 2012



IOWA STATE UNIVERSITY
University Extension



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The Local Food Team

The authors of this report are referred to as the “Local Food Team,” which is one of five teams working for the University of Iowa’s Iowa Initiative for Sustainable Communities in the 2011 – 2012 academic year. All groups are composed of master’s degree candidates in the University of Iowa’s School of Urban and Regional Planning. The Local Food Team is made up of a diverse group of graduate students with varied backgrounds, experience, and urban planning concentrations. Overall, this diversity has contributed to the success of the team in achieving project outcomes. The members of the Local Food Team are shown below in a photo taken after the group presented their project findings to the Dubuque City Council in May 2012.



Back row from left to right: Evan Aprison, Scott Annis, Erik Sampson, and Corey Fischer
Front row from left to right: Alicia Presto (Rosman), Stephanie Meder Lientz, and Eric Wilke

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The Local Food Team (LFT) would like to thank several individuals and organizations that provided guidance and constructive feedback throughout the project. Without these individuals and organizations, the project would have not been as successful or contain the aspects of longevity that we have managed to produce.

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The Local Food Team also wishes to extend thanks our project partners, Jason Neises and Bill Petsche from Dubuque County Extension and Outreach Office. Jason and Bill also provided valuable guidance throughout the project. Their specialized knowledge of local food systems and the Dubuque and Driftless Area gave our project a definite direction and contributed to its overall success. The team also thanks them for their assistance with outreach efforts including a survey and networking event.

The Local Food Team thanks each of the Dubuque colleges and universities for being the primary participants in the project. Individuals from the colleges and universities include Chef Andy Mettert from University of Dubuque, Susan Dubois from Loras College, and Matt Ricketts from Clarke University. The team is also thankful for the encouragement from college and university administration throughout the project, and the involvement of student groups at each institution.

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Executive Summary

Throughout the 2011-2012 academic year, students from the University of Iowa's School of Urban and Regional Planning partnered with the City of Dubuque to undertake a variety of planning projects that would help the city become more sustainable as a part of the Iowa Initiative for Sustainable Communities. One of these projects dealt with local foods in the region and students partnered with the Iowa State University Dubuque County Outreach and Extension Office to determine the opportunities and challenges for local collegiate institutions to begin providing locally produced products in their dining services.

This Local Food Team (LFT) performed background research and conducted expert interviews with individuals knowledgeable in the local food systems as well as those from other universities that had successfully developed a local food program. "Best practices" research from other successful local food programs was then used to develop a survey distributed to local producers around the Dubuque area to determine overall interest in selling to institutions and what barriers and challenges they saw in successfully partnering with the institutions. The Best Practices research also determined that the most successful collegiate local food programs began with building strong relationships between dining services coordinators and the producer providing the local product. This led to the organization of a networking event in which

dining services coordinators and chefs from each of Dubuque's three colleges and universities would have the opportunity to start developing positive relationships with local producer's interest in selling their products to them.

Overall, the product deliverables included an action plan that provides a step-by-step guide for local institutions interested in creating a local food program as well as to producers interesting in selling more of their products to institutions. This plan also includes a guide to local food handling and safety regulations as well as information on educational resources and funding opportunities for all stakeholders. This plan also provides recommendations on how county and city governments, the local extension office and the general public can continue to promote and increase the consumption of locally produced products.

Other deliverables include marketing material to help raise awareness for local foods in the community and a local food resource map which includes the locations of food advocacy groups, producer cooperatives, and organization that support sustainable agriculture. All of these items were delivered to both the City of Dubuque and the Dubuque County Extension office for future use. These materials are not only available to institutions of higher education but can be used by any larger institution interested in developing a local food program.

1 The Project

In 2006, the City of Dubuque made sustainability an official city priority through the establishment of the Sustainable Dubuque Initiative. This initiative is a holistic approach to creating a sustainable city with social and cultural vibrancy, environmental integrity, and economic prosperity. As defined by the City, an essential element to creating a Sustainable Dubuque is increasing the production and consumption of local food. Creating and operating farmers markets, community supported agriculture (CSA) programs, and community gardens are the common approach to bolstering local food consumption. These direct-to-consumer approaches are already well-established in Dubuque.

A higher impact approach to increasing the consumption of local food is to expand the market for local food producers to sell their products to large institutions like colleges and universities that feed hundreds and even thousands of people every day. Working with Iowa State University Extension, the primary purpose of this project was to connect the food producers of the Driftless Area—the Iowa, Illinois, Minnesota, and Wisconsin area known for its deep river valleys—with three colleges and universities located in Dubuque.

The three institutions involved in this project—Loras College, Clarke University, and the University of Dubuque—were interested in creating and implementing a local food program but were unsure of how to begin the process and address their initial concerns. Throughout the project, the Local Food

Team (LFT) worked with dining services staff at the three Dubuque colleges and universities to discover their capabilities, needs, and barriers to success. The LFT researched best practices at colleges and universities that have successfully incorporated local food into their dining options. The LFT also sought guidance from agriculture-related organizations and professionals in the local foods community.

In addition to dining services staff, the LFT worked closely with an undergraduate intern and student groups from the three colleges and universities to gauge student demand for local food products and learn about their ideas for incorporating local food into their dining options. Throughout the project, it was important to understand and incorporate the consumer's perspective in project outcomes.



Approaching the project from the producer perspective, the team administered a survey to gauge interest in selling products to Dubuque institutions and learn about the main challenges and needs associated with being a local food producer in the Driftless Area. The LFT also explored local, state, and national policies that may either encourage or discourage the success of local food production and consumption. To identify existing resources, the team researched educational programs and financial assistance for producers, processors, and communities.

An additional goal for the project was to improve local food systems education and marketing in the Dubuque area. This involved combining the various local foods messages in the Dubuque area in order to better educate the public about the benefits of supporting local food. Research included the proven benefits of local food—social, environmental, and economic—and examples of successful local food programs in the Driftless Area and beyond. To further enhance education and marketing, the LFT created a geographic database of the local food system-related organizations and processing facilities in the Driftless Area.

Ultimately, this project yields several deliverables that are tailored to achieving the goal of connecting local food producers and educational institutions in Dubuque and educating the public about the benefits of local food systems. To combine all of the valuable information and resources compiled throughout the project, the LFT created an action plan for the colleges and universities in Dubuque, producers, students, and local government and organizations to successfully implement institutional local food programs. In addition, certain chapters in the action plan will identify grant opportunities, regulations, educational resources, and solutions to overcome barriers.

Another major outcome of this project is a networking event for institutions and producers to meet and discuss potential business partnerships. The Local Food Team organized and facilitated this event, which will likely become an annual event in the future. Finally, the marketing and education component of the project consisted of creating a database of local food groups and resources throughout the Driftless Area, which is geared toward providing information to producers, and a compilation of messages that can be used in future local foods marketing efforts for a range of audiences.

2 Project Area

Dubuque is located within a region known as the Driftless Area, which includes almost 29,000 square miles of land in four different states: Iowa; Minnesota, Wisconsin, and Illinois.¹ The map in Figure 1 shows the boundaries of this region. The name of the area is derived from the fact that the land was not affected by glaciation during the last ice age, and retained its rugged terrain and deep river valleys.² Although the Driftless Area is fragmented by political boundaries, there are several initiatives and organizations that have been formed to provide support at a regional level. These groups include: the Driftless Area Initiative, which seeks to optimize the environmental and economic health of the region; and the Driftless Region Food & Farm Project, which has a mission to support local food producers in the area.

The local food team sought to contact local food producers located throughout the Driftless Area, and collect information regarding their operations. The partners at Dubuque Country Extension wanted to expand the area that producers were drawn from to encompass the entire Driftless Area. This was viewed as a necessary step, as all of the food needs of the

three Dubuque institutions could not be met in the immediate local area.

Figure 1: Driftless Area



Source: Driftless Area Initiative³

¹ Driftless Area Initiative. *Defining the "Driftless Area"*. http://www.driftlessareainitiative.org/aboutus/defining_driftless.cfm (accessed May 10, 2012).

² Driftless Region Food & Farm Project. *About*. http://www.driftless.wisc.edu/?page_id=2 (Accessed May 10, 2012).

³ United States Geological Survey website, http://www.umesc.usgs.gov/terrestrial/migratory_birds/habitat_grassland_bird_abundance.html (Accessed 5/9/2012).

3 Project Methodology

The basis of the Local Food Team's (LFT) methodology for this project was researching best practices and learning directly from local food producers, institutions, consumers, agriculture-related organizations in Iowa and the Driftless Area, and professionals well-known in the local food community. The knowledge gained from these pursuits were used more than a traditional literature review in advancing overall understanding of issues relating to local food systems. The LFT relied primarily on this approach because the group was interested in tailoring the work directly to the needs of the Driftless Area in order to avoid providing a hypothetical report of limited usefulness.

On the other hand, a literature review was used to supplement research of certain topics that are more complex, like cooperatives, food regulations, and safety guidelines, because it requires much more than a conversation for a full understanding. This method was also helpful in gaining insight when the group could not gain access to an expert in a particular area of study. A literature review was also used to identify local food-related research and statistics to support the benefits of local food systems.

Other methods of research included gathering primary data through surveys sent to all known local food producers in the Driftless Area. The purpose of this survey was to gauge each

producer's interest in attending an institution-producer networking event and their overall challenges and needs as a local food producer. The purpose of the latter information is to help Driftless Area organizations determine what type of additional support may be beneficial to local food producers in the future.

Throughout the project, the LFT continued to build relationships with stakeholders through not just surveys but also meetings with dining services staff at institutions and an institution-producer networking event. Meetings with dining services staff helped identify their concerns and assist the colleges and universities in developing a local food program strategy. The networking event, on the other hand, provided an opportunity for the team to foster mutual understanding and provide an opportunity for institutions and producers to discuss potential business partnerships.

Throughout the entire project, the Local Food Team worked closely with project partners at Dubuque County Extension, Jason Neises and Bill Petsche. The LFT had also planned to work closely with a newly hired local food coordinator but this individual will not be hired until after the LFT is no longer responsible for the project. In the end, this local food coordinator will ultimately be responsible for ensuring the sustainability of this project.

4 Benefits of Local Food Systems

Environmental Benefits

When compared to a conventional food system, there are significant and numerous environmental advantages that a local food system provides. Many of these advantages stem from the fact that food purchased locally tends to be grown on smaller farms that rely more on human labor than machines and chemicals. As one expert states, “local food markets typically involve small farmers, heterogeneous products, and short supply chains in which farmers also perform marketing functions, including storage, packaging, transportation, distribution, and advertising. According to the 2007 U.S. Census of Agriculture, most farms that sell directly to consumers are small farms with less than \$50,000 in total farm sales.”⁴ Certainly, locally produced food items can make use of the same farming techniques that conventional, large-scale farms use. Yet, evidence indicates that local farms also tend to be small and organic farms.

The environmental benefits of small and organic, as opposed to large and conventional, are numerous. These benefits include reductions in energy use, emissions, and chemical and waste runoff, and an increase in biodiversity. Although one cannot assume that each local food producer necessarily

⁴ Steve Martinez et al., “Local Food Systems: Concepts, Impacts, and Issues,” *USDA Economic Research Service* 97 (2010), 37.

makes only positive environmental contributions, evidence suggests that the local food system on a whole is more environmentally-friendly than the conventional system.

To be more specific, the most direct environmental benefit of the local food system is a reduction in energy use. It is well-documented that local food travels a shorter distance to reach its consumer. For example, a 2003 study in Iowa found that an average conventionally-produced food item travels about 1,500 miles, which is roughly 27 times as far as an average locally-produced food item.⁵ This is roughly 50 percent farther than the average distance traveled in 1979. However, the study mentioned only used food items that were produced in the United States, so the number of miles that conventionally-produced food items travel is actually much higher since many products are imported. Current studies estimate that the transportation of food accounts for about 5% of overall emissions, and the packaging of food contributes about 7% of overall emissions.⁶ The long-term implications of this system

⁵ Rich Pirog, “Checking the Food Odometer: Comparing Food Miles for Local versus Conventional Produce Sales to Iowa Institutions,” (Ames, IA: Leopold Center for Sustainable Agriculture, 2003), 4-5.

⁶ Center for Health and Global Environment, “Local and Urban Agriculture,” Harvard Medical School, 2011,

suggest a high dependence on oil as well as a significant contribution to global climate change.

Aside from the transport of food from the field to the dinner table, conventional farming techniques use a large amount of energy.⁷ Fossil-fuel derived synthetic fertilizers and pesticides require a significant amount of energy, and actually may contribute more to global climate change than the energy required for transportation.⁸ Although some local farms may still use similar inputs, the majority of local farms are much smaller scale and rely much more on labor than on machines and chemicals.

Similarly, runoff is reduced in a local food system. Large, conventional corn and soybean farms and large confined animal feeding operations (CAFOs) have been a major source of non-point source water pollution, and have made significant contributions to the dead zone in the Gulf of Mexico.⁹ Small scale, labor-focused production methods that locally produced food usually employs are much smaller

<http://chge.med.harvard.edu/topic/local-and-urban-agriculture> (Accessed 3/28/2012).

⁷ David Pimentel et al., "Environmental, Energetic, and Economic Comparisons of Organic and Conventional Farming Systems," *Bioscience* 55(2005): 7.

⁸ Mahadev Bhat et al., "Energy in Synthetic Fertilizers and Pesticides: Revisited," (Final Project Report, University of Tennessee, 1994), 1.

⁹ Andrew G. Wright, "A Foul Mess: EPA takes Aim at Factory Farms, the No. 1 Water Polluter in the U.S.," *Engineering News-Record* 243 (1999), 15.

contributors to runoff, and often recycle waste as fertilizer eliminating the need for chemical alternatives.

To clarify, the main reason conventional farming contributes so much to chemical runoff is that it extracts the same nutrients from the soil year after year, which depletes the soil's food production capability prompting the use of cover crops and chemicals to provide the needed nutrients.¹⁰ Local food production, which tends to be heterogeneous, helps avoid the need for cover crops and chemicals.

Lastly, local food systems increase biodiversity. Monoculture based agriculture can lead to significant, and often overlooked environmental consequences. For example, lack of crop diversity makes it difficult for certain ecologically important species to survive, such as bees.¹¹ As a result, bee populations are dwindling in the Midwest, which makes it difficult for plant species dependent upon bees to survive. This lack of genetic diversity of plants carries the negative consequences of losing certain types of nutrient rich produce.

¹⁰ David Hennessey, "On Monoculture and the Structure of Crop Rotations," (Working Paper, Iowa State University, 2004). http://www2.econ.iastate.edu/research/webpapers/paper_12004.pdf (Accessed 3/27/12).

¹¹ The Land Stewardship Project, "Conservation Stewardship Program Fact Sheet #20, Pollinators in Peril: Diverse Farms can help Key Beneficial Insects," http://www.landstewardshipproject.org/pdf/factsheets/20_pollinators_in_peril_2010.pdf, (Accessed 3/17/12).

Moving away from monoculture farming may reverse the damage done to our dwindling varieties of produce. “On average, across all crops grown in the US, over 90% of the varieties grown 100 years ago are no longer in commercial production or maintained in major seed storage facilities.”¹² A local food system requires a heterogeneous array of crops and may help preserve some heirloom seeds and varieties before they are lost. Having a strong diversity of crops on the landscape will help retain a strong, vibrant ecosystem.

Economic Benefits

Perhaps the strongest argument for purchasing local food is the economic benefits. Research has shown that money spent on locally-produced items tends to re-circulate throughout the local and regional economy rather than being spent outside the area.¹³ In other words, consumers who spend money on locally produced food are keeping their earnings inside the local economy by supporting these local producers. More specifically, every dollar that is spent on local food from a farmer from the Dubuque area is more likely to be re-spent at another Dubuque business.

¹² Patrica S. Muir, “Diminished Crop Diversity,” <http://people.oregonstate.edu/~muirp/cropdiv.htm> (Accessed 3/25/12).

¹³ Dave Swenson, “The Economic Impacts of Increased Fruit and Vegetable Production in Iowa,” (Prepared for the Regional Food Systems Working Group and the Leopold Center for Sustainable Agriculture, 2005), 11.

A Leopold Center research project determined that the base multiplier of local farms is 1.92. This means that for every dollar spent on a local food product, 92 cents of it will re-circulate throughout the local economy.¹⁴ Similarly, the base multiplier for the average regional grain farm is 1.35, which means that much more of the money is exported out of the local economy. Other studies have also found that local food systems retain more income in an economy and retain more jobs in a community than their conventional food system counterpart.¹⁵

The economic benefits of local food were estimated specifically for the Dubuque economy. Based on a population of 57,637, Dubuque spends roughly \$145 million on food each year. Most likely, 90% of that income currently flows out of the Dubuque economy. If just 15% of food were purchased locally, this would create an estimated \$17 million in direct and indirect economic output to the Dubuque economy.¹⁶ Achieving 15% local food consumption is an attainable goal in the long-run, but institutions can have a much quicker impact. For example, if Loras College, The University of Dubuque, and Clarke University could each consume roughly 15% of their

¹⁴ Leopold Center for Sustainable Agriculture, “Food Facts: Results from Marketing and Food Systems Research,” Ames, IA: Leopold Center, 2009), 5-6.

¹⁵ Jeffrey K. O’Hara, “Market Forces: Creating Jobs through Public Investment in Local and Regional Food Systems,” (Cambridge, MA: Union of Concerned Scientists Publications, 2011), 16.

¹⁶ Ken Meter, interview by author, Iowa City, IA, October 27, 2011.

food locally, this would create roughly \$1.1 million in direct and indirect economic output for the City of Dubuque. According to Ken Meter, president of the Crossroads Research Center, the economic benefits of local food consumption are in part due to increased employment and labor income from the local food system.

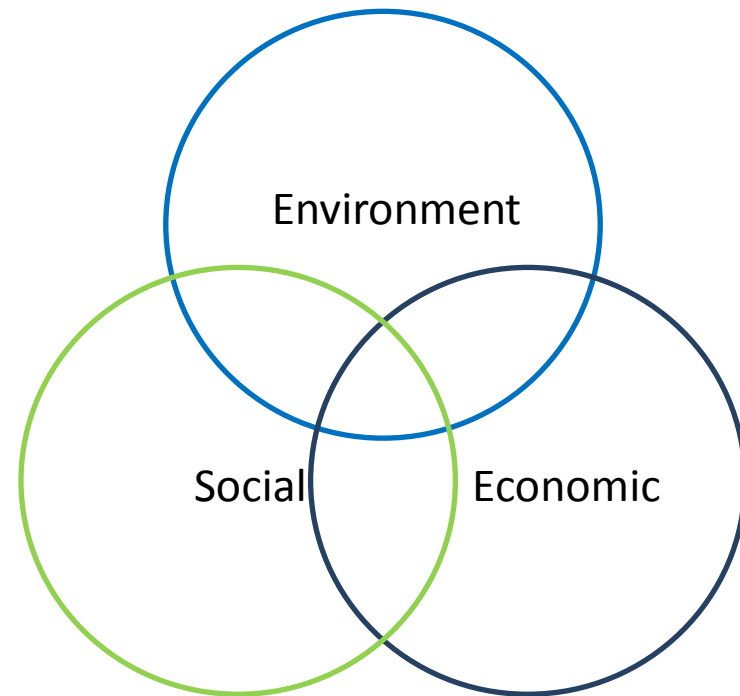
Similarly, empirical evidence from studies completed in 2005 argue that if just 25 percent of fruits and vegetables consumed in Iowa were produced in Iowa, it would result in \$140 million in increased output and 2,032 more jobs.¹⁷ Regardless of the exact numbers, it is clear that purchasing and producing local food benefits the Dubuque and Driftless Area economy.

Social, Health, and Safety Benefits

Aside from economic and environmental benefits, a local food system can provide other types of benefits related to social well-being, health, and food safety encompassing all aspects of sustainability. Many of the social-related benefits of local food are difficult to quantify, it is clearly shown through research that a local food system has advantages when compared to a conventional food system.

¹⁷ Swenson, 14.

Figure 2: Elements of Sustainability



Source: Author, 2012

An increase in social capital is most cited as the primary benefit of a strong local food system.¹⁸ Consumers are empowered through their ability to directly interact with food producers and other consumers, e.g. ask questions and make requests. As a result, consumers can acquire more knowledge about the food they are consuming and the local food system

¹⁸ O'Hara, 26.

they are supporting. For example, one study found that at supermarkets, only 9 percent of customers interact with other customers, and 14 percent interact with an employee.¹⁹ Meanwhile, 63 and 42 percent interact at farmers markets, respectively.

The trust, bonds, and community vitality that producer-consumer interactions support are difficult to measure. Yet, they are clearly beneficial as identified by most participants in local food-related research. One study interviewed 19 participants that volunteered for a local food challenge to ask them what they did or did not like about eating an exclusively local food diet.²⁰ One of the most often-cited benefits was that they learned more about the food they were consuming and gained trust for the food producers and the food system.

The health benefits of local food are another commonly cited advantage. Although scientists admit that more research needs to be completed in this topic area, the current conventional food system is clearly not the healthiest. Local food is generally considered fresher and less processed. In addition, local food is perceived as healthier by the public. In a survey done by the Leopold Center, 69 percent of respondents “somewhat” or “strongly” agreed that local food is healthier

¹⁹ *Ibid.*, 26.

²⁰ Carmen Byker et al, “The Benefits, Challenges, and Strategies of Adults following a Local Food Diet,” *Journal of Agriculture, Food Systems, and Community Development* 1(August 2010), 1.

than food that has traveled a long distance.²¹ Yet, that does not prove that local food actually is healthier.

A report by the United States Department of Agriculture (USDA) suggests two ways that local food could be healthier.²² First, local food tends to be fresher and less processed. As a result, there are more nutrients and fewer harmful additives, which may lead to better health for those that consume local food. The Harvard Medical School’s Center for Health and Global Environment agrees, arguing that local food that is sold within 24 hours of harvest and travels less distance than conventional produce better retains nutrients.²³ They also argue that since local food tends to be less processed it decreases the potential for damage and nutritional loss.

Second, local food systems may actually encourage consumers to eat healthier because of more fresh food options in many communities. This can also be explained in part because increased biodiversity of local food means greater nutritional diversity for the consumer. In addition, taste is often

²¹ Rich Pirog and Andy Larson, “Consumer Perceptions of the Safety, Health, and Environmental Impact of Various Scales and Geographic Origin of Food Supply Chains,” (Ames, IA: Leopold Center for Sustainable Agriculture, 2007), 3.

²² Martinez, 37.

²³ Center for Health and Global Environment, “Local and Urban Agriculture”, Harvard Medical School, 2011, <http://chge.med.harvard.edu/topic/local-and-urban-agriculture> (Accessed 3/28/2012).

mentioned as a reason many people choose to eat local food.²⁴ If better tasting fresh food can encourage consumers to eat more fresh food, then diets will be improved. More research is needed to support some of these claims; however it is very likely that local food systems do have health benefits.

Lastly, food safety may be improved with a local food system. In a 2008 survey administered by the Leopold Center, only 15 percent of respondents viewed the global food system as safe, while 74 percent viewed the local food system as safe.²⁵ It is true that food borne illnesses can be spread to consumers from any type of farm, but this depends primarily on the management practices of the producer. Most often, though, food contamination occurs during the processing stage. Since locally-produced food often skips the processing stage, contamination is less of a concern.

Additionally, any outbreak from a locally-produced food item would be contained to the local area, which makes it more traceable. Also, the long-term negative health impacts are likely to be much less in an area with a strong local food system since pesticides and other chemicals are often used less.



²⁴ Byker, 1.

²⁵ Pirog, Rich and Rebecca Rasmussen, "Food, Fuel and the Future: Consumer Perceptions of Local Food, Food Safety and Climate Change in the Context of Rising Prices," (Ames, IA: Leopold Center for Sustainable Agriculture, 2008), 4.

5 Institutional Local Food Program Best Practices

Research Methods

For this project to be successful, the Local Food Team (LFT) needed to understand how to successfully implement a local food program at a collegiate institution. Secondary research on the subject, however, was not available in a comprehensive form. The LFT conducted research in order to compile the best practices from colleges and universities with well-established local food programs. A large part of the recommendations in the action plan are based on the best practices findings.

The institutions selected for research were Augustana College, University of California-Berkeley, University of California-Davis, Iowa State University, Luther College, University of Northern Iowa, and University of Wisconsin-Madison. Several considerations helped decide which institutions to interview, and are shown in Table 1.



Table 1: Criteria and Justification

<i>Considerations</i>	<i>Justification</i>
Size	It is important to understand how scale may impact local food programs. Large and small institutions will provide perspective. Relatively smaller institutions are especially important since the Dubuque colleges and universities involved in this project are fairly small.
Location	Mainly institutions in the same state/region as Dubuque are preferable because of similar resources and seasons. However, institutions outside the region are acceptable if they have a well-established local food program relative to others.
Program Length	Institutions differ in how long they have had a local food program. Differing program lengths provide a unique perspective since practices and challenges may evolve over time.

Each institution’s dining service coordinator or local food program staff member was interviewed in person or over the phone and asked a predetermined set of questions about their local food program. The full set of interview questions can be found in Appendix A.

After all interviews were conducted, responses were analyzed to identify common practices, challenges, and solutions. The result is a summary of solutions to common obstacles and overall best practices that were used to guide this project, specifically interactions with Dubuque colleges and universities.

The LFT's analysis of interviews led to several interesting findings that are relevant for the institutions in Dubuque. First, when developing a local food program, all collegiate institutions had initial program objectives and concerns. Areas of concern ranged from risk management issues involving such issues as rotten produce and insufficient meat temperatures to issues of scale and reliability of farmers to produce the quantities needed. To eliminate these concerns, institutions implemented at least one of the following solutions:

1. Began with small goals and used one producer for a specific product, which led to easy oversight of the producer's operations and fostered a strong relationship between the institution and the producer
2. Acquired funding to hire a local food program coordinator
3. Special guidelines were created, which required producers to carry insurance or be Good Agricultural Practices (GAP) certified

4. Required producers to provide samples so institutions could judge the integrity and quality of the producer's product
5. Educated farmers about their standards for delivery and packaging requirements before delivery of the product
6. Re-trained their dining services staff to prepare fresh, non-standard food products
7. Created a team of students, faculty, and staff to discuss local food program development and implementation
8. Worked with their food distributor to track local food purchases in their current orders i.e. determine what food products are already local products

It should be noted that institutions cited quantity of product as an ongoing issue. One producer of a particular product often cannot provide the entire amount of product needed by the institution, especially if the institution serves several thousand meals each day. Generally, it is unreasonable for an institution to expect large quantities of a product from just one producer. A few institutions dealt with this issue by only serving a particular product through their catering services or making it available in one dining facility each day. A few institutions work with a producer cooperative that aggregates products from multiple producers to provide the large amount needed by the institution.

Interviews provided several other pieces of insight. The following items were mentioned by one or more schools during the research process. Upon review, these findings have direct implications to the success of a local foods program. The key findings are:

1. *No contracts* – Most institutions do not have contracts with local producers. Close, personal relationships were developed, eliminating the need for contracts. Two of the larger institutions interviewed have contracts with local food producers that provide large amounts of certain products to minimize the risk associated with failure to deliver the agreed upon quantity.
2. *Value student support* – In several instances student support played an important role in developing a local food program. Identifying student demand for local products, acceptance of a price differential, and desired products contributed to overall success. One institution, however, believed that most students did not know or care if local food is being purchased.
3. *A la carte local food options provide choice* – Providing both conventional and local food items a la carte helped one institution structure their prices to account for potential increases or decreases in product price and allow students, faculty, and staff the choice to consume either conventional or local products.
4. *No common definition of “local food”* – Institutions had varied definitions of what they considered a local product. Each institution defined local and/or regional in a manner that was acceptable to the students, faculty, and staff. Much of the definition had to do with the quantity of food that was actually available within a certain distance.
5. *Cooperatives eliminate common concerns* – Common concerns regarding scale and risk management are mitigated by the use of cooperatives, which aggregate products from multiple producers and lower food safety risks.
6. *Strong institution-producer relationship* – A strong relationship between institutions and producers is extremely important for a local food program to be successful.
7. *Set goals* – All institutions indicated the desire to increase the amount of local food purchased. Some institutions have set goals for how much local product they want to purchase each year.
8. *All institutions started small* – All of the institutions started with small goals to initially minimize risks and expanded as demand, capabilities, and relationships with producers became stronger.

9. *Understand what is already local* – In some cases, institutions were already purchasing local products through their food distributor but were unaware. Institutions should initially identify which products from their food distributor are local products.
10. *Understand conversions from farm to kitchen* – Simply, producers often base amount of product on yield per acre, mound, bed, etc. Dining services order food based on the number of meals that need to be prepared usually in pounds, boxes, etc. Prior to ordering products from local food producers, institutions should discuss the proper conversion.



Overall, the findings from the LFT's best practices research were extremely important to the success of this project. Much of the project's activities and content were based primarily on best practices findings. This strong connection will become much more evident throughout the remainder of this final report.

6 Driftless Area Local Food Producer Survey

Survey Methods

The goal of the Driftless Area Local Food Producer Survey is to understand the needs, concerns, and challenges of being a local food producer and whether partnerships with institutions are perceived as potentially beneficial to them. Uncovering this information can provide valuable insight that might help local food planners and advocates create a stronger local food system.

In February 2012, the surveys were mailed to 242 producers throughout the Driftless Area from a list compiled early in the project. This producer list was compiled through a variety of internet searches, farmers' market visits, newspaper advertising, and email list-serves. In addition to the paper survey, an online survey was created with Survey Monkey to provide producers an alternative, possibly more convenient method to complete the survey. For a breakdown of producers received the mailed survey, see Tables 2 and 3.

Table 2: Producers in Compiled List

State	Number of Producers
Illinois	44
Iowa	51
Minnesota	62
Wisconsin	83

Source: Author, 2012

Table 3: Producers by Type of Product

Food Product	Number of Producers
Fruit	61
Vegetable	86
Meat	73
Poultry	30
Eggs	28
Dairy	11
Honey	22
Melons	3
Gourds	14
Nuts	2
Popcorn	4
Cheese	31
Beer	5
Wine	16
Jam, Jelly, Syrup	17
Mushrooms	2

Source: Author, 2012

Note: Number of producers by product exceeds the total number of producers, 242, due to the majority of producers having more than one food product.

Having an online option allowed producers to be contacted through direct email and three email list-serves (Dubuque County Extension, Buy Fresh Buy Local Riverbend Chapter, and Four Mounds). Reminders were sent to producers that had email addresses in the producer list. In total, 67 surveys were returned, with 30 being completed online, and 37 completed on paper. The paper copies were then entered into Survey Monkey.

It is difficult to estimate an exact percent response rate for two reasons: outdated information and unknown overlap of farmers on email list-serves. First, not all of the 242 producers in the initial list were actually local food producers, due to outdated information found online or gathered from producer lists that had been obtained from other organizations. Two uncompleted surveys were returned that explained that those farms were no longer producing local food. Although only two local food producers can officially be removed from the list, it is likely that several more farms have experienced changes as well and may no longer be producing local food. Another possibility could be credited to inaccurate addresses.

Second, The LFT was unable to determine the total number of local food producers on each of the list-serves. In addition, many of the producers on the list-serves likely overlap with producers on the producer list. As a result, some producers probably received the survey multiple times. Therefore, without having access to the list-serves and being able to cross check names on each list, it is difficult to determine the exact percent response rate.

Overview of Survey Questions

As mentioned earlier, the main goals of the Driftless Area Local Food Producer Surveys were to understand the needs, concerns, and challenges of being a local food producer as well as to gauge interest in selling to institutions. In addition, the surveys helped The LFT get an overview of local food production in the Driftless Area, including information on what is produced, which production methods are used, and where the food is typically sold.

The surveys have undergone a number of revisions since they were initially written during the first phase of the project. Initially, many more questions were going to be asked and it was intended to be a survey by phone with each survey taking approximately 20 minutes. These phone surveys were practiced with four producers to help to narrow down the questions. Although those producers generally seemed interested in the project, The LFT did feel that the surveys needed to be simpler and more focused.

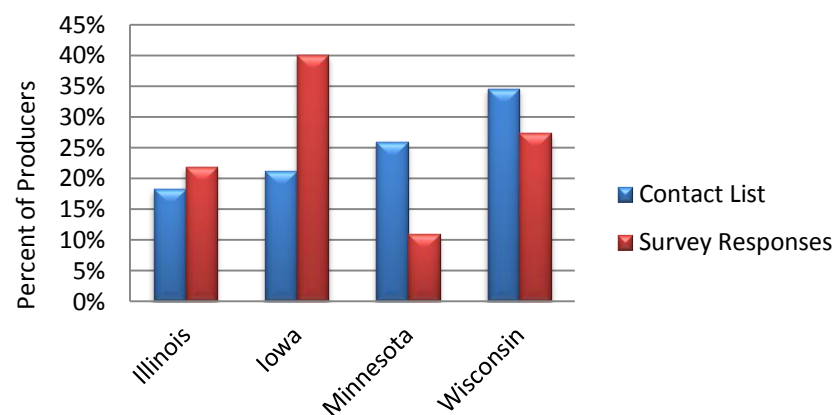
Early in the second phase of the project, the surveys were simplified to focus on simple questions (e.g. what is produced, which production methods are used, where food is typically sold, to whom the products are typically sold to), as well as more complex open-ended questions about their major challenges of being a local food producer (e.g. current challenges in selling local food, food safety challenges, perceived challenges of selling products to large institutions, educational challenges). A question about whether the producer is interested in selling to colleges and universities

was also included. Lastly, respondents were asked to provide their contact information if they were interested in attending a networking event in March. A copy of the survey can be found in Appendix B.

Overview of the Respondents

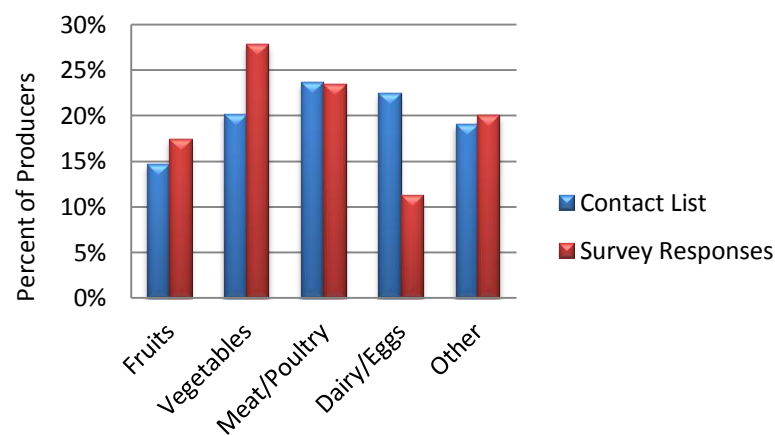
Sixty-seven producers completed the survey. The respondents differed from the initial contact list in only a couple of ways. First, more responses were received from Iowa and fewer responses were received from Minnesota than expected (Figure 3). This is likely because the surveys were sent out by the University of Iowa and Iowa State Extension, and because of the distance from Minnesota to Dubuque. Second, proportionally more vegetable and meat producers responded to the surveys. As mentioned later, vegetable producers were among the types of producers most interested in selling to colleges and universities, which would account for the difference. Dairy producers tended to be most common outside of Iowa, which is why fewer dairy producers responded. Figure 4 shows a comparison of the contact list and the survey respondents broken down by types of producers. Products were grouped into more general categories to make this comparison.

Figure 3: List Producers and Survey Responses by State



Source: Author, 2012

Figure 4: List Producers and Survey Responses by Type

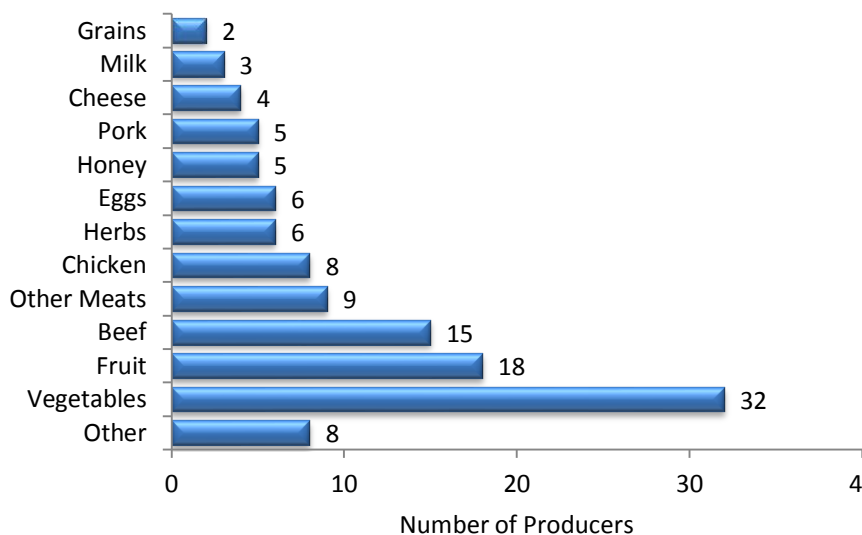


Source: Author, 2012.

Note: herb producers were placed in the "Other" category.

A simple overview of the producers provides new information that will be useful for institutions to know. Many of the questions resulted in multiple answers from the producers. For example, when asking which products they grow or raise, many responded with multiple products. Figure 5 summarizes the variety of products grown or raised by the producers that completed the survey in absolute numbers and not grouped into more general categories. Vegetables and fruit were the most commonly produced items, with a variety of meats well-represented as well. Specialty meats, such as emu or lamb, were grouped into the “Other Meats” category. Specialty products, such as wine or soup mixes, were grouped into the “Other” category.

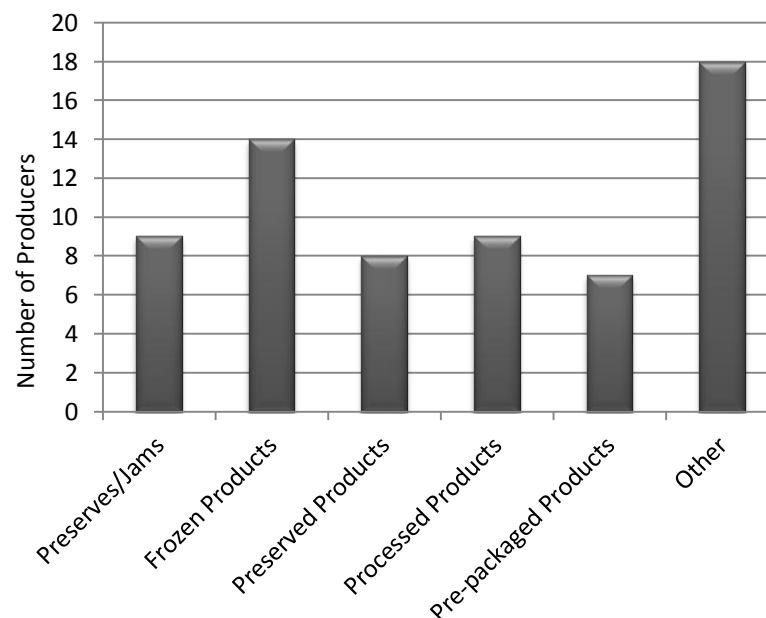
Figure 5: Types of Products



Source: Author, 2012

A number of value-added products are produced as well by producers in the Driftless Area. Figure 6 shows the types of each value-added product that is produced. “Other” was the category most commonly selected in this question. Some of the products listed as “Other” were wine, maple syrup, cheese, honey, and apple cider.

Figure 6: Types of Value-Added Products

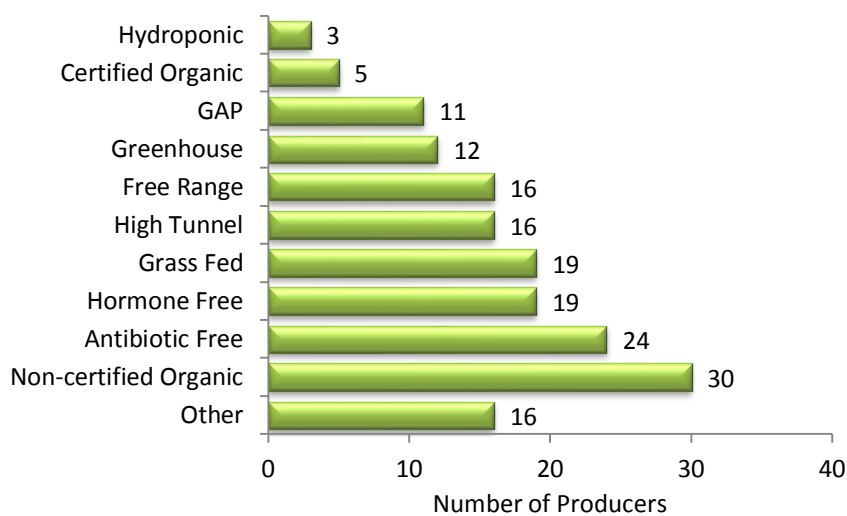


Source: Author, 2012

One of the major advantages of locally- produced food is that many of the farms are small, which makes it possible to have more sustainable production methods. Although certifications (e.g. Certified Organic and GAP) are costly and, therefore, less common among these local food producers than one might

assume, a number of more sustainable production methods are still used (Figure 7). For example, 30 of the 67 producers said that they use non-certified organic production methods. Similarly, many producers use antibiotic free, hormone free, free range, grass fed, and other specialized production methods.

Figure 7: Types of Production Methods

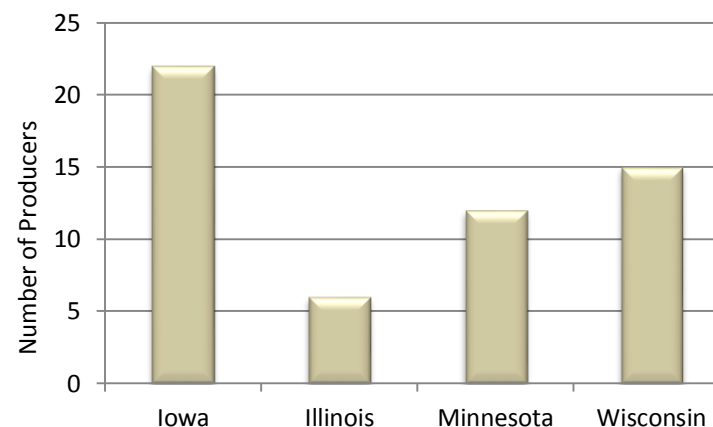


Source: Author, 2012

The LFT was unable to determine the location of every producer that responded to the survey because only about half gave their contact information. However, with internet searches on the name of the farm, 55 of the 67 respondents' farms were found (Figure 8). Iowa was the best represented state, probably since the surveys were administered by the University of Iowa and Iowa State University Extension.

Wisconsin and Minnesota were next followed by Illinois. This distribution makes sense given the land area of Driftless Area in each of these states.

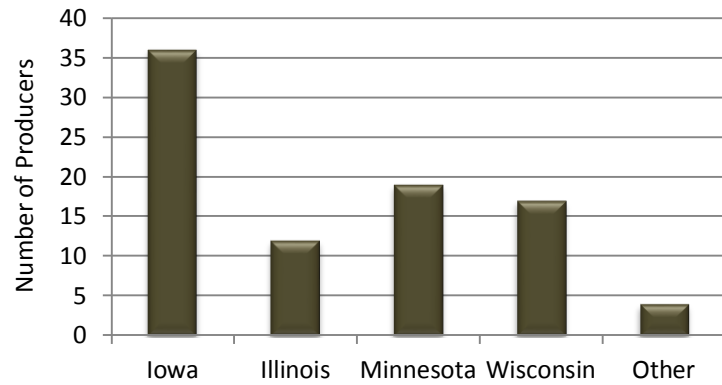
Figure 8: Location of Farm



Source: Author, 2012

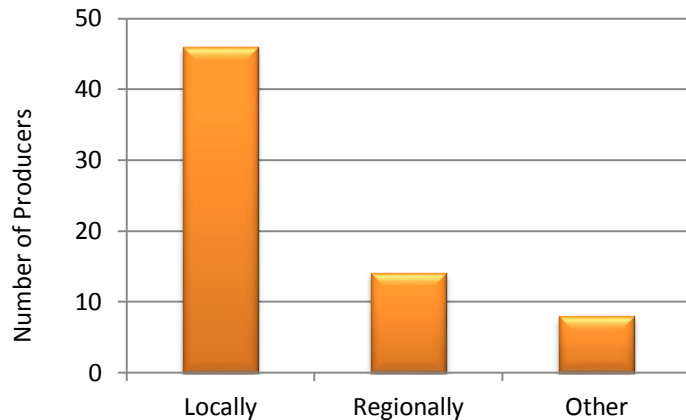
Figures 9 and 10 summarize where their products are sold. For the purposes of the survey, selling "Locally" was defined as within 50 miles and "Regionally" as within the Driftless Area. Over 2/3rds of the respondents sell their products within 50 miles of their home. Therefore, these producers are truly *local* food producers. "Other" refers to sales that are beyond the Driftless Area boundaries (e.g. nationally or in a different region). Again, Iowa was the most commonly listed state where products are sold. This makes sense since more producers were located in Iowa than the other states.

Figure 9: States where Products are Sold



Source: Author, 2012

Figure 10: Distance Products are Sold

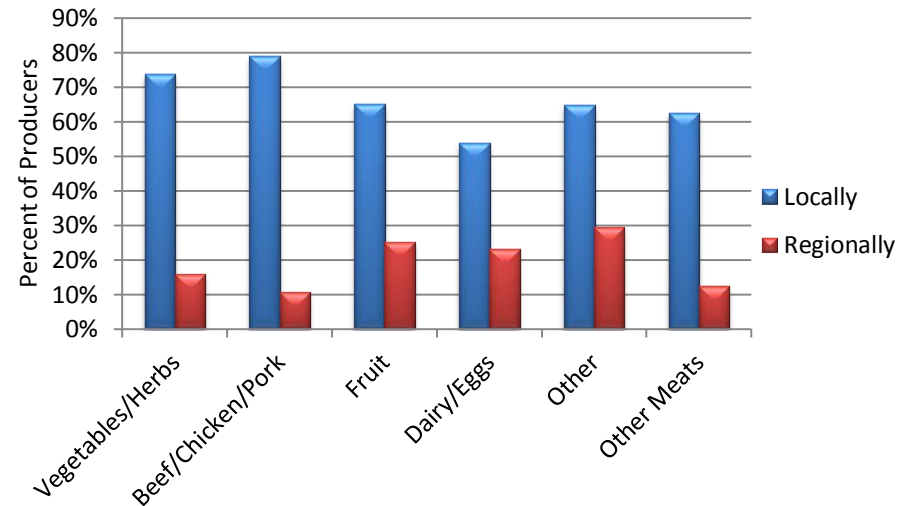


Source: Author, 2012

When cross-evaluating the type of product sold and the distance traveled, the majority sold their products locally. Figure 11 shows distance that products are sold. At least 50%

of all types of producers sell their products within 50 miles. Yet, producers of certain types of products are more likely to sell their products beyond 50 miles. For example, producers of specialty items that are in an “Other” or “Other Meats” categories are more likely to sell their products a farther distance, perhaps to find a large enough market. Fruit and dairy products are also more likely to be sold regionally rather than locally. Meanwhile, vegetable/herb and beef/chicken/pork producers are more likely to sell their products locally. Keep in mind that many producers raise or grow multiple types of products so a producer may sell one item locally and another item regionally, for example. The producers were not asked to distinguish the distance that each product is sold on the surveys. Regardless, a majority of producers sell close to home.

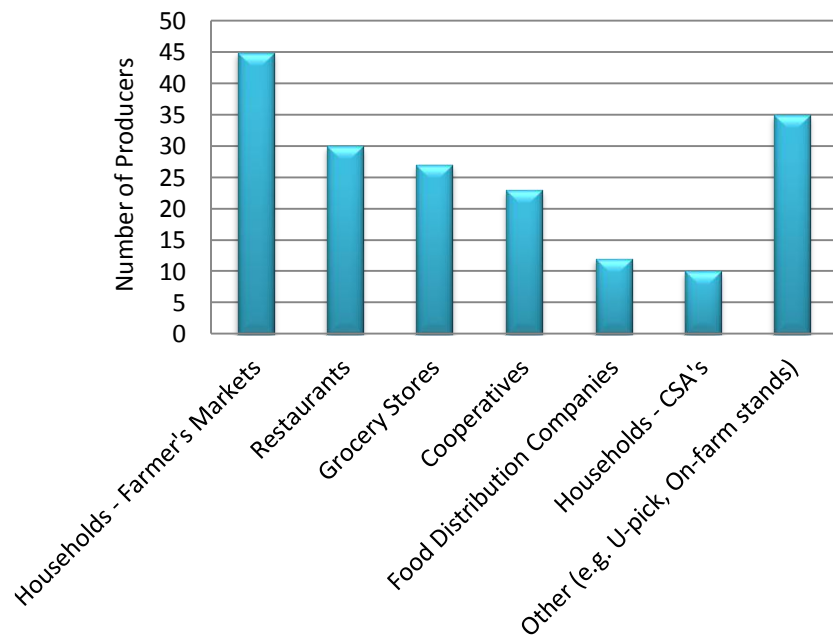
Figure 11: Types of Products and Distance Products are Sold



Source: Author, 2012

A question was asked about the typical buyers of the local food producers' products (Figure 12). The most common methods of selling their products are at farmers' markets and on-farm stands or u-pick operations (i.e. "Other"). Yet, restaurants, grocery stores, producer cooperatives, and distribution companies are very common purchasers of local food. Surprisingly, CSAs are not as common among the producers, so perhaps there is room for improvement.

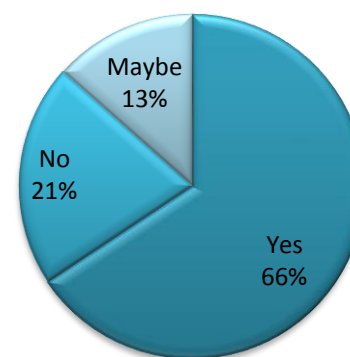
Figure 12: Current Clients of Local Food Products



Source: Author, 2012

One other important piece of basic information that was important to uncover is the interest in selling to colleges and universities. The LFT was unsure whether producers would find it very advantageous to sell to this type of institution because they demand food on a much larger scale than many local producers can provide and because school is mostly in session during the non-growing season. Yet, the majority of producers were, indeed, interested in this type of customer (Figure 13). More will be discussed about this in a later section.

Figure 13: Interest in Selling to Colleges and Universities



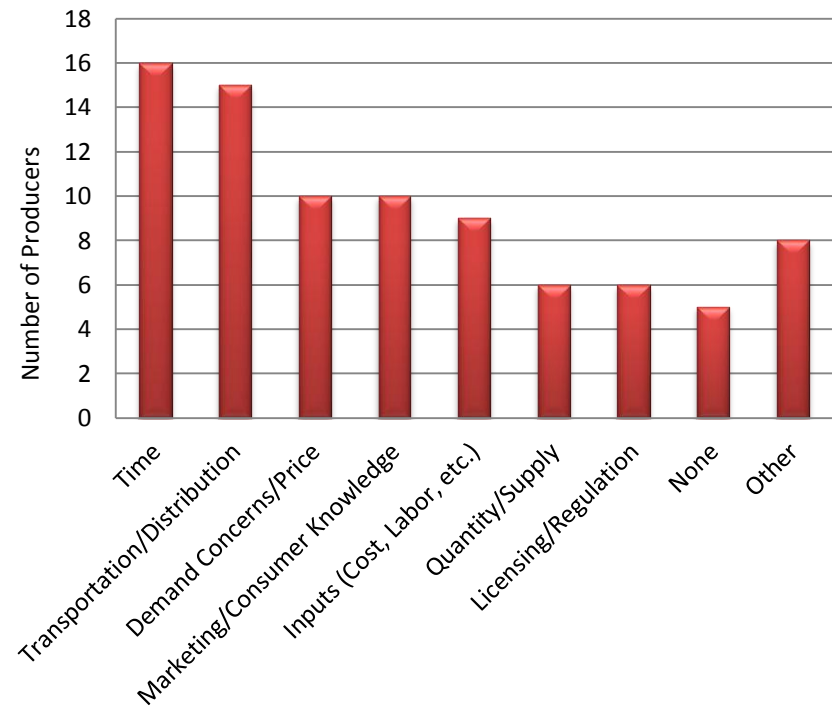
Source: Author, 2012

Challenges of Being a Local Food Producer

A variety of responses, shown in Figure 14, were received when asking about the main challenges for producers. Each of the main challenges listed are described briefly below:

- *Time* – not enough time to produce, sell, and market products.
- *Transportation* – driving to several farmers’ markets or distributing their products was a challenge.
- *Demand Concerns/Price* – getting a fair price and enough buyers was a concern.
- *Marketing/Consumer Knowledge* – educating consumers about why their locally produced item was of a higher quality than what consumers can buy in the store was difficult. In addition, knowing how and having time to market products was a concern.
- *Inputs (Cost, Labor, etc.)* – finding enough labor or being able to afford other input costs was listed as a challenge by several producers.
- *Quantity/Supply* – producers had difficulty producing enough to satisfy all of their customer’s concerns.
- *Licensing/Regulation* – regulations provided a barrier, often in terms of cost.
- *None* – no major challenges were listed.
- *Other* – a variety of less common responses were combined here. Such things as farmer education and competition were listed.

Figure 14: Producer Challenges of Selling Products



Source: Author, 2012

Many producers listed multiple responses for this open-ended question and it was often difficult to discern the challenges. For example, concerns about marketing may have more to do with a lack of time than specifically about how to market their products. Yet, if it was clear that both time and marketing were concerns, both concerns were coded as challenges. Regardless, time and transportation/distribution concerns seemed to be the most common concerns of the local food producers.

Another finding is that producers with time or transportation/distribution as a main challenge were more likely to be interested in selling to colleges and universities (6% and 13% answered “No” to being interested in selling to colleges and universities, respectively) as shown in Table 4. These results are significant compared to the other producers at the $\alpha = 0.05$ level ($z = -2.49$). Having one major customer like an institution alleviates time and transportation-related challenges so producers who listed time and transportation as major concerns may recognize this advantage.

Table 4: Percent of Producers Interested in Selling to Colleges and Universities for each Challenge Listed

Challenge	Level of Interest			Number of Responses
	Yes	No	Maybe	
<i>Time</i>	88%	6%	6%	16
<i>Transportation/Distribution</i>	60%	13%	27%	15
<i>Demand/Price</i>	30%	60%	10%	10
<i>Marketing/Consumer Knowledge</i>	70%	30%	0%	10
<i>Inputs (i.e. cost, labor)</i>	67%	33%	0%	9
<i>Licensing/Regulations/Government</i>	67%	17%	17%	6
<i>Quantity/Supply</i>	67%	17%	17%	6
<i>None</i>	80%	20%	0%	5
<i>Other</i>	63%	38%	0%	8

Source: Author, 2012

Note: this table reads across because observations are divided by the total number producers that listed each challenge. For example, of the 16 producers listed time as a challenge, and 88% of those said they were interested in selling to colleges and universities.

Breakdown of Types of Producers Most Interested in Selling to Colleges and Universities

It is difficult to distinguish many patterns when trying to evaluate which types of producers are more likely to be interested in selling to institutions rather than others. Yet, uncovering which types of producers are most and least interested in selling to institutions could help focus resources when trying to connect institutions with local food producers.

Table 5 is summarized by interest in selling to colleges and universities. Therefore, it shows the percent of each challenge listed for producers that are interested in selling to colleges and universities, producers that are not interested in selling to colleges and universities, and the producers that may be interested in selling to colleges and universities. The main challenge for producers that are interested in selling to colleges and universities is time. As mentioned above, these producers were more likely to answer “yes” when asked about their interest in selling to colleges and universities because a single large producer would reduce the time needed to travel to a number of other consumers. Demand/price were seen as a challenge for 43% of producers that listed “no” for their interest in selling to colleges and universities. This is a bit of a surprising result, because a large institution can increase demand. Yet, perhaps these producers are skeptical of institutions being able to give them a fair price for their products. Without further investigation, it is difficult to know.

Table 5: The Current Challenges in Selling Products for Producers and Interest in Selling to Colleges and Universities

Interest	Challenge								Number of Responses
	Time	Transportation	Demand/ Price	Marketing	Inputs (i.e. cost, labor)	Licensing	Quantity/Supply	None	
Yes	32%	20%	7%	16%	14%	9%	9%	9%	44
No	7%	14%	43%	21%	21%	7%	7%	7%	14
Maybe	11%	44%	11%	0%	0%	11%	11%	11%	9

Source: Author, 2012

Note: This table reads across. For example, of the 44 producers that said they were interested in selling to institutions, 32% listed time as one of their challenges. Numbers do not add up to 100% because many of the producers listed multiple challenges in their responses.

Table 6 shows the current clients of producers that are or are not interested in selling to colleges and universities. Of the producers that answered “yes” about their interest in selling to these institutions, a much higher percentage of them currently sell to grocery stores or are part of a cooperative. The producers that sell to grocery stores may have a slightly larger-scale operation to meet the needs of larger institutions. Or, these producers may have had positive experiences selling to large institutions, making them more likely to be interested in another large institution. Producers that are part of a cooperative may also be able to meet the needs of larger institutions better. Being able to consolidate products reduces risk and helps small producers scale up to meet the needs of larger consumers. Cooperatives also appeal to the large-scale consumer, because less time is needed to find a large amount of local food.

Table 6: The Current Clients for Local Food Producers and Interest in Selling to Colleges and Universities

Interest	Client							Number of Responses
	Farmers Markets	Restaurants	Cooperatives	CSAs	Grocery Stores	Food Distribution Companies	Other (e.g. U-pick, On-farm stands)	
Yes	73%	48%	43%	16%	48%	18%	57%	44
No	50%	21%	7%	14%	7%	14%	57%	14
Maybe	33%	22%	0%	11%	11%	0%	33%	9

Source: Author, 2012

Note: similar to Table 4, the percentages will not add up to 100% because many producers sell to multiple clients.

Table 7 shows which products or items are produced by producers that are and are not interested in selling to colleges and universities. Vegetable/herb producers were the most common type of producer that said “yes” to the question about interest in selling to colleges and universities. The products that are most highly represented in the survey (i.e. vegetables/herbs, fruit, beef/chicken/pork) are the most common products grown or raised by producers that are interested in selling to colleges and universities.

Table 7: The Products Grown or Raised by Local Food Producers and Interest in Selling to Colleges and Universities

	Products						
Interest	Fruit	Vegetables/Herbs	Beef/Chicken/Pork	Other	Other Meats	Dairy/Eggs	Number of Responses
Yes	30%	57%	30%	16%	7%	16%	44
No	21%	36%	14%	43%	29%	14%	14
Maybe	22%	56%	33%	33%	11%	11%	9

Source: Author, 2012

Note: similar to the previous tables, the percentages will not add up to 100%.

Table 8 on the following page is similar to Table 7, but it summarizes the numbers by each type of producer so that it is possible to evaluate how likely each type of producer is to want to sell to institutions. Producers that sell specialty products that fit in the “Other” and “Other Meats” categories are less likely to be interested in selling to institutions. This is supported by statistical significance as well ($z = -2.45$). Wine is a common specialty product, which may partly explain why these numbers are lower. Another explanation may be that producers of specialty products do not believe that colleges and universities would be interested in serving those items. For example, producers of specialty meats may sell directly to restaurants that feature a more exotic menu. Therefore, more mainstream consumers, such as university students, may not be interested in those products.

Table 8: Interest in Selling to Colleges and Universities Summarized by each Product

Products	Interest			
	Yes	No	Maybe	Number of Responses
Fruit	72%	17%	11%	18
Vegetables/Herbs	71%	14%	14%	35
Beef/Chicken/Pork	72%	11%	17%	18
Other	44%	38%	19%	16
Other Meats	38%	50%	13%	8
Dairy/Eggs	70%	20%	10%	10

Source: Author, 2012

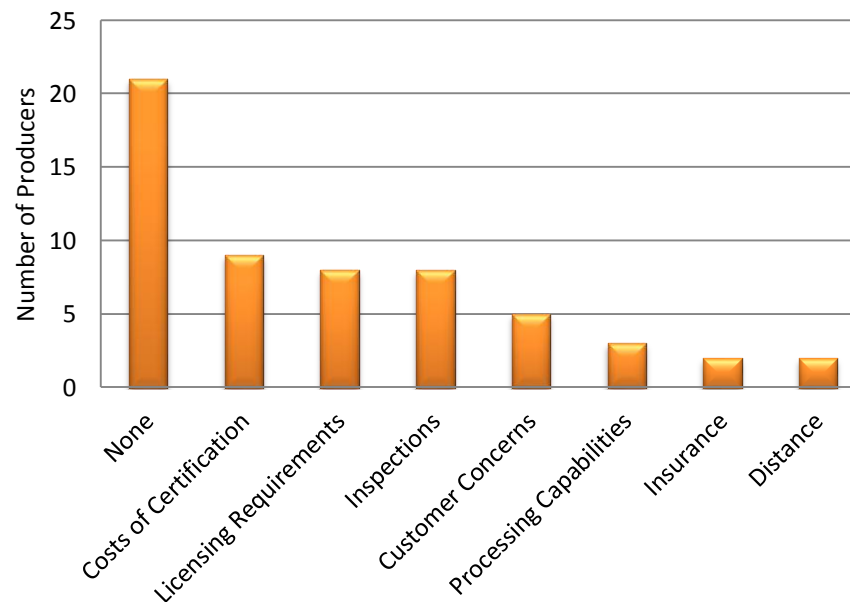
In general, most types of producers are much more likely to want to partner with a large institution like a college or university than to not. Such a partnership can help to minimize the challenges that producers encounter.

Food Safety and Licensing Concerns

Although licensing and regulations were only listed as a challenge to selling their products six times, an additional question was asked to get more detail about the licensing and food safety concerns. Figure 15 shows the concerns about licensing that were listed by the producers. By far, most producers had no concerns at all. This result is somewhat surprising, since the cost of certifications (e.g. GAP certification, organic certification, etc.) had often been noted as a challenge to small, local farmers in the existing research and literature pertaining to local farmers. One explanation is that these producers may have taken the question to mean,

“What food safety concerns do you have?” rather than “What licensing for food safety concerns do you have?” As a result, many producers may have expressed that they did not have any food safety concerns, even if they did have regulation of licensing concerns. Rephrasing the question may have produced different results. Regardless, of the barriers listed, costs, licensing requirements (e.g. inconsistent, varies by state), and inspections (e.g. state vs. federal, dissatisfaction with inspectors) were the most common. This supports the argument that current food safety regulations and costs of licensing can be a challenge for local food producers.

Figure 15: Producer Barriers to Food Safety Regulations



Source: Author, 2012

Educational Opportunity Awareness

Figure 14 on the previous page shows the major challenges for local food producers to sell their products. Education was mentioned only one time (e.g. “Other” category). Relatively, educational support for local food producers does not appear to be a major challenge.

One multi-part question was asked about awareness of educational opportunities for local food producers. 43 of the 61 producers that responded to this question said that they were aware of educational opportunities for local food producers. Additionally, nearly $2/3^{\text{rds}}$ (65%) of the producers that were aware of educational opportunities listed examples of one or more programs they have used. While some responses contained answers that were completely different from others, below are the educational programs that had been listed multiple times by different producers in the survey:

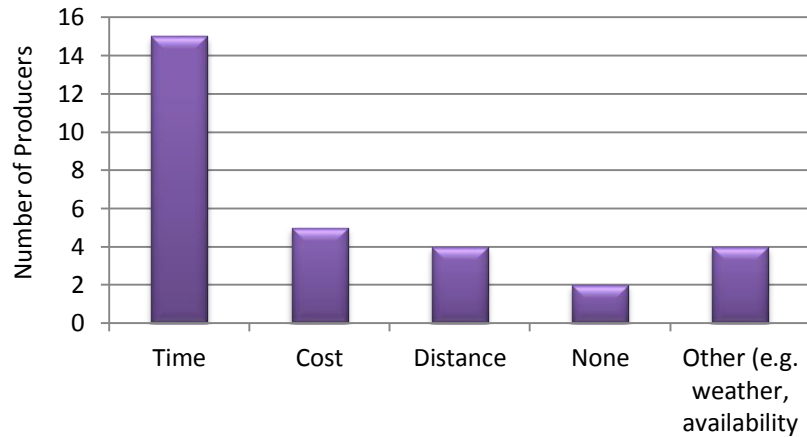
- *Midwest Organic and Sustainable Education Service (MOSES)* – offers educational events and resources for organic and sustainable farming techniques.
- *Extension Office* – provides agricultural education based on university research.
- *Good Agricultural Practices (GAP)* – meetings and training to become GAP certified are available.
- *Northeast Iowa Food and Fitness (NIFF)* – provides educational opportunities that promotes local food in Northeast Iowa.

- *Buy Fresh Buy Local* – is related to NIFF. Buy Fresh Buy Local promotes connections between local food farmers and consumers. Educational opportunities are provided.
- *Fruit and berry growers training* – are available through various state fruit and berry growers associations.

In addition, only two producers that attended these events or trainings suggested that they were not helpful, while 16 of the producers mentioned that they did find these educational opportunities useful. A complete list of all of the educational opportunities that were listed on the surveys can be seen in Appendix B.

Lastly, thirty producers responded to a follow-up question about their barriers to participating in these educational opportunities. Figure 16 on the following page summarizes the barriers listed. Similar to the responses for the general challenges of being a local food producer, time was the most commonly listed challenge of participating in educational opportunities. Yet, cost and distance were also listed as barriers.

Figure 16: Barriers to Participation in Educational Opportunities



Source: Author, 2012

Driftless Area Local Food Producer Survey Conclusion

These surveys have been helpful to reach out to local food producers in the Driftless Area and learn more about what and how local food is produced, where it is sold, and who purchases it. The results also provide insight that can help address the needs of local food producers. Educational support for the producers did not appear to be a challenge. Yet, a wide variety of other challenges were listed, with time and transportation being the two primary concerns.

In general, most local food producers in the Driftless Area are interested in selling their products to colleges and universities. Yet, narrowing down which types of producers are the most interested in selling to institutions can also be helpful. For example, producers that are most concerned about time and transportation are more likely to be interested in selling to colleges and universities. Meanwhile, producers of specialty products are less likely to want to sell to colleges and universities. These results can be helpful in connecting local food producers with institutions in Dubuque in the future.



7 Food Safety and Policy Research

Research Method

A two-pronged approach was used to research food policy. The first part was to speak with individuals involved in the implementation of food policy at the state level and those who actively research food policy. The second part involved researching the policies which have been implemented at the state and federal level. Steven Mandernach and Scott Platt with the Iowa Department of Inspections and Appeals and Dr. Gary Johnson with the Iowa Department of Agriculture and Land Stewardship helped inform this section of key regulatory requirements for food and food product inspection. Dr. Angela Laury with Iowa State University's Department of Food Science and Human Nutrition informed the LFT of resources for farmers to easily take into account food and food product safety. Matt Russell with Drake University's Agricultural Law Center helped inform the research of aspects of policy likely to be controversial with farmers. The policy section is intended to give a concise overview of the key factors of current food and food product policy that impacts the production and sale process for food and food products (e.g. licenses and inspection required).

Food Safety Overview and Implications

Food safety is a topic that needs to be considered by institutions and producers. When food safety is not considered in the production, processing, transport, or sales of

food products, both the producer and establishment are legally and financially at risk. Precautions and practices which insure safe food production, sale, and transportation means that the producer and institution are at a much lower risk should an issue come up, and consumers can be confident in the food they eat. The food safety regulations that relate to local food, as well as recommendations to improve the system will be reviewed here.

Some form of the Food and Drug Administration's (FDA) *Food Code* is the basis for state regulations affecting the food industry in the majority of all U.S. states.²⁶ The *Federal Meat Inspection Act* and *Poultry and Poultry Inspection Act* regulate meat and poultry inspection, which is handled by U.S. and State Departments of Agriculture. Eggs are similarly handled in state and federal legislation. This regulation stipulates how animals should be slaughtered and processed, and how food should be handled, processed, and cooked. Records must be kept by those who produce food, process food, or transport food and is a requirement of the *Federal Food, Drug, and Cosmetic Act (FD&C)* and the FDA has had authority to access

²⁶ U.S. Food and Drug Administration, "Real Progress in Food Code Adoptions"
<http://www.fda.gov/Food/FoodSafety/RetailFoodProtection/FederalStateCooperativePrograms/ucm108156.htm> (accessed 10/31 2011).

records since January 2011.²⁷ A summary of these regulations can be found in Appendix C.

A number of resources allow institutions to easily create food safety plans and logs. Records are an important part of food safety, but safe food product handling is more important. Processing, handling, and manufacturing requirements give the producer, processor, and institution all required steps for food safety. With proper record keeping, safe manufacturing practice, and safe handling processes, there should be no concern over food safety coming from local food producers.

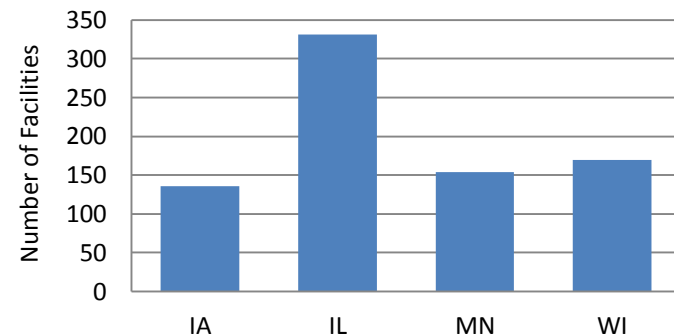
Existing policy creates a number of issues for producers and even those who have regulatory authority. Not only are aspects of food policy handled by different agencies federally, but that same split-up approach is used at the state level with state regulations. There are good reasons for much of the food safety requirements for farmers and institutions. Having licensing and inspection handled within one agency would reduce the amount of contacts to be made and rules to be followed by farmers and institutions.

One barrier comes from requiring federal inspection for interstate commerce of meat, poultry and egg products creates barriers for producers and institutions in multi-state regions such as Dubuque, Iowa. For example, if meat is processed in a state inspected facility in Wisconsin, it cannot

be sold across the border no matter how short the distance is. Since state inspection programs are required to be implemented at least as strict as federal regulations, it would make sense to allow interstate-commerce exceptions for state-inspected meat and poultry products.

After locating all state and federally inspected meat and poultry facilities, it is clear that the regulation has not prevented processing facilities from existing. Figures 17 and 18 show the number of state and federally inspected facilities in Iowa, Illinois, Wisconsin, and Minnesota. Not all areas have easy access to federally inspected facilities, a key factor in being able to sell across state borders and for export markets. This is something that is important to know for a multistate area like the Driftless Area.

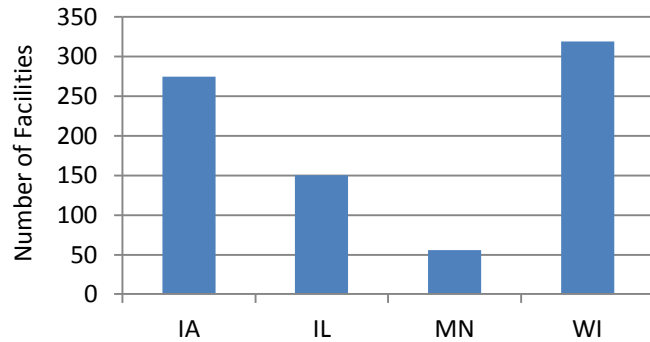
Figure 17: Number of Federally Inspected Meat and Poultry Facilities by State



Source: Author, 2012

²⁷ U.S. Department of Health and Human Services and Food and Drug Administration, *Guidance for Industry Questions and Answers Regarding of Records by Persons Who Manufacture, Process, Pack, Transport, Distribute, Receive, Hold, or Import Food* 2012. 2.

Figure 18: Number of State Inspected Meat and Poultry Facilities



Source: Author, 2012

If municipalities are interested in encouraging local food use, they could ensure that meat and poultry facilities and other food processing facilities are easy to access for farmers and institutions. Getting to know the food industry in an area can speak to what sorts of concerns there are. Helping market safely operating facilities not only increases the likelihood of a farmer's food being bought, but of that facility continuing to operate. In addition, it is important for the zoning ordinance to allow construction of processing facilities.

Another issue that may arise due to state and federal regulation is the need for refrigerated vehicles. Food and food products at risk for spreading food borne illness (e.g. melons, meat, poultry, eggs, etc.) must be temperature controlled during shipment and holding. These vehicles are expensive but allow shipments during warmer months and for clients that require it. This requirement could be a burden on small, local producers. Yet, a refrigerated vehicle that can be shared in an

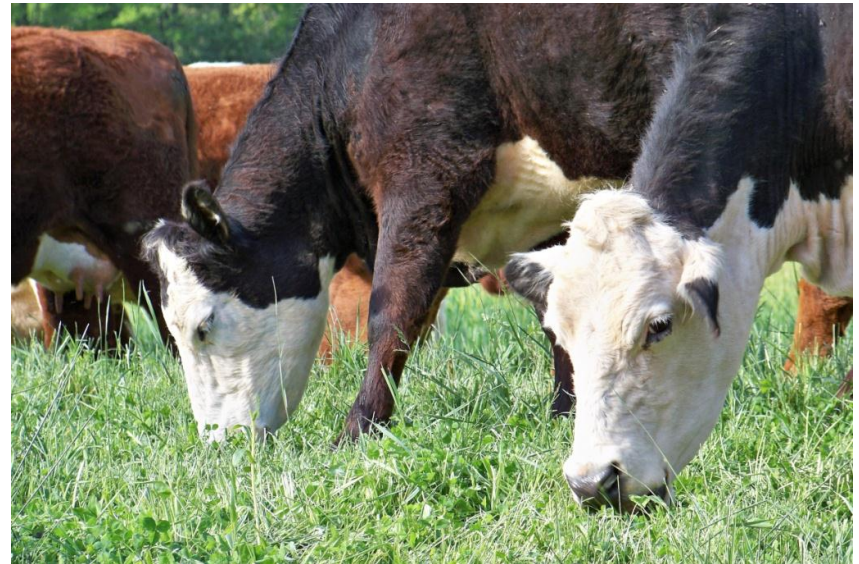
area could help lower the cost for farmers and increase the market possibilities for farmer and buyer.

Food safety regulations should be referenced when there are questions about it and nearly all departments of agriculture provide help when there are concerns and questions. Municipalities should get to know their food community to be able to evaluate strengths, weaknesses, opportunities and threats and act as a conduit to state and federal governments as well (e.g. SWOT analysis). As more planning and consideration for food safety is required over time, someone or some agency will need to guide the industry if more requirements are to be implemented.

The number of licenses, inspections, and agencies required for food production creates a cost and marketing barrier. For small producers, the amount of regulations creates cost and time barriers to larger commercial sales and do not create an environment likely to encourage local food utilization. Many small, local producers produce multiple items. For example, a food producer that also sells eggs is required to have a license to handle eggs as well as to transport eggs. As a result, a small producer that has multiple food items may have to obtain many licenses.

Whereas a food producer that specializes in one product has fewer regulations to worry about. The policy generally creates an atmosphere encouraging aversion from food safety requirements, even if those requirements are for the public's benefit. Although these regulations create challenges for producers, there are resources available to help.

Food safety regulations can create barriers to local food if not done correctly. Policy-makers must closely monitor the regulations so that local food programs can continue to grow and thrive. Minimizing the number of licenses and types of inspections could reduce barriers to adopting safe food handling practices. Municipalities should work to analyze their local needs, while states should ensure a well-functioning regional food system. A number of options exist to take into account food safety issues while also reducing costs for institution and producer.



8 Marketing Messages for Varied Audiences

To complete the marketing and public education goal of this project, the LFT compiled local food research and success stories into concise summaries or basic marketing messages that can be used as talking points in conversations with different audiences promoting local food. In addition, being concise, the summaries compiled can easily be used in social media efforts to promote local food. With different audiences in mind, research and success stories were tailored to provide information relevant to institutions, local food producers, local government, and the general public. Much of the research and many of the success stories are associated with the Driftless Region to provide a valuable local context.

Messages for Colleges and Universities

- In a survey administered by University of Iowa graduate students and Iowa State University Extension, 2/3 of local food producers in the Driftless Area were interested in selling their products to colleges and universities.
- Students at Dubuque colleges and universities are generally very supportive of local food. When the student groups took ownership in creating petitions at their school the response was overwhelming. Each student group obtained at least 100 signatures and managed to get over 600 total signatures from students in support of local food. These signatures

were then presented to the administration at each school in order to demonstrate student support for local food. It is hoped that this will lead to a significant increase in the amount of local food that is purchased at each institution.

- The most important part of creating a local food program for colleges and universities happens during the initial meeting between dining services staff and local producers. On March 22nd, representatives from Clarke University, Loras College and the University of Dubuque met with over a dozen local food producers to discuss the possibility of partnerships that would integrate more local food into each institution's dining options. The meeting was well received by both producers and the institutions. Each school now has a list of local producers interested in working with them and can now start the process of purchasing some of their items in the future.
- Loras College dining service is unique in that it already has an established vendor with whom they are contracted with. Yet, Loras discovered that some local producers are already certified to sell to their distributor. This allows the dining service coordinators to simply request food from those producers in order to start serving local food.

- The University of Northern Iowa has been providing local food in its dining services for over 15 years, now. By starting small and building strong relationships with regional food producers, local products now account for 25% of the overall food the University provides to students as well as through its catering services.
- Luther College in Decorah, Iowa started purchasing local apples and honey over 20 years ago. In 2004, Luther's dining services began incorporating more local food in their regular meal plans in response to student demand. In 2010, 21% of Luther's food was purchased from local producers. The beef and pork served in their cafeterias is from grass-fed animals and is 100% locally sourced. Luther College's food distributor, Sodexo, procures much of their local food from a nearby producer co-op, which has helped to streamline the process and keep costs lower.
- Augustana College recently started a local food program called Farm2Fork. Not only have they been able to serve higher quality and often cheaper food, but they have used their relationships with the producers to provide educational opportunities for their students. After all, there is a lot that can be learned on a farm!

Messages for Local Food Producers

- By selling local food products to institutions, producers may be able to devote less time to other distribution activities. In a survey administered by University of Iowa graduate students and Iowa State University Extension, 88% of producers that listed time as major challenge were interested in selling their products to colleges and universities.
- In 2011, the Fifth Season Cooperative opened its doors in Viroqua, Wisconsin. The objective of this multi-stakeholder cooperative is to operate as a food hub within the Driftless Area, with its members spanning the entire food supply chain. Its membership is comprised of producers, processors, distributors, buyers, and workers. With a market area of 150 miles surrounding Viroqua, this organization strives to develop relationships between producers and consumers within the region and to strengthen the local economy.

“This facility is a tremendous resource to the agricultural industry in our region. It provides the aggregation, processing and distribution infrastructure to help small producers increase their market opportunities and business capacity,” Susan Noble, executive director of the Vernon County Economic Development Association said. “We’re creating jobs,

increasing the tax base and engaging our own local entrepreneurs to grow the economy.”²⁸

- The Dubuque Food Coop is a consumer cooperative that is set to open in Fall 2012 in the City of Dubuque. After its first year of operation, the cooperative has a goal of obtaining 20% of its inventory from producers, farmers and growers located within a 90 mile radius of Dubuque.²⁹ Members of the cooperatives Board of Directors have also indicated that they may be open to supporting wholesaling and aggregation endeavors in the future. More information about the cooperative can be found on their website at <http://www.dubuquefoodcoop.com/>. Social media connections can also be made by directing users to their Facebook page, <https://www.facebook.com/dubuquefoodcoop>.

Messages for Local Government

- In a survey administered by University of Iowa graduate students and Iowa State University Extension, many local food producers in the Driftless Area were found to use more sustainable production practices, including non-certified organic (45% of all producers),

²⁸ Courtney Berner. *Fifth Season Cooperative*. Rural Cooperatives, November/December 2010, 29. <http://www.rurdev.usda.gov/rbs/pub/nov10/nov10.pdf>. Accessed April 10, 2012.

²⁹ Katie Giannakouros, *Personal interview with Stephanie Leintz*. March 22, 2012.

free range (58% of meat producers), antibiotic free (74% of meat and dairy producers), hormone free (58% of meat and dairy producers), and grass fed (61% of meat and dairy producers).

- Money that is spent on local food is more likely to circulate within a local economy. Economists have estimated that \$1 that is spent on local will return about \$0.95 back into the local economy.
- Local food travels much less than conventional food. A study done by the Leopold Center found that conventional food travels about 27 times as far as local food. This study did not include imported food in the calculation.
- Local food producers tend to grow a variety of crops, rather than just one or two. The variety increases the biodiversity in our ecosystem, which is good for the environment.
- Since local food travels fewer miles, it is often fresher and tastes better. Likewise, a local food system is generally considered to be healthier than the conventional food system which makes it better for people and better for society.

Messages for the General Public

- Food focused television shows have raised in popularity in the last decade. Following this trend is a rise in consumer's knowledge of food, which has led to a shift in diner's expectations. Chef Don Saunders, of the restaurant In Season (Minneapolis, MN) explains, "My guests know what the best is and they demand it. As a small business, it is critical to our survival that we faithfully service the needs of our clientele. In recent years, diners not only want to know how a menu item is prepared, but also where it came from. We've found that our diners are willing to pay a premium for foods that are seasonally appropriate and locally sourced."³⁰
- Each year, the National Restaurant Association (NRA) surveys its members on which foods, beverages, cuisines, and culinary themes will be hot trends. This year's addition of the What's Hot in 2012 chef survey had one central theme: locally sourced food.³¹ The list of the top trends in the restaurant world included the word "local" in four of the top twenty entries, with locally sourced meats and seafood and locally grown

³⁰ Don Saunders, Personal *interview with intern Jon Drury*. May 19, 2011.

³¹ *Chef Survey: What's Hot in 2012*. National Restaurant Association, 2012. http://www.restaurant.org/pressroom/social-media-releases/images/whatshot2012/What's_Hot_2012.pdf. Accessed April 20, 2012.

produce coming in first and second respectively.

- The trend of locally sourced foods is informed by patrons who understand the importance of the movement to the local economy. Executive Chef of Milwaukee's Hinterland, Dan Van Rite, shared his insights: "It used to be enough to put on a menu 'Colorado Lamb.' That satisfied whatever curiosity the diner had about the origin of their meal. That isn't the case anymore. Our guests want as much of the food on their plates to be locally sourced as possible. They vote with their wallets. It's as if we—when we can't find a local farm to source products from—are letting them and the community down. That is the sense that I get from our guests."³²



³² Dan Van Rite, Personal *interview with intern John Drury*. May 12, 2011.

- In 2010, a state certified food processing facility and community access kitchen opened in Iowa County, Wisconsin named the Wisconsin Innovation Kitchen.³³ This facility allows local food producers to rent the facility on an hourly basis for food processing activities. Another option for local food producers is to give their products and a recipe to the owners of the facility for processing. The facility makes it easier for local food producers to make value-added products that have a longer shelf-life and provide a greater return on investment.
- The Northeast Iowa Food and Farm Coalition (NIFF) was formed in 2006 as a pilot project of the Leopold Center for Sustainable Agriculture. The primary goals of the coalition were to help producers diversify their offerings, to increase the consumption of local food, and to research the possibilities for regional processing and storage facilities. NIFF has been involved in the efforts of Luther College to increase its local food purchasing, and has collaborated with school districts in their region to provide more local food in K-12 institutions. This organization has helped bring the Farm to School program into area schools, which provides students with opportunities to learn about where their food is grown and even plant gardens and build greenhouses at some of the schools.
- At a local food networking event on March 22, 2012, a local donut vendor reached an agreement with the University of Dubuque to serve donuts at sporting events.
- Restaurants are like any other small business; time and money are vitally important resources that often are in short supply. Chef Rob Grisham, from Brasserie V (Madison, WI) had this to say, “We are lucky enough to be able to source 60-70% of our raw food products from local purveyors, and by doing so I save time and money. I no longer have to have my sous chef inspect food as it comes in the back door. Our rejection rate for produce has dropped from around 10-15% to near zero. Our suppliers take pride in their product, and that is reflected in the quality that they deliver me. I am saving five to six hours a week, from one of my most expensive employees, because we simply aren't having to inspect the food as we would have had to had we ordered from one of the national chains.”³⁴
- Not only is Chef Grisham saving money on his payroll, but he also is saving money from his food bill. He continues, “Cryovac diced vegetables are convenient, but pound for pound they cost more. Where I use to use them in my stocks or soups, I am now using the scraps from the night’s mise en place to aromatize my broths. Are the savings immense? No, but a penny here and a penny there can make a significant

³³ Wisconsin Innovation Kitchen. <http://www.wi.innovationkitchen.org/>. Accessed April 17, 2012.

³⁴ Rob Grisham, *Personal interview with intern Jon Drury*. May 15, 2011.

difference at the end of the month. From my experience, the notion that locally sourced products cost more are false. I am still able to give my customers good value for their dollar.”³⁵

- During the most recent economic recession, many successful restaurants have found unique ways to remain relevant. Prix fixe menu options have grown in popularity as a model to reinvigorate patron and staff interest. Jason Hammel, owner of Chicago's Lula Cafe, commented, “We've gone to one set fixed price menu on Monday nights. We are working in a highly competitive space. One way that we've found to differentiate ourselves from the competition is to embrace locally sourced and seasonal products. I wish you could see the look on the kitchen staffs' faces when our network of grower-vendors drop off their foodstuffs. That excitement translates directly onto the plate. Monday nights aren't traditionally strong nights for restaurants, but our bookings on Monday are the strongest all week.”³⁶



³⁵ Ibid, May 15, 2011.

³⁶ Jason Hammel, *Personal interview with intern Jon Drury*. May 12, 2011.

9 Driftless Area Local Food Resource Map

To further the project's public education goal an interactive local food resource map was developed as a visual guide that displays resources supporting the production and consumption of local food within the Driftless Area. These resources include: local food advocacy groups; organizations supporting sustainable agriculture; producer cooperatives; processing facilities; and many others. The primary purpose of providing this resource map is to help parties that are interested in some aspect of local food to identify organizations that can help them achieve their aims. It can help local food producers locate nearby facilities that can process their products, or learn more about sustainable agricultural practices. This map can also be used by local government staff and education and outreach professionals who would like to see what connections can be made between their own organizations and others within the Driftless Area's local food system.

The organizations, groups, and facilities shown on the map were gathered from a variety of sources. The original list of regional assets was generously provided by the Driftless Region Food & Farm Project, which is a program supported by the University of Wisconsin-Madison. This basic list was subjected to extensive revisions, as many of the organizations listed were located well outside of the Driftless Area. Other organizations were found through research, and also from local food producer survey respondents who were asked to share their knowledge of local programs and education

opportunities pertaining to local foods. Details about this survey are discussed in Chapter 6 of this report. The Federally inspected processing facilities were found in an online inspection directory.³⁷ State inspected processing facilities were found from each state's Department of Agriculture website. Consumer food cooperatives and farmers' markets were omitted from the map, as guides listing these resources already exist and are readily accessible to most audiences.

Some local food systems have created printed resource guides which provide descriptions of the mission and purpose of each organization. These guides can be quite lengthy, and may require the user to spend a significant amount of time searching for a particular resource. However, providing the guide in a map format makes it easier for users to see which resources or organizations can be found near their own location. They will then be able to access information pertaining to that specific resource through a hyperlink that routes the user to the organizations' website.

The map was created using Geographic Information Systems (GIS) software. Each organization or facility is shown as a point on the map; different types of resources have been given different point shapes or colors to allow the user to more

³⁷ Food Safety and Inspection Service. *Meat, Poultry, and Egg Product Inspection Directory*. April 17, 2012. http://www.fsis.usda.gov/PDF/MPI_Directory_Establishment_Name.pdf. Accessed April 10, 2012.

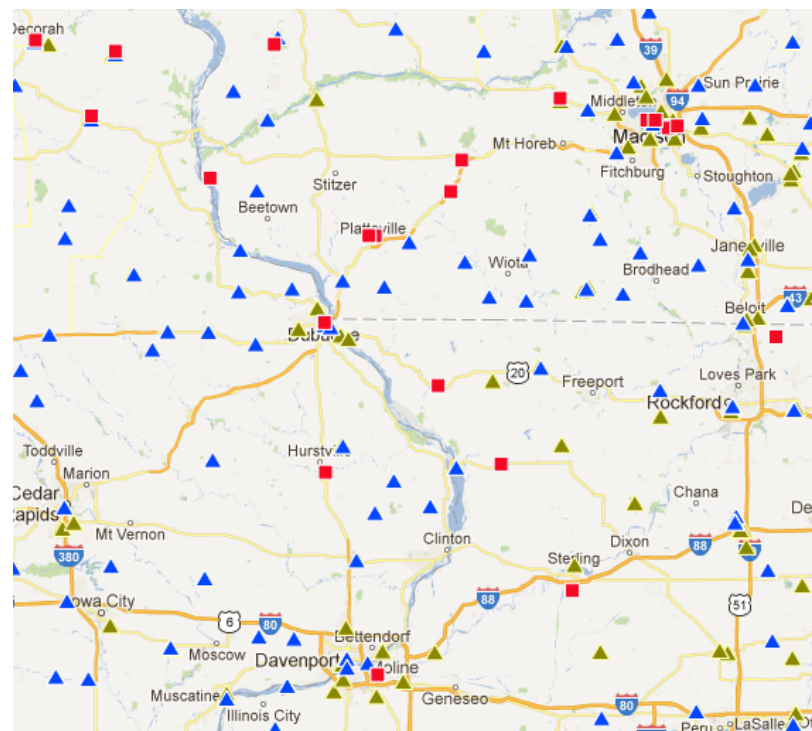
easily identify them. If the user selects the “Identify” option at the top of the screen and then selects a specific point, information about that point will appear. This information can differ depending on the type of resource identified, but may include the name of the organization, the address where it is located, and also the associated website, if it is available. The map has been shared with the Dubuque County Extension office, and can be used by anyone accessing the Extension website.

The map format also makes it easier to update the existing resources without the need for extensive document revisions. The location of each organization or facility is contained within a spreadsheet that is linked to the map. Points on the map can easily be added, altered, or deleted. The resource map will require periodic maintenance to ensure that its contents are kept up-to-date. This could potentially fall under the purview of the Dubuque Local Food Coordinator or another member of Iowa State University Extension’s staff in the future.

Access the Map

To access the Driftless Area Local Food Resource Map, please visit <http://worldmap.harvard.edu/maps/localfood/DLn>.

Figure 19: Resource Map Snapshot



Source: Author, 2012

10 Working with Dubuque Colleges and Universities

The collegiate institutions that had been the focus of this project were Loras College, the University of Dubuque, and Clarke University. An essential first step in this project was to solicit the support from each institution's president and food service coordinator. At the project's start, presidents of the three institutions included in this project had expressed interest but had not yet made a commitment to participate in the project. Furthermore, the food service coordinators at each institution were not yet aware of the project. This initial project condition is important to note because the presidents and food service coordinator at these institutions are ultimately in charge of whether or not local food will be served in their dining facilities.

Early in the project, members of the LFT met with dining service coordinators at Loras College, the University of Dubuque, and Clarke University to introduce the project, discuss the possibility of developing a local food program at the institution, and discuss any initial concerns about the project or developing a local food program. Although the institutions did not immediately commit to developing a local food program, all three institutions were supportive of project goals and agreed to be participants in the project.

Throughout the project, which began in August 2011 and ended in May 2012, the LFT met with dining services coordinators several times. The LFT used these meetings to learn about the institution's current food purchasing and

preparation process, discuss the development of a local food program strategy, and identify specific concerns. From the institution's perspective, the four main concerns in purchasing and serving local foods were cost, safety, transport to the facility, and quantity. Identifying and understanding each institution's goals and initial concerns was essential to the project's success. The final products of this project needed to provide the institutions participating in this project the information they need to achieve their goals, alleviate their concerns, and overcome future obstacles.

One institution in particular was initially perceived as a major challenge in achieving the LFT's overall project goals due to their current purchasing practices. Currently, this institution has a long-term contract with a conventional food distributor and cannot purchase food products outside of this distributor or their approved food producers list. The other two institutions participating in this project were not constrained by an exclusive food distributor contract. In the end, though, what the LFT believed would be a difficult obstacle to overcome became a non-issue in part because the food service coordinator and food distributor for the institution with a long-term contract were willing to explore different options throughout this project.

After establishing project buy-in and working with each institution, the next step in the process of working with the institutions was to organize an event where the food service

coordinators for each institution could be building relationships with local food producers interested in selling their products to collegiate institutions. This networking-type event is discussed in detail in Chapter 12 of this report. In the end, this networking event proved to be the most important element in actually securing each institution's commitment to developing a local food program, especially the institution with the food distributor contract issue. In this case, local food producers that were already certified to sell through the food distributor attended the meeting and brought attention to the fact that local producers can become distributor-certified to meet institutional demand.

Overall, the event was designed to highlight the demand for local food in each institution's dining facilities, introduce local food producers interested in selling their products, and help dining service coordinators take the first major step in building a lasting business relationship with local producers. To ensure each institution continues to develop their local food program, the LFT developed an action plan and guide detailing the process of developing and implementing a local food program along with issues to consider now and in the future. This action plan will be discussed in more detail in Chapter 13 of this report.

Once the LFT's action plan is given to the colleges and universities participating in this project, it is up to each institution to use the material. The LFT encourages university administration to continue supporting the development of a

local food program and also demonstrate the demand for local food dining options. Also, the public and local government, understanding the benefits of a strong local food system, can encourage these institutions to continue in their efforts to create a local food program.



11 Working with Students at Dubuque Colleges and Universities

The LFT's best practices research indicates that successful local food programs begin with a top-down, university administration-driven approach or a bottom-up, student-driven approach. To increase the likelihood of success, the LFT decided to attempt using both approaches. After the LFT identified administrative support and received cooperation from dining services coordinators, student demand and support needed to be identified. If no student demand or support existed at the participating institutions, the LFT would need to continue efforts based primarily on a top-down approach.

To begin, the LFT researched the student organizations at each institution to see if there were existing organizations with a local food or similar, environmental-related mission. The team identified five organizations between Loras College, Clarke University, and the University of Dubuque. The five student organizations include:

- *Clarke Culinary Club – Clarke University*

This student organization is primarily devoted to learning the art of food preparation but is also interested in the development of a local food program

on the Clarke University campus. It is important to note that this organization's advisor is also the Head Chef at Clarke University who has great influence over dining options.

- *Clarke Leading Environmental Action Now (CLEAN) – Clarke University*

CLEAN is a student organization with a mission to increase sustainability awareness through education. This organization also has a special interest in the development of a local food program on the Clark University Campus. With many environmental, economic, and social advantages, increased consumption of local food aligns with this organization's mission.

- *Loras Environmental Action Forum (LEAF) – Loras College*

LEAF is an environmental advocacy student organization with the mission to promote environmental awareness. This organization sponsors activities that enhance the community's understanding

of sustainability. This organization's mission also fits logically with the development of a local food program on the Loras College campus.

- *Peace and Justice – Loras College*

The Father Ray Herman Peace and Justice House Residents strive to live in a way that promotes justice and encourage others on campus to be aware and active about bringing change to the injustices taking place in today's world. This community hosts weekly meetings as part of the Peace and Justice Community at Loras to discuss social justice issues, raise global and local social justice awareness, advocate peace, and sponsor service and charity fundraisers. This group from Loras College also is interested in supporting a local food program on campus.

- *Web of Life – University of Dubuque*

Web of Life is a student organization that promotes environmental awareness and stewardship through activities like roadside litter clean-up and programs to increase recycling. This student organization is also interested in the development of a local food program on the University of Dubuque campus.

Each student organization was contacted by the LFT early in the project to determine whether or not they would be

interested in participating in this project. All of the student organizations were overwhelmingly supportive of this project and were eager to discuss how they could contribute to project outcomes. Leaders from the five student organizations volunteered to circulate a petition at their respective institution to help the LFT gauge student support for a local food program on their campus. The Local Food Team's student intern at the University of Dubuque spearheaded this endeavor by creating a petition the student organizations could circulate. A sample page of the petitions can be found in Appendix D. After circulating for approximately a week, the student organizations from all three institutions and the LFT's student intern compiled a combined 631 signatures. The results of these petitions were shared at a networking event organized by the LFT, which will be discussed in more detail in Chapter 12 of this report.

After the petitions were completed, the Local Food Team continued to involve the student organizations in this project since their support is extremely important. To further involve the students, the LFT invited each organization to the networking event mentioned previously to present their petitions and also be recognized for their efforts. The student organizations were asked to brainstorm ideas for how they could promote the purchase and consumption of local food on campus. These ideas are included in a student-specific chapter of the LFT's action plan and guide for developing an institutional local food program, which will be discussed in more detail in Chapter 13 of this report.

12 Institution-Producer Networking Event

Introduction

To directly facilitate relationship building between institutions and local food producers, the LFT organized and hosted a networking event entitled *Local Food Solutions for Dubuque Institutions*. The primary goal for the event was to provide an environment that would encourage communication between institutions and local food producers regarding the possibility of future business partnerships. Other goals for the meeting include sharing the group's overall project goals and progress with the stakeholders who will be affected by the outcomes of the project, demonstrating the demand for local foods at Dubuque colleges and universities, and providing valuable educational resources to producers and institutions through Iowa State University Extension and Outreach.

The final goal was to encourage information sharing among both institutions and producers. Often times, the most valuable information can be learned from those who have similar goals but different experiences. The LFT also hoped to learn from the institutions and producers at the event. For certain types of information or situations, discussions with experts and stakeholders rather than a literature review of existing research can be much more enlightening.

Event Participants

In order to achieve event goals, there were several individuals and organizations that needed to attend the networking event. Since the LFT's project is focused on three Dubuque colleges and universities—Loras College, University of Dubuque, and Clarke University—it was essential to schedule a meeting at a time when representatives from each institution could attend the event. On the other hand, the LFT also needed local food producers to attend the event so the time of year and time of day were considered when scheduling the event. Regular work hours and the growing season were main determinants. A late winter, early evening event was identified as the best time for institutions, producers, and students.

Event Advertising

Much of an event's success depends on how well the event is advertised to the desired participants. With this in mind, the LFT focused efforts on several different advertising strategies. The LFT personally invited representatives of the three Dubuque colleges and universities, since they have been in regular contact throughout the duration of the project. The Local Food Team also personally invited representatives of the student organizations involved in local food at the three colleges and universities since the team has been in regular contact with these individuals as well.

Taking advantage of the many valuable contacts the LFT has gained throughout the project; some contacts invited other college and university personnel and also other institutions that had shown interest in learning more about local food availability in the Dubuque area. These institutions indicated an interest in learning more about how to integrate local food into their dining services so the meeting was tailored to include these institutions.

One of the major data collection efforts of the project, the producer survey discussed Chapter 6 of this report, provided a valuable medium for gauging producer interest in attending such a networking event and getting the contact information for the producers who indicated an interest. Of the returned surveys, 45 producers were interested in attending a producer-institution networking event, and these producers were sent an email invitation. Other methods for inviting producers included sending the event invitation through the Riverbend Buy Fresh Buy Local email list-serve and having the Local Food Team's project partner from the Iowa State University Extension and Outreach personally inviting producers at local food-related meetings in the Dubuque area. The invitation for the event can be found in Appendix E.

Event Activities

The Local Food Team began the event by sharing the overall outline of the project and current progress to date. The presentation slides can be found in Appendix E. Specific information that the LFT shared included initial analysis of the producer survey responses, which is detailed in Chapter 6. The

most valuable result presented was the percentage of survey respondents who were interested in marketing their products to institutions, 66% of survey respondents. To add to this percentage, 13% were "maybe" interested in marketing their products to institutions leaving 21% of survey respondents who were completely uninterested. Overall, the Local Food Team wanted to highlight the fact that producers in the region are in fact interested in this type of market.

Project Goals and Progress Presentation



Source: Author, 2012

After the opening presentation, a member of the LFT highlighted student involvement from the three colleges and universities. This involved a presentation of petitions circulated by student groups at each institution. The purpose of the petition was to highlight the level of student demand for local food options at these institutions. A combined 631 signatures were collected between Loras College, University of Dubuque, and Clarke University. Refer to Table 9 below for a breakdown of signatures by institution.

Table 9: Local Food Petition Counts and Percentages

School	Signatures	Total Students	Percentage of Total Students
Loras College	204	1,576	13%
University of Dubuque	111	1,600	7%
Clarke University	271	1,232	22%

The petitions were a combined effort between five student organizations—Peace and Justice, LEAF, Clarke Culinary Club, Web of Life, and CLEAN - and the student intern, Jon Drury, from Clarke University. At institutions, especially educational institutions, student involvement and demand are extremely important to the success of a local food program. Best practices research indicated that both bottom-up as well as top-down efforts contribute to the successful implementation of local food programs so the LFT used both approaches.

Student Spotlight



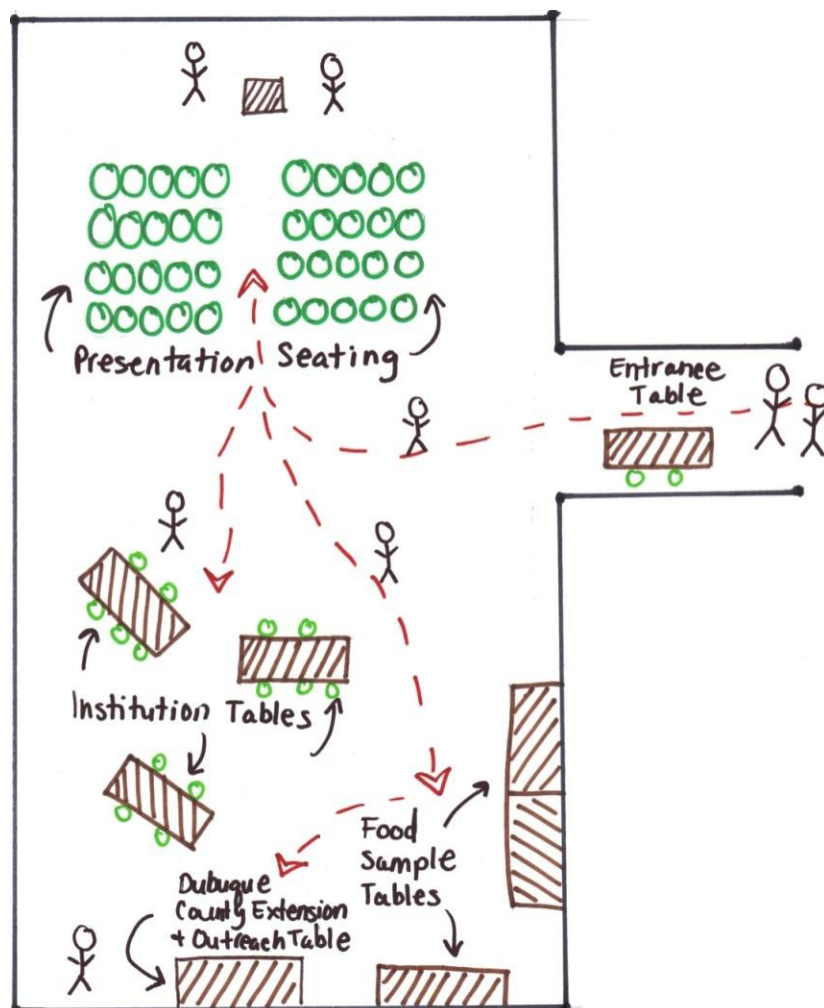
Source: Author, 2012

After the student groups were recognized for their contribution to the project, a representative from Loras College, University of Dubuque, and Clarke University shared their institution’s local food program strategy. These strategies included adding local products of interest to their menus and also dealt with concerns regarding the use of local food products in their dining facilities. To ensure the networking portion of the event was both effective and efficient, the dining service representatives presented to all participants so that each institution could learn about the other’s strategy and all producers could initially decide which institutions may be a better fit. Knowing right away that an institution is looking for a particular product can eliminate the potential for unproductive discussion during a limited amount of time.

It should be noted that one of the institutions was unable to have a representative present at the event so a member of the LFT shared this institution's strategy. A sign-up sheet was left at this institution's networking table so interested producers could provide their contact information so this institution could contact them at a later time. This approach is not as convenient for both parties but may allow for them to spend more time discussing products and concerns at their leisure rather than within the time constraints of the event.

Once the institution presentations were complete the main portion of the meeting, networking, was explained. To ensure the most productive networking possible, the LFT set up the meeting room with individual tables for the representatives from each institution (see diagram of the meeting set-up in Figure 20). Since there were more producers than institutions, the meeting facility was arranged so that interested producers could approach the institutions at their designated table. Based on the best practices research, a handout was prepared to guide the discussion between the institutions and producers to make sure that all important details and concerns were covered in their initial discussion.

Figure 20: Event Facility Set-Up and Participant Traffic



Source: Author, 2012

The discussion handouts were explained during the presentation so both institutions and producers were aware of the items that were important to discuss. In addition, the institutions, which may be less familiar in discussing local food production, were given a copy of the discussion guide before the meeting. Important information in the discussion guide included bullet points pertaining to food quality, quantity and safety as well as prompted discussion about contracts and delivery methods. The discussion guides can be found in Appendix E.

Since building mutual understanding is extremely important to the success of an institution-producer partnership, members of the Local Food Team were observers and stand-by mediators during the institution-producer discussions. This strategy ensured that all details and concerns from the discussion guide were covered, a LFT member was available to answer questions immediately, and the content of each discussion would be known by the other members of the team.

Institution-Producer Discussions



Source: Author, 2012

Since all producers were unable to talk with institutions at the same time, other activities were provided during the networking portion of the event. The LFT project partner from Dubuque County Extension and Outreach, Jason Neises, was available to talk about the different resources Iowa State University Extension could offer local food producers. Also, the remaining team members who were not directly observing the institution-producer discussions were speaking with the students, producers, and other institutions who attended the event.

Dubuque County Extension and Outreach



Source: Author, 2012

As indicated, discussion and information sharing among the meeting participants was another major goal for this event. The opportunity for the LFT to speak with representatives of institutions and producers during the networking portion of the event was invaluable. Team members were also able to learn about institutions aside from colleges and universities that were interested in developing a local food program such as the Sisters of the Presentation and the Dubuque Food Cooperative. Team members were also able to learn more about the producer's challenges and gain a general perspective on how they were thinking about marketing their products to institutions.

Part of the LFT's strategy for making the networking portion of the event successful was to use color-coded name tags for each category of meeting participants. The purpose of color-coding was to allow meeting participants to easily identify who they would like to talk to whether it is an institution, producer, student, local food advocate, or a meeting organizer. The color-coding was especially helpful to the LFT, because it allowed a particular type of meeting participant to be identified to discuss a particular issue.

A major highlight of the event was the local food products available for all meeting participants and the LFT to sample. The producers who confirmed their attendance before the event were encouraged to bring samples of their products. Local food products at the meeting included a wide range of food products and were especially delicious. Producers brought cow's milk, cheese curds, ice cream, summer sausage, granola, donuts, apples, and hot cereal.

The local food product samples were not only a delicious benefit of attending the event but the best way for producers to market their products to institutions. Being able to see and taste the product can instill a higher level of confidence in both the product and producer that merely talking about the product cannot achieve. See pictures of the local food products below.

Local Food Samples at the Event



Source: Author, 2012

Finally, throughout the networking portion of the event, a brainstorming session with students was held to not only provide a meaningful activity for the students but also to hear the students' ideas for integrating more local foods into their dining options on campus. The students who learn, live, and eat on each campus are the best source for creative, simple and practical ideas. Student involvement throughout the project and the ideas shared during the brainstorming session at the event account for most of the student involvement suggested in the action plan and guide produce by the LFT to guide local food program creation and implementation. Details of the action plan and guide are discussed in Chapter 13.

To close-out the meeting after an hour and a half of networking, the LFT created an evaluation form for all meeting participants to complete. These evaluations were created so the Local Food Team could use the comments to assess the success of the event and provide suggestions for improvements in future networking events. Questions on the evaluation form dealt with the usefulness of each element of the event, how the participant discovered the event, the reason for attending the event, and improvements for future events.

Event Outcomes

Overall, *Local Food Solutions for Dubuque Institutions* was a successful event! Excluding the Local Food Team, a project partner, and a representative from the Iowa Initiative for Sustainable Communities, the event was well attended with a total of 33 participants. See Table 10 for total event attendance.

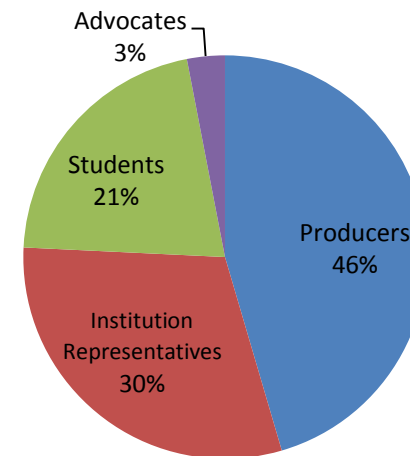
Table 10: Event Attendance

Type of Attendee	Number of People
Event Participants	33
Organizers	7
Iowa Initiative for Sustainable Communities	1
Iowa State University Extension and Outreach	1
<i>Total</i>	42

Source: Author, 2012

Of the 33 participants at the event, producers accounted for nearly half—46%—of all participants. See Figure 21. The initial survey of producers and extensive advertising of the event may have contributed significantly to the high proportion of producers, which was the Local Food Team’s expectation. In the Local Food Team’s best practices research (Chapter 5), an inadequate supply of a variety of local food products was a common concern among institutions so a high number of producers relative to the number of institutions was essential to the success of the event.

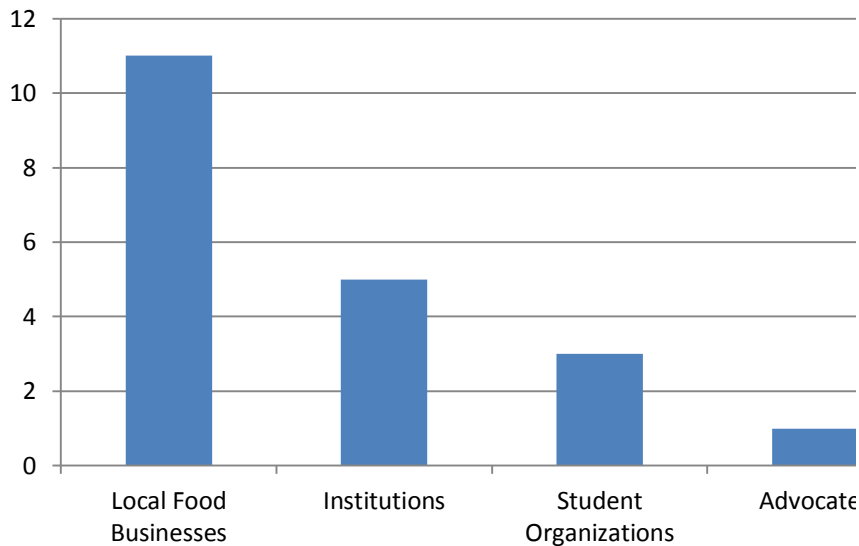
Figure 21: Breakdown of Event Participants



Source: Author, 2012

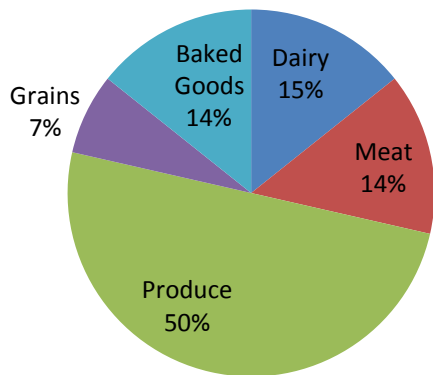
As shown in Figure 22, five different institutions and eleven different local food businesses were represented at the event. The variety of local food businesses at the event represented nearly the entire local food production spectrum as shown in Figure 23. Local food businesses that specialized in produce, dairy, meat, baked goods, and grains were represented at the event. All the types of products that the three educational institutions were interested in purchasing were produced by one or more of the local food businesses at the event.

Figure 22: Organizations Represented at the Event



Source: Author, 2012

Figure 23: Type of Producer at the Event



Source: Author, 2012

A surprise to the LFT was the high level of interest in products that the three institutions did not originally intend to include in their local food program. There was quite a bit of interest in the ice cream and donuts that had been brought for sampling and these products are not typically pursued in the beginning of a local food program. In the Local Food Team’s best practices research, most educational institutions began with the expansion of existing local products, which are usually dairy products, and incorporating a few types of local produce into certain dishes or a salad bar.

Admittedly, attendance is not the only indicator of an event’s success. Whether or not the goals of the event were met is the true gauge of accomplishment. There was a high level of communication among all participants at the event as witnessed by the LFT and shown in photos of the event. Representatives from the Dubuque colleges and institutions were constantly having discussions with producers and truly never received a break aside from sampling the local food products. When producers were not talking with a representative from an institution, they were speaking with Dubuque County Extension and Outreach about education and funding resources or with a Local Food Team member about their ideas for the present and future possibilities for local foods. The entire event lasted a total of two hours and the networking portion of the event accounted for approximately 90 minutes since it was the primary purpose of the event.

Aside from attendance and high levels of communication, an indicator of our event’s success came just a day after the event. A local food business that produces specialty donuts

entered into a contract with one of the institutions to serve their product at the institution's sporting events. High levels of interest shown for other products resulted in producers giving samples of their products to the dining service representatives so they could share their products with others from their institution.

Event Evaluation

Just seven evaluations of the event were completed, which is less than a third of the participants, but the comments provided are extremely valuable. The full evaluation form can be found in Appendix E. From the producer perspective, the major similarity in the evaluations is the need for a greater variety of institutions at this type of event. In the future, including a higher number and more diversified selection of institutions the event would provide a wider range of potential markets and opportunities for producers. On the other hand, this could increase competition among institutions due to a limited number of producers. In the future producer attendance should also increase significantly.

It should be noted that the LFT recommends that a networking event be held annually and expanded each year to include more institutions and producers and no longer focus specifically on colleges and universities in the area. The organization and facilitation of the event would be the primary responsibility of Dubuque County Extension and Outreach and the local food coordinator for the Dubuque area. See Chapter 14, which details the Local Food Team's

recommendations for Dubuque County Extension and Outreach.

Overall there was general satisfaction with the different elements of the event with "Extension Training and Education" receiving lower scores compared to the other elements of the event. The LFT interprets this lower score as a possible failure in not providing enough information in the form of displays, brochures, and dates for future educational opportunities in the area. At future events, more Iowa State University Extension staff and resources should be made available to improve upon this aspect of the event. Other improvements to be made in future events suggested include more advertising of the event, increased student involvement, and that the event to be held more frequently than on an annual basis.

The event can easily be advertised on a larger scale in the future but other suggestions such as increasing student involvement and the frequency of the event may not be feasible. As the event is expanded to include other types of institutions, students may no longer be the primary focus. The people who consume the food served by institutions will be the focus, which may include students, staff, residents, etc. depending on the type of institution. Furthermore, as the project expands, it will become difficult for a third party like the local food coordinator for the Dubuque area to work one-on-one with the consumers at each institution. Specifically, the local food coordinator may not have the time or resources to work directly with each institution's consumers. Using this project as an example, institutions should take their own

initiative to involve their consumers in the creation and implementation of a local food program.

As for increasing the number of events held per year, this would only be possible if the time, resources, and interest exist. Much of this will depend on what organizations will participate in the organization of this event in the future. The Local Food Team encourages the local food coordinator for the Dubuque area to work with Dubuque County Extension and Outreach, local government, food advocacy groups, and interested institutions in organizing future events. The timing of the event and frequency should be carefully considered to ensure that each event is a success.

The final question of the evaluation form asked the participant to provide topics that could be valuable to include in future events. Information about marketing was listed as topic of interest. This topic could either be incorporated into this event as a presentation for producers or could also be a separate workshop-type event provided at a different time of the year so knowledge of marketing strategies could be used at a future networking event. This may become critical as the networking event becomes larger and more competitive. Producers will need to differentiate their business and products in order to capture the attention of institutions when competing amongst a large group of producers.

Aside from evaluation, it is important to follow-up with participants after the event to thank them for their participation and ask for additional feedback. In this case, the LFT project partner sent an email to all of the participants who

provided their email address on the participant roster sheet. The Local Food Team also decided that it was important to share information with the public about the event and its subsequent success. A press release, which briefly summarized the event highlights detailed in this chapter, was shared with all major Dubuque area media outlets. The press release also included contact information for the Local Food Team's project partner so institutions, producers, or anyone else interested can learn more about the event or the Local Food Team's project. The full press release can be found in Appendix E.



13 Action Plan and Guide

A major deliverable of this project is an action plan and guide. Its purpose is to provide the plan of action and information needed for institutions, consumers, local food producers, outreach organizations, local governments, and the general public to create and implement a successful local food program at an institution with dining and food sales facilities. At present, most institutions rely on trial and error or consultation with an institution or organization with experience in local food programs. This approach is extremely time-consuming and not always comprehensive.

This action plan was developed to reduce both repetitive efforts and the misconceptions associated with a local food program (e.g. high cost, safety risk, or time intensive processes). Although focused primarily on post-secondary educational institutions, Dubuque, Iowa, and the Driftless Area, this action plan can be used in a more general capacity to guide the efforts of nearly any institution, producer, local government, outreach organization and the general public in any area.

In the interest of people with limited time the action plan is broken down into chapters for each type of participant in an institutional local food program. Whether it is a dining service professional, local food producer, student, or local official, this action plan provides nearly all the information needed to be an effective proponent or participant in a local food program.

More specifically, this guide provides information in the following manner:

- Chapter 1 - Institutions
- Chapter 2 - Producers
- Chapter 3 - Food safety and risk management
- Chapter 4 - Funding and educational resources
- Chapter 5 - Students, staff, and the general public
- Chapter 6 - City and county government
- Chapter 7 - Local or regional outreach organization

Each chapter of the action plan describes the basic process that a particular type of participant can follow along with common considerations and useful information. At the end of the institutions and producers chapters are action plans that summarize the basic process and considerations for either developing or supplying an institutional local food program. Due to a comparative lack of complexity, chapters for other program participants or proponents do not contain an action plan.

Overall, keep in mind that the process for each type of participant is not necessarily presented in the exact order they should proceed. Certain components of the process are quite logical to complete first or last but others may be better suited at a different time in the process due to how a particular institution, business, or organization operates.

To clarify, Chapter 3 – Food safety and risk management is meant for both institutions and producers. This chapter is separate to avoid repetition and also condense all food safety and risk management into one concise chapter. Where appropriate, this chapter is recommended to institutions and producers to read so neither type of participant will forgo this important information.

When food safety is not considered in the production, processing, transport, or sales of food products, both the producer and establishment are legally at risk. Precautions and practices which insure safe food production, sale, and transportation means that the producer and institution are at a much lower risk should an issue occur. In the end, consumers can be confident in the food they eat. Some form of the Food and Drug Administration's (FDA) *Food Code* is the basis for state regulations affecting the food industry in the majority of all U.S. states.³⁸

The Federal Meat Inspection Act and Poultry and Poultry Inspection Act regulate meat and poultry inspection, which is handled by U.S. and State Departments of Agriculture. This regulation stipulates how food should be handled, processed, and cooked. Records must be kept by those who produce food, process food, or transport food and is a requirement of

³⁸ U.S. Food and Drug Administration, "Real Progress in Food Code Adoptions" <http://www.fda.gov/Food/FoodSafety/RetailFoodProtection/FederalStateCooperativePrograms/ucm108156.htm> (accessed October 12, 2011).

the *Federal Food, Drug, and Cosmetic Act (FD&C)* and the FDA has had authority to access records since January 2011.³⁹

A number of agriculture advocacy groups and universities provide resources to aid farms and establishments in food safety. The University of Minnesota's "Food Safety Plan for You" is a resource that provides templates and log sheets for farms.⁴⁰ Another group that provides similar resources is the On-Farm Food Safety Project.⁴¹ By utilizing templates and log sheets, you are able to easily keep track of operations on the farm applicable to food safety. Both resources for example, allow the food safety plan to be tailored to farm operations. Farm safety plans are useful because they prove to potential customers that food safety is taken into consideration at the farm.

Furthermore, it proves to inspection authorities that actions to prevent food borne illness are being taken. The logs are especially useful if a farm is involved in a food recall and may be beneficial to the farm's defense. Food safety plan resources such as On-Farm Food Safety Project and Food Safety Plan for

³⁹ U.S. Department of Health and Human Services and Food and Drug Administration, *Guidance for Industry Questions and Answers Regarding of Records by Persons Who Manufacture, Process, Pack, Transport, Distribute, Receive, Hold, or Import Food* 2012, 2.

⁴⁰ Agriculture Health and Safety, "Food Safety Plan for You", University of Minnesota <http://safety.cfans.umn.edu/FSP4U.html> (accessed April 1, 2012).

⁴¹ Familyfarmed.org, "On-Farm Food Safety Project" <http://onfarmfoodsafety.org/> (accessed March 30, 2012).

You both prepare farmers for Good Agricultural Practices (GAP) certification. The USDA's *Implementing Farm to School Activities* provides links to many food safety resources on the internet and is an excellent resource for guidance documents.⁴² The Department of Inspections and Appeals and Department of Agriculture are also great resources and are able to provide localized support if there are questions about requirements.

Also, Chapter 4 – Funding and educational resources is meant for multiple audiences: institutions, producers, city and county governments, and local outreach organizations. All participants in a local food program should be aware of the different types of funding and educational resources available so they can work together to take advantage of as many opportunities as possible.

There are grants available for everything from developing an effective local food marketing campaign to providing funds to help producers prolong their growing season through the development of hoop houses. This section also provides information on grants that have been available on an annual basis, the expected dates for upcoming request for proposals and deadlines for submissions of grant applications. Contact information is also provided for each grant so that interested persons will have a source of information immediately available.

⁴² U.S. Department of Agriculture, "Implementing Farm to School Activities" <http://www.fns.usda.gov/cnd/F2S/implementing/safety.htm> (accessed April 1, 2012).

A very simple guide to helping write a competitive grant is also provided in this chapter. This is included so that those unfamiliar with grants and, more specifically, the process of writing a grant will have a basic set of instructions on how to more effectively go about preparing, writing, and submitting a grant that will have a better chance at competing with other communities or agencies seeking the same funding.

Finally, the educational opportunities that currently exist around Iowa are discussed. These include not only educational workshops for farmers that are done through Iowa State University Extension but also more local and informal educational opportunities, such as webinars, which cover a variety of topics from how to extend your growing season to understanding safe handling practices. There are also examples provided of educational opportunities that local governments or outreach programs could feasibly implement in the future. It should be noted the chapter for each type of participant will refer back to Chapter 4 so that it is not forgotten.

Access the Action Plan and Guide

In the future, this plan is to be used not only by collegiate institutions but *any* institution - from restaurants to public schools – that is interested in providing local foods in their dining options. The entire plan can be found Dubuque County Extension and Outreach's website in early June 2012.

14 Project Recommendations

Local Government

The City of Dubuque and even Dubuque County can in fact encourage the sustainable practice of purchasing local foods not only at the individual consumer level, but also at the high volume institution level. In addition, Dubuque area local government can broadly support and even bolster the existing local food system. Based on research and findings, the Local Food Team has compiled a list of several recommendations.

Foster Networking Event – One simple way the City can help foster and maintain producer-consumer relationships is to be involved in an annual networking event that will bring together local food producers and institutions interested in purchasing local food products. This can be a collaborative effort with Iowa State Extension and local government could simply provide a venue for the event to take place and help promote the event in order to raise awareness as well as attendance.

Lead by Example and Share Your Experience – Local government can set an example for local institutions and develop its own local food program using the action plan and guide developed by the Local Food Team. A local food program could be used to provide local food at public meetings, events, and even government office break rooms. Any success in sourcing local food products should be advertised to encourage other institutions to do the same.

It should be noted that the City of Dubuque currently has a local purchasing policy that allows local government to spend 10% more on the purchases of local products under \$500 and 5% more for purchases over \$500. The City also provides local foods for its annual *Growing Sustainable Communities* Conference.⁴³

Be a Source of Information – Sharing your experience leads into this recommendation suggesting that local government can simply be a source of information for institutions interested in purchasing local food products. This report and the action plan developed for this project can be made available to anyone interested in institutional local food programs.

Financial Incentives – Furthermore, local government can provide financial incentives for institutions to local food products. Although difficult during a financially constrained period of time, local government can provide tax credits to businesses and institutions that purchase local foods. Many local governments have considered providing tax breaks to restaurants that purchase local food and to producers who have increased the amount of produce they sell at a local level. An example of providing incentives to grocery stores to sell local products is the City of New York's FRESH program,

⁴³ Cori Burbach, email correspondence to Eric Wilke, April 17, 2012.

which provides real estate tax reductions and sales tax exemptions to grocery stores that sell a full range of local foods.⁴⁴ In addition, local government could consider providing tax credits to local food-related businesses such as local food cooperatives, producer cooperatives, and food processors.

Create a Local Food Policy Council – Creating a local food policy council either at the city or county level is relatively a low-cost method to continue researching local food issues including how to encourage more local food production by decreasing the barriers to production, distribution and overall entry into the local food market. A council of this nature could also explore consumer issues such as access to fresh and healthy food and the public overall perception of local food systems.

These types of councils are common at the county level throughout the U.S. and are becoming more common as both Johnson and Linn County in Iowa are in the process of developing local food policy councils. The Local Food Team is especially recommending the formation of local food policy council because this project was very specialized focusing primarily on institutional local food programs. The food system is a large and complex system that is a major component of overall sustainability that should be explored in greater depth.

⁴⁴ New York City Government website: “Food Retail Expansion to Support Health,” <http://www.nyc.gov/html/misc/html/2009/fresh.shtml> (accessed May 3, 2012).

Dubuque County Extension and Outreach

The Dubuque County Extension and Outreach operating through Iowa State University works with a more regional rather than local perspective like city or county government. In addition, the Extension traditionally works closely with food producers through research and education. This regional perspective and existing relationships can be used to continue to promote the development of local food programs at institutions in a variety of ways. The Local Food Team’s has compiled several recommendations.

Continue to Provide Information – The Dubuque Extension and Outreach Office should continue to serve as a main source of information for local food producers taking into account the results of the local food survey administered by the LFT. The Extension should also make this report and the complimentary action plan and guide available to anyone interested in institutional local food programs.

Organize Institution-Producer Networking Event – Dubuque County Extension and Outreach can also continue to provide networking opportunities for institutions and producers on an annual or bi-annual basis. The Local Food Team encourages Extension to use an event format similar to the format used for the networking event held during this project. Extension could coordinate this event with not only the City of Dubuque but other institutions interested in developing a local food program.

Support Local Food Coordinator in Sustaining this Project –

At the time this report is published, the Dubuque County Extension and Outreach in conjunction with the local resource conservation and development organization plans to hire a local food coordinator. This coordinator will be dedicated to improving the region's local food system by working directly with local food producers but also provide a crucial link between the producer and the consumer in the region. The Local Food Team recommends that the local food coordinator sustains and improves upon this project in the future.

Sustaining this project includes administering the local food producer survey on a regular basis and creating an additional survey for institutions in the Dubuque area to also determine institutional challenges and interest in purchasing local products. Other important project elements include organizing an institution-producer networking event, follow food and safety regulation updates, provided updated information about funding and education opportunities, advertise the benefits of local food consumption and institutional local food program successes, and regularly update the interactive local food resource map.

Students, Faculty, Staff, and the General Public

Student, staff, and public involvement are vital to the success of any local food program. From simply demanding that local foods be available for consumption the public can help increase both awareness and amount of local food available. Methods for demonstrating the demand for local food at an institution can be as simple as circulating a petition and collecting as many signatures as possible or requesting a meeting with administration and dining service personnel to discuss the possibility of serving local food.

The public can also help by supporting both the businesses and institutions that sell local food in the community. They can be involved in the creation of neighborhood gardens, participating in local food events, and other effective ways of building social capital. Increasing the awareness of the importance of local food in the community can be extremely effective.

Appendix—A

Best Practices Research Questions

- 1.) What local foods do you serve?
 - a. Produce? Meat? Dairy? Eggs? Other?
 - b. How much?
 - c. When: All year? Seasonal?

- 2.) What part of your dining services are they served in?
 - a. Cafeteria? Catering? Others?

- 3.) When did you start serving local foods?

- 4.) Why did you decide to start serving local foods?
 - a. Was it beneficial to the university?
 - b. Was it just to be a good steward?
 - c. Was there student demand?
 - d. Other benefits?

- 5.) What steps were involved in starting a local foods program?
 - a. Was it from the top-down (i.e. administration)? Bottom-up (i.e. students)?
 - i. Do you have any names of people we could contact about it?
 - b. Did you start converting one particular part of the menu? Or one particular part of the food services?
 - c. Were there risk-management issues to deal with? Other issues?

- 6.) What are the major obstacles the local foods program has faced?
 - a. How is issue of food safety addressed?
 - b. Do you anticipate similar or new obstacles in the future?

- 7.) How does the university define local? Iowa only? X-mile radius?
- 8.) What strategies do you use to deal with the seasonality of local foods?
- 9.) Has the university's demand for local food had any impact on farmers to increase production outside the growing season?
 - a. If yes: Has the university helped scale up production? How?
- 10.) Does the food already come processed and ready to use? What is the extent of the food preparation/processing done at the university?
- 11.) Were there any operational changes that needed to be made in order to accommodate local foods?
 - a. Washing the food? Preparing the food differently? Pick-up of the food? Storage?
- 12.) How many local food producers do you work with directly to meet your needs?
 - a. How many individual farmers? How many co-ops?
- 13.) How did you find the producers?
- 14.) We don't need to know specifics, but can you give me a general idea of items you would see in a contract with local producers?
- 15.) Is local food more expensive?
 - a. Can you tell us by how much?
 - b. How do you accommodate for this price differential?
 - c. Is there a way the university measures the costs and benefits of their local food program? If yes, how?
- 16.) Do you have any plans to increase the amount of local foods that the university consumes?
- 17.) What would you suggest to another college or university that is trying to implement a local foods program?

Appendix – B

Driftless Area Local Food Producer Survey

Driftless Area Local Food Producer Survey

1. What is the name of your farm/operation? _____

2. On your farm/operation, what food product(s) do you grow, raise, or produce?

<u>Product</u>	<u>Amount (Optional)</u>

3. What production method(s) do you use? Please check all that apply.

- | | | |
|--|--|--|
| <p><u>Vegetable and Fruit</u></p> <p><input type="checkbox"/> Greenhouse</p> <p><input type="checkbox"/> Hydroponic</p> <p><input type="checkbox"/> High tunnel</p> <p><input type="checkbox"/> Non-certified organic</p> <p><input type="checkbox"/> Certified organic</p> <p><input type="checkbox"/> GAP</p> | <p><u>Dairy</u></p> <p><input type="checkbox"/> Grass fed</p> <p><input type="checkbox"/> Hormone free</p> <p><input type="checkbox"/> Antibiotic free</p> <p><input type="checkbox"/> GAP</p> <p><input type="checkbox"/> Other: _____</p> | <p><u>Meat</u></p> <p><input type="checkbox"/> Grass fed</p> <p><input type="checkbox"/> Free range</p> <p><input type="checkbox"/> Antibiotic free</p> <p><input type="checkbox"/> Non-certified organic</p> <p><input type="checkbox"/> Certified organic</p> <p><input type="checkbox"/> GAP</p> |
|--|--|--|

Other: _____

Other: _____

4. What type of value-added product(s) do you produce? Please check all that apply.

Preserves/Jams

Processed products

Frozen products

Pre-packaged products

Preserved products

Pre-cooked products

Other (please specify): _____

5. How / to whom do you typically sell your products? Please check all that apply.

Households via Farmers' Markets

Households via CSAs

Restaurants

Grocery Stores

Cooperatives

Food Distribution Companies

Other (please specify): _____

6. Would you be interested in participating in a local producer cooperative?

Yes

No

7. In which state(s) do you mainly sell your products? (Check all that apply)

Iowa

Illinois

Minnesota

Wisconsin

Other States

8. Do you sell your products mainly:

Locally (within 50 miles of your farm)

Regionally (within the Driftless area)

9. What are your main challenges in selling your products?

10. What barriers related to food safety or other regulations do you encounter, if any? Please explain...

11. Are you aware of programs or educational opportunities for local food producers?

Yes

No

a. If yes, what are these programs or educational opportunities?

b. If yes, which programs have you taken advantage of?

c. If yes, what programs did you feel were effective and why?

d. If not, what were the barriers to participation (i.e. cost, time, distance, etc.)?

12. Are you interested in selling your products to colleges and universities?

Yes

No

13. Are you interested in participating in a meet-and-greet event with dining service directors and food purchasers from local colleges and universities? This event would take place in Dubuque sometime during the month of March.

Yes

No

If you answered Yes to questions 12 or 13, please provide your contact information below or provide the method in which you prefer to be contacted. Your information will only be used to contact you regarding the upcoming meet-and-greet in Dubuque.

Name: _____

Phone number: _____

Address: _____

Email address: _____

14. What challenges would you expect from selling to colleges and universities in the Dubuque area?

15. Please include any additional comments or suggestions that may help make selling locally produced food products easier for you below.

Educational Opportunities Listed in Question 11 on Survey:*

Certified Pesticide Applicators
Iowa State University Extension
Wisconsin Department of Agriculture
Dane County Buy Local
Dairy Business Innovation Center
MOSES
Land Stewardship Program
GAP Training/Food Safety
Natural Resource Conservation Service
Natural Sustainable Agriculture Information Service (ATTRIA)
University of Minnesota
Practical Farmers of Iowa
Master Gardener Classes
Northeast Iowa Food and Farm Coalition
Wisconsin Fruit and Vegetable Growers Conference
Something Special from Wisconsin with Farmers Union
Slow Money
Buy Fresh Buy Local
Resource Conservation and Development
United States Department of Agriculture
Opportunity Center
Women Food and Agriculture Network
Animal Welfare Approved
Illinois Beef Association
Annie's Project ISU Extension
Berry Growers' Association
High Tunnel Workshop

Illinois Wine
Grape Growers' Association
Michael Fields Agricultural Institute
Madison Area CSA Coalition

*Note: Only organizations that could be found when doing web searches were included in this list.

State and Federal Regulation

Requirements for the production, processing, manufacturing, and transport of food affect producers and institutions in a couple of ways. Federal law may supersede state requirements and therefore shape how state's food safety and inspection programs are implemented. Products which are more likely to transmit food-borne illnesses such as meat and poultry are typically regulated separately from fruit and vegetable. Products which are more likely to transmit food-borne illness are known as "at risk products." At risk products have stricter requirements in most versions of the *Food Code* that states have implemented, while meat and poultry is regulated separately. 21 USC §601-695 contains the requirements of the *Federal Meat Inspection Act (FMIA)*, the FMIA states the requirements for meat inspection.⁴⁵ Poultry products are regulated under 21 USC §451-472 (*Poultry and Poultry Product Inspection*).⁴⁶

Since Driftless Area states—Wisconsin, Illinois and Iowa—have adopted the *2005 Food Code*, the *2005 Food Code* will be referenced. Iowa Code is referenced in order to show how federal law and programs are implemented at the state level.⁴⁷ State meat and poultry inspection programs are

⁴⁵ U.S. Food and Drug Administration, "Federal Meat Inspection Act," in *U.S. Code*, ed. U.S. Department of Agriculture (2011).

⁴⁶ Food Safety and Inspection Service, "Poultry and Poultry Products Inspection " in *U.S. Code* (Washington D.C.).

⁴⁷ FDA, "Food Code Adoptions".

required to be "at least equal" to the Federal inspection requirements.⁴⁸ Meat and poultry must be processed at a federally inspected facility in order to be sold across state borders, even if state inspection programs are "at least equal" to federal requirements.⁴⁹

Federal Regulation

2005 FDA Food Code-

The FDA's *2005 Food Code* has been adopted by 23 of 50 U.S. States, while only 4 states have adopted the newer *2009 Food Code*⁵⁰. The FDA defines the *Food Code* as "a model for safeguarding public health and ensuring food is unadulterated and honestly presented when offered to the consumer."⁵¹ The *2005 Food Code* is broken into 8 chapters and covers or references all aspects of fruit, vegetable and meat safety.

⁴⁸ Food Safety and Inspection Service, "At Least Equal to" *Guidelines for State Meat and Poultry Cooperative Inspection Programs*, 2008, 3.

⁴⁹ National Association of State Departments of Agriculture, "Interstate Sales of State-Inspected Meat and Poultry," <http://www.nasda.org/cms/7196/7357/8552/8613.aspx> (accessed October 30 2011).

⁵⁰ FDA "Food Code Adoptions".

⁵¹ U.S. Department of Health and Human Services, "Food Code 2005," (College Park, MD: 2005).

The organization of the code is as follows:

1. Chapter 1 of the *2005 Food Code* defines all terms applicable to the implementation of the code.
2. Chapter 2 defines supervision, employee health, personal cleanliness, and hygienic practices.
3. Chapter 3 covers characteristics, sources, specifications and containers, protection from contamination, destruction of organisms of public health concern, limitation of growth of organisms of public health concern, food identity, preservation, and labeling, handling contaminated food.
4. Chapter 4 states the requirements for equipment, utensils, and linens.
5. Chapter 5 defines water, plumbing, and waste service.
6. Chapter 6 defines aspects for physical facilities.
7. Chapter 7 defines poisonous or toxic materials.
8. Chapter 8 defines compliance and enforcement.

Chapter 1 – Purpose and Definitions

Chapter 1 should be read before any other chapter of the *Food Code* because it defines each term applicable to the interpretation of the code. For example, *Food Establishment* is defined as “...an operation that stores, prepares, packages, serves, vends or otherwise provides food for human consumption...” but is not “an establishment that offers only prepackaged foods that are not potentially hazardous (time/temperature control for safety) foods; a produce stand that only offers whole, uncut fresh fruits and vegetables; a food processing plant...”⁵²

⁵² *Ibid.*, 8-9.

The definitions within Chapter 1 are instructive in defining the types of licenses that may be required for the producer or institution. Tables A and B of Chapter 1 define the interaction of pH levels and water activity for packaged/non-packaged foods, in order to judge whether the food is potentially hazardous, whether time/temperature control is needed, or product assessment is needed.

Chapter 2 – Management and Personnel

Chapter 2 defines requirements for supervision, employee health, personal cleanliness, and hygienic practices. This chapter directly regulates the administration and operation of food establishment (as defined in Chapter 1) hygiene and overall cleanliness. The permit holder for a food establishment must designate a person in charge and ensure that a person in charge is present at the establishment during all operating hours.⁵³ The person in charge must be able to demonstrate the knowledge of food borne disease prevention, application of the Hazard Analysis and Critical Control Point (HACCP) principles, and requirements contained within the *Food Code*.

For example, the person in charge should be able to:

1. Describe the relationship between food borne disease and personal hygiene
2. Explain the responsibility of a person in charge
3. Describe symptoms associated with food borne diseases
4. Explain the significance between time and temperature of potentially hazardous food

⁵³ *Ibid.*, 23.

5. Explain the hazards involved with raw or undercooked meat, poultry, eggs, and fish
6. State required cooking times and temperatures for the storage, hot holding, cooling, and reheating of potentially hazardous food
7. Identify and describe foods identified as major food allergens
8. Identify poisonous or toxic materials in the food establishment
9. Identify critical control points that may contribute to the spread of food borne disease and explain steps taken to ensure that the points are controlled

The person in charge has a number of requirements that should be taken seriously. For the detailed list of requirements, please see 2-103.11A-M of the *2005 Food Code*.

Food establishment employees have a number of obligations that should be enforced by the person in charge. 2-201.11(A)(1-5) defines reportable symptoms, reportable diagnoses, reportable past illness, and reportable history of exposure. Employees experiencing vomiting, diarrhea, jaundice, sore throat with fever, or lesions, must report symptoms to the establishment's person in charge.⁵⁴ Diagnoses such as norovirus, hepatitis A, Shigella, E. Coli, or Salmonella also must be reported. If these symptoms are reported, the person in charge must inform the regulatory authority that has jurisdiction over the establishment. The requirements are defined in detail in 2-201.1 and further explain how employee illness should be handled. Personal

⁵⁴ *Ibid.*, 29.

cleanliness and hygiene are similarly handled within sections 301-304 and 401-403.

Chapter 3 – Food

Chapter 3 contains 8 subsections that state the requirements for food. Section 3-201 defines how food must comply with food law. Packaged food must be labeled in compliance with 21 CFR 101, 9 CFR 317, and 9 CFR 381 and essentially should state that they are properly sourced, the type of meat, the meat cut and more. Meat should be labeled by the food processing plant when it is cut from whole-muscle intact beef. Sourcing and processing on food should generally be clearly labeled. Potentially hazardous food should be received at a temperature of 41 degrees Fahrenheit or less, eggs in particular must be received at 45 degrees or less. Eggs and milk products must be pasteurized before a food establishment can receive it.⁵⁵

Chapter 3-301-307 of the *Food Code* details methods in preventing food contamination after receiving. In addition to washing their hands as required in 2-301.12, employees of a food establishment should not contact ready-to-eat food with their bare hands except when washing fruits and vegetables. Employees should utilize utensils such as deli tissue, spatulas, tongs, single-use gloves, or dispensing equipment when handling ready-to-eat food. If an employee must taste food that will be sold or served, they may not use a utensil more than once. Food should be protected from cross contamination by separating raw animal foods during storage,

⁵⁵ *Ibid.*, 52-54.

preparation, and should be clearly displayed. This means that different equipment should be used in preparation of raw and ready-to-eat foods, storage should be designed to prevent cross-contamination, and different food types should be prepared in different areas or at different times. Single-use gloves may only be used for one task, used for no other purpose and shall be discarded once damaged, soiled, or interruption in operation occurs.⁵⁶

Section 4 of the chapter covers cooking methods to destroy organisms of public health concern. Raw animal foods such as eggs, fish, meat, or poultry must be cooked at least 145 degrees Fahrenheit or higher for 15 seconds. The section goes into detail of proper preparation methods for all at-risk products. Furthermore, for items such as roasts, the preparation details are based upon the type of cooking equipment. Section 5 is similar, and covers the limitation of organisms of public health concern. For example, thawing potentially hazardous food may occur under refrigeration under 41 or 45 degrees Fahrenheit, submerged under water less than 70 degrees Fahrenheit or in a way that prevents any portion from rising above 41 degrees Fahrenheit.⁵⁷ It is recommended that Food Establishments review Chapter 3 and make sure they understand their requirements for food handling and preparation.

⁵⁶ *Ibid.*, 61-67.

⁵⁷ *Ibid.*, 79.

Chapter 4 – Equipment, Utensils, and Linens

Chapter 4 covers equipment, utensils, and linens within food facilities. Utensils and food-contact surfaces should not allow colors, odor or taste to be imparted to food and should be safe, durable, nonabsorbent, should withstand repeated washing, and resistant to pitting, chipping, crazing, scratching, or decomposition. No food-contact surface may contain more than 3.0 MG/L of lead (specific category limits are defined in 4-101.13). Equipment used to measure the temperature of food should be accurate to 1 degree Celsius of intended use or 2 degrees Fahrenheit of intended use.⁵⁸ This section should be referenced to insure that temperature measuring devices and other establishment equipment operates correctly.

Chapter 5 – Water, Plumbing, and Waste

Water, plumbing, and waste services are regulated by the code. Drinking water and food used as an ingredient must meet 40 CFR 141 National Primary Drinking Water regulations if it comes from a public water system, while nonpublic water sources will have to meet state drinking water quality standards. Food establishments must be able to ensure that their water source has sufficient capacity to meet peak demands of the establishment.

Plumbing used for the water supply and water facilities must be constructed with specific materials and be able to operate at a specific capacity. Hand washing sinks must be able to provide water at least 100 degrees Fahrenheit and be able to

⁵⁸ *Ibid.*, 102 - 107.

provide a flow of water at least 15 seconds long. Hand washing sinks may only be utilized for hand washing, and are not allowed for other purposes. The sinks should be located in a convenient location for employees to use, such as in or adjacent to toilet rooms.⁵⁹

Sections 5-4 and 5-5 define the handling of sewage, refuse, and recyclables. Section 5-401.11 dictates sewage holding tank requirements for mobile food establishments: the tank must be sized 15% larger in capacity than the water supply tank, with a 1 inch diameter drain that is shut-off valve equipped. Equipment used for refuse and recycling should be easy to clean and equipped with tight-fitting lids, doors, or covers. Please see Chapter 6 for specific indoor storage area requirements.

Chapter 6 – Physical Facilities

Chapter 6 defines the requirements for the physical facilities – both indoor and outdoor. Indoor floors, walls, and ceiling surfaces should be smooth, durable, and easily cleanable where food operations are conducted. Carpet in a food establishment may be a closely woven and easy to clean carpet, however, preparation areas must only have non-absorbent materials for floor, wall, and ceiling. Light bulbs should be shielded, coated, and shatter-resistant where they are exposed to food, food equipment, utensils, and linens. If insect control devices are utilized, they should be of a design which retains the insect within the device and may not be

⁵⁹ *Ibid.*, 146 - 151.

located over food preparation areas. Cleaning of the facility should occur at a time when the least amount of food is present.⁶⁰

Chapter 7 – Poisonous or Toxic Materials

Chapter 7 regulates the handling and operation of poisonous or toxic materials. Poisonous and/or toxic materials (e.g., cleaners, sanitizers) must be clearly and individually identified with labels. These materials should also be separated in order to prevent food, food equipment, and utensils from being contaminated. This can be done through spacing or portioning while also not locating the material above food, food equipment or utensils. Only poisonous and toxic material essential to operation of the facility is allowed and should be an allowable product as contained within Section 7-2.

Chapter 8 – Compliance and Enforcement

Chapter 8 stipulates how compliance and enforcement of the *Food Code*. Regulatory authorities shall apply the code to safeguard public health and ensure that food is safe and honestly presented to the consumer. The regulatory authority should enforce the code while considering whether the facility or equipment are in good repair and capable of being maintained in a sanitary manner, that food-contact surfaces comply with Chapter 4-101 and that capabilities of cooling, heating and holding equipment comply with 4-301.11.⁶¹

⁶⁰ *Ibid.*, 170-176.

⁶¹ *Ibid.*, 189-190.

The regulatory authority should receive an intended menu, anticipated volume of food to be stored, prepared or sold, proposed layout with schematics and construction materials, types of equipment, and potentially a HACCP plan. A HACCP plan may be required if a variance to law is permitted, or if potentially hazardous foods are used. The food establishment may not operate until a valid permit is issued by the regulatory authority; the permit should be applied at least 30 days before intended operation of the establishment. Permit application requirements are specified in Chapter 8-302.14.⁶²

The establishment should be inspected by the regulatory authority every 6 months, but may be extended if the establishment is operating under an approved and validated HACCP plan. The regulatory authority may also prioritize and conduct inspections based upon the site's history of compliance with the code as well as their potential to spread food borne illness. The details of inspections are considered public documents and shall be available to disclosure to a person if requested.⁶³

⁶² *Ibid.*, 196-198.

⁶³ *Ibid.*, 207.

Meat Inspection Act -

21 USC 601-695 is known as the *Federal Meat Inspection Act* (FMIA) and defines the slaughter, processing, and inspection of meat products.

§ 601. Definitions

21 USC 601 defines terms for interpreting the FMIA. Some of the key terms are as follows:

- **Firm:** Any partnership, association, unincorporated business organization.
- **Meat broker:** A person, firm or corporation which buys or sells carcasses, parts of carcasses, meat, or meat food products of cattle, sheep, swine, goats, horses, mules, or other equines.
- **Animal food manufacturer:** Any person, firm or corporation engaged in the business of manufacturing or processing animal food derived wholly or in part from carcasses.
- **Commerce:** Commerce between any State, Territory, or District of Columbia
- **Meat food product:** Any product capable of use as human food which is made wholly or in part from any meat, or other portion of the carcass of cattle, sheep, swine, or goats.
- **Capable of use as human food:** Applies to any carcass, part or product of a carcass unless denatured as identified by regulations of the U.S. Department of Agriculture (USDA) or otherwise considered naturally inedible by humans.

- **Prepared:** The term means slaughtered, canned, salted, rendered, boned, cut up, or otherwise processed/manufactured for use.
- **Adulterated:** A product is adulterated if it bears poisonous substance which renders it injurious to health (except in the case that the substance is not an added product), if it bears substances which render it unfit for human food, and if it has been prepared, packed or held in insanitary conditions.
- **Misbranded:** A carcass, part of a carcass, meat, or meat food product may be misbranded when its labeling is false or misleading, offered for sale under the name of another food, or if it is an imitation of another food.
- **Official mark:** An official inspection legend or any other symbol prescribed by regulations of the USDA to identify the status of any article or animal under the chapter.
- **Official inspection legend:** Any symbol prescribed by regulation of the USDA showing that an article was inspected and passed in accordance with this chapter.
- **Amenable species:** Any species subject to the provisions of 21 USC 601-695, catfish, and any additional species deemed appropriate.

§ 602. Congressional statement of findings

Meat food products are considered important to the supply of food within the U.S. and are a product which primarily moves in interstate commerce. Meat and meat product regulation is required because “unwholesome, adulterated, or misbranded meat or meat products impair the effective regulation of meat and meat products in interstate or foreign commerce...” and is

seen as a risk for health and food markets.⁶⁴ Successful regulation will utilize cooperation between the USDA and applicable State agencies.

§ 603. Examination of animals prior to slaughter; use of humane methods

All amenable species that are to be slaughtered, packed, meat-canned, or rendered for commerce shall be examined and inspected prior to slaughter. Animals showing symptoms of disease must be set apart and slaughtered separately carefully examined. Inspectors will also be appointed to prevent the inhumane slaughter of livestock by examining and inspecting methods by which amenable species are slaughtered. Inspection may be refused if it is deemed that any cattle, sheep, swine, goats, horses, mules or other equines have been slaughtered outside of what is permitted by law.⁶⁵

§ 604. Post mortem examination of carcasses and marking or labeling; destruction of carcasses condemned; reinspection

Post mortem examination and inspection of the carcasses and parts of all amenable species intended to be prepared at any slaughtering, meat-canning, salting, packing, rendering or similar establishment in any State or Territory. This examination is required for any product intended for commerce and must be stamped “Inspected and passed” or

⁶⁴ U.S. Food and Drug Administration, "Federal Meat Inspection Act," 434-436.

⁶⁵ *Ibid.*, 438.

“Inspected and condemned.”⁶⁶ If the product is condemned, the product must be destroyed in the presence of a food inspector.

§ 605. Examination of carcasses brought into slaughtering or packing establishments, and of meat food products issued from and returned thereto; conditions for entry

All carcasses or parts of carcasses to be brought into slaughtering, meat-canning, salting, packing, rendering, or similar establishments must be previously examined and inspected before entering a facility. The USDA may limit the entry of carcasses or parts of carcasses that are intended to be meat or meat food product.

§ 606. Inspection and labeling of meat food products

Inspectors appointed for the examination and inspection of meat food products in slaughter, meat-canning, salting, packing, rendering, or similar establishments must have access to said facility at all times of day or night whether the facility is operated or not.

§ 607. Labeling, marking, and container requirements

When any meat or meat food product prepared for commerce which has been inspected and considered “Inspected and passed” is placed within any type of container, said container must also be labeled in the presence of an inspector.⁶⁷ The requirements of the chapter shall not be deemed complete

⁶⁶ *Ibid.*, 438-489.

⁶⁷ *Ibid.*, 440.

until meat or meat product has been sealed or enclosed within a container and labeled under supervision of an inspector. All containers with meat or meat food product must be clearly labeled by the time they leave the establishment.

§ 608. Sanitary inspection and regulation of slaughtering and packing establishments; rejection of adulterated meat or meat food products

Experts in sanitation or otherwise competent inspectors shall inspect all slaughtering, meat-canning, salting, packing, rendering or similar establishments where amenable species are slaughtered and the meat or meat food product are intended for commerce. If the establishment is not deemed sanitary, the inspector should refuse any meat or meat food product to be labeled “inspected and passed.”⁶⁸

§ 609. Examination of animals and food products thereof, slaughtered and prepared during nighttime

The examination and inspection of all amenable species and food products thereof, slaughtered and prepared in the establishments for commerce shall occur at nighttime as well as daytime.

§ 610. Prohibited Acts

No person, firm, or corporation should slaughter any animals or prepare any such articles which are capable for use as human food for commerce except in compliance with 21 CFR

⁶⁸ *Ibid.*, 441.

610-695. Product intended to be used as human food and commerce must be humanely slaughtered.

§ 611. Devices, marks, labels, and certificates; simulations

No brand manufacturer, printer, or other person, firm or corporation may print, cast, lithograph, or otherwise make any device containing any official mark bearing a form of official certificate except as authorized. Similarly, no one shall possess or use a counterfeit device to attach an official certificate of inspection.

§ 612. Notification

Any establishment subject to inspection that has reason to believe or believes that adulterated or misbranded meat or meat product has been received by or originated from the facility shall notify the USDA.

§ 613. Plans and reassessments

Each establishment subject to inspection shall prepare and maintain procedures for the recall of all meat or meat food products produced or shipped by the establishment. The establishment shall document each reassessment of the process control plans for the establishment and upon request, make the procedures and reassessed process control plans available to inspectors.

§ 623. Exemptions from inspection requirements

Persons wishing to slaughter for personal, household, guest, and employee use are exempt from inspection requirements, except where the product is also intended for commerce. Product intended for personal use should be marked “Not for Sale.”

§ 624. Storage and handling regulations; violations; exemptions of establishments subject to non-Federal jurisdiction

The Secretary of the USDA may by regulation prescribe conditions for which carcasses, parts of carcasses, meat, and meat food product are stored and held when capable of use for human food. Regulations do not apply to the storage and handling of such articles at retail or similar establishments only because of purchases in commerce.⁶⁹

§ 642. Recordkeeping requirements

Persons, firms, and corporations shall keep records as willfully and correctly disclose all transactions involved in their businesses and must provide access to their facility by inspectors upon request. Records should cover the slaughtering, preparing, freezing, packaging, and labeling of human or animal food.

⁶⁹ *Ibid.*, 451.

§ 645. Federal provisions applicable to State or Territorial business transactions of a local nature and not subject to local authority

Where it is determined by the USDA that a State or Territory does not provide at least equal authority under its laws or does not effectuate the purposes of 21 CFR 601-695, establishments are still responsible to the requirements of the chapter as if they were in business for commerce or the transactions were in commerce.

§ 661. Federal and State cooperation

Congress shall protect the consuming public from meat and meat food products which are adulterated or misbranded by working with States and other Government agencies by:

- Developing and administrating State meat inspection programs
- Help in advisory assistance, technical and laboratory assistance, training, financial and other aid, equitably allocate Federal funds, and more
- Create advisory committees⁷⁰

The USDA is to work with States in the development and administration of State meat inspection programs and that they carry out the provisions of the FMIA. If States are found to not be developing or enforcing its meat inspection jurisdiction for two years, the Governor of the State will be required to designate that fact in the Federal Register.⁷¹

⁷⁰ *Ibid.*, 452.

⁷¹ *Ibid.*, 453.

§ 671. Inspection services; refusal or withdrawal; hearing; business unfitness based upon certain convictions; other provisions for withdrawal of services unaffected; responsible connection with business; finality of Secretary's actions; judicial review; record

If it is found that an establishment is deemed unfit to engage in business requiring inspection, the Secretary of the USDA may choose to revoke inspection services from the establishment⁷². The person or business may be unfit if convicted in a State or Federal court for any felony or violation of a law other than a felony based on the acquiring, handling, or distribution of unwholesome, mislabeled, or deceptively packaged food.

⁷² *Ibid.*, 454.

Federal Poultry and Poultry Products Inspection -

21 CFR 451-472 is the Poultry and Poultry Products Inspection requirements and is structured similarly to the FMIA. Since poultry and poultry product inspection is similar to the FMIA, it is recommended to refer to the Federal regulation or State statutes if there are concerns.

Food Safety Modernization Act -

The Food Safety Modernization Act (FSMA) was codified on January 4th, 2011. FSMA made amendments to the Federal Food, Drug and Cosmetic Act (21 USC 301 et seq.). It represents a major change for food safety for a number of reasons. The law gave the FDA authority to prevent the release of adulterated or misbranded foods into the marketplace by eliminating the food from distribution channels while the agency pursues enforcement actions or legal action.

Another major change was the ability access business records for potentially hazardous foods or foods that may be a health hazard. Before FSMA, the FDA did not have the power to suspend registration of facilities or require a food recall. Without registration, a facility may not manufacture, process, pack, or otherwise offer food for sale within the U.S. The law mandated the FDA to require comprehensive prevention-based controls for the food supply, how often FDA is to inspect food producers, ensure the safety of imported food,

mandated the FDA's recall authority, and promotes collaboration among all food safety agencies.⁷³

The FDA inspection mandate required inspections and inspection frequency based upon risk. All high-risk domestic food facilities will be inspected within five years of the bill's signing and then at least every three years while other establishments will be inspected within seven years from signing, and at least every five years afterwards. The FDA recognizes a facility as high-risk when there are known safety risks with the food manufactured, processed, packed or held, or issues historically with compliance/violations in food safety standards. For example, if a facility manufactures food commonly associated with food borne illness outbreaks and food recalls, then the facility will be placed in the high-risk facility category. All facilities covered by the FDA will need to write a preventative controls plan tailored to their facility and then monitor to make certain that the controls function properly.⁷⁴

Eventually, portions of FSMA will be released that regulate activities constituting on-farm packing, on-farm holding of food, on-farm manufacturing or processing of food, but has not been published yet. While the on-farm activities portion of FSMA has yet to be clearly defined, farms may begin by assessing operations for food safety concerns and reviewing

⁷³ U.S. Food and Drug Administration, *FDA Food Safety Modernization Act Frequently Asked Questions*, 2012, 3.

⁷⁴ *Ibid.*, 22.

Good Agricultural Practices. As of now, farms earning less than \$500,000 annually from the sales of food are exempt from hazard analysis requirements. There are also similar exemptions in FSMA for produce safety and direct farm marketing. The FDA and the USDA Agricultural Marketing Service will collaborate with stakeholders to ensure that farmers are properly informed of changes.

FSMA represents the overhaul of an old food inspection system dating to the 1930s, but does so for all foods except meat and poultry. The regulatory authority of food safety is split between the FDA and USDA, and the act therefore does not have a large impact on meat and poultry distribution. FSMA moves FDA's mandate from reaction to food safety issues to being able to consider preventative techniques in food safety.⁷⁵ Due to FSMA, federal grants may now build state and local capacity for food borne illness surveillance, detection, testing, and response in conjunction with the FDA. The inability for the law to affect meat and poultry may be a negative aspect of the regulation, but it is a major update to the agency's power.

⁷⁵ *Ibid.*, 917.

State Regulations

Iowa Department of Inspections and Appeals -

The Iowa Department of Inspections and Appeals (IADIA) utilizes the *2005 Food Code* as codified in Chapter 137F of the Iowa Code.⁷⁶ IADIA has entered into contracts with cities and counties to perform inspections for 60% of the state. IADIA does its own inspections in 38 counties. High risk establishments are to be inspected at least every 6 months, while low risk establishments may only be inspected every two years. If violations are found that require additional action, a follow-up inspection will occur to verify that action has been taken.

One major difference between Chapter 137F and the *2005 Food Code* is that state license and fee requirements are stated. IADIA is responsible for food establishments and food processing plants which manufacture, package, or label food products.⁷⁷ It should be noted that inspections for meat and poultry is handled by the Iowa Department of Agriculture and Land Stewardship. Chapter 137F.4 stipulates when a particular license is required. It is important to note that sale of product at wholesale to outlets not owned by a commissary owner will require processing plant licenses. The licensing fee for

⁷⁶ Iowa Department of Inspections and Appeals, "The Inspection Process" <http://dia.iowa.gov/food/controller.aspx?cmd=NavFromMenu&mode=inspection> (accessed 10/31 2011).

⁷⁷ "Food Establishments and Food Processing Plants," in *Iowa Code* (United States: Iowa Department of Inspection and Appeals, 2011), 4.

processing licenses is \$67.50 for gross sales under \$50,000, \$135.00 for gross sales of at least \$50,000 but less than \$250,000, \$202.50 for annual gross sales between \$250,000 and \$500,000 and establishments and \$337.50 for plants with annual gross sales over \$500,000.⁷⁸

Iowa Department of Agriculture and Land Stewardship -

The Iowa Department of Agriculture and Land Stewardship (IDALS) operates the Meat and Poultry Inspection Bureau (MPI), which provides meat and poultry inspection “equal to” the provisions of the federal meat and poultry inspection acts (for example, please refer to the

Meat Inspection Act). Products intended for intrastate commerce must be processed at MPI inspected facilities. MPI inspections are paid for by general tax dollars, and therefore have no fee. MPI and USDA/FSIS (Federally) inspected facilities are approved sources for establishments within the State of Iowa. Establishments in the State of Iowa purchasing meat or poultry in interstate commerce must come from federally inspected facilities. Similarly, farmers hoping to sell to

establishments outside of the state must also utilize federally inspected processing facilities. FSIS maintains a list of Meat, Poultry and Egg inspected establishments if one wishes to utilize Federal processing.⁷⁹

⁷⁸ *Ibid.*, 6-7.

⁷⁹ Iowa Department of Agriculture and Land Stewardship, "Meat & Poultry Inspection Bureau," http://www.iowaagriculture.gov/meatAndPoultry/slaughter_Processing.asp (accessed March 30 2012).

Appendix – D

Sample of Student Local Food Petitions

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Local Foods Petition

Local food provides a number of positive benefits for the University of Dubuque and the City of Dubuque. Local foods are fresher, healthier, and environmentally sustainable. By supporting local foods we are supporting our local farmers by keeping our money within the region. For these reasons, we are asking the University of Dubuque to incorporate more local foods in the dining services menu. We as students are by no means indicating that we want a drastic overhaul of our meal plans; rather we are asking the university to consider making small changes to the menu that will include more local options.

We understand that there will be barriers involved with integrating local food items; however, we do ask that gradual steps be taken as soon as possible. By signing this petition, I hereby support the University of Dubuque looking into more local food options.

<u>Print Name</u>	<u>Signature</u>
Ryan Zurbuchen	Ryan Zurbuchen
Maehland	Maehland
JOEY KICSDONK	JOEY KICSDONK
Sam Boerdet	Sam Boerdet
Kristie Harvey	Kristie Harvey
Hye Pin Yoon	Hye Pin Yoon
Bobby Shepherd	Bobby Shepherd
Jim McHugh	Jim McHugh
Arnonda Hansey	Arnonda Hansey
Manny Mendoza	M.M.
razz Leveille	razz Leveille
Alicia Miller	Alicia Miller
Jeff Gonzales	Jeff Gonzales
Shack Isidor	Shack Isidor
Melissa Brehm	Melissa Brehm
Laura Schauer	Laura Schauer
Vincent Parisi	Vincent Parisi
T. Nicky Nickolls	T. Nicky Nickolls
Laisan DeLass	Laisan DeLass
Beth Michaelis	Bethany Michaelis

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Appendix – E

Networking Event Invitation

Local Food Solutions for Dubuque Institutions

Please join Iowa State University Extension and the Iowa Initiative for Sustainable Communities to learn about institutional food purchasing and meet with institutions interested in purchasing local food products.

Thursday, March 22, 2012
6 PM – 8 PM
Rose O'Toole Room
Mary Josita Hall at Clarke University
1550 Clarke Drive
Dubuque, Iowa

Please RSVP by phone at: 515.520.9314 or email at: eatlocalfooddubuque@gmail.com. If you have questions, please contact Alicia Rosman at the phone number or email address provided above.

Local Food Solutions for Dubuque Institutions Presentation

Local Food Solutions for Dubuque Institutions

Presented by Dubuque County Extension and Outreach and the Iowa Initiative for Sustainable Communities

Jason Neises, Evan Aprison, Scott Annis, Corey Fischer, Stephanie Lientz, Alicia Presto, Erik Sampson, and Eric Wilke

March 22, 2012

Our Project

The purpose of our project is to connect the local food producers of the Driftless Area with Dubuque colleges and universities to increase the consumption of local foods.



Project Products

- Foundation for Institution-Producer Relationships
- Local Food Producer Survey
- Marketing Materials
- Action Plan
- Supporting Research
 - Best Practices
 - Food Safety Regulation

Project Progress

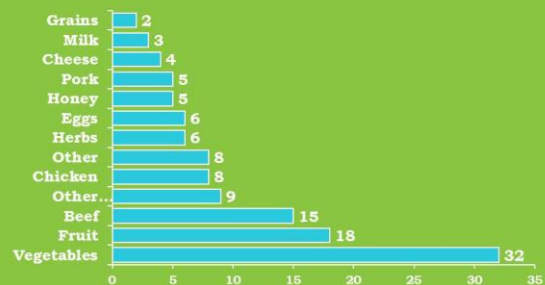
- **Foundation for Institution-Producer Relationships**
 - This event!
 - Begin building relationships between producers and consumers
 - Foster mutual understanding

Project Progress

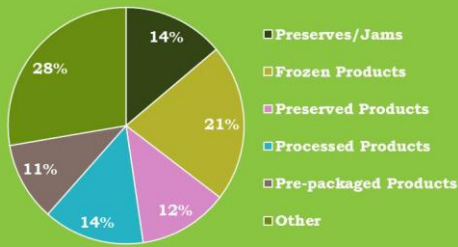
- Foundation for Institution-Producer Relationship
- **Local Food Producer Survey**
 - **Identify local food producer challenges, needs, and gauge interest in selling products to institutions**
 - **Initial Survey Results**

Initial Survey Results

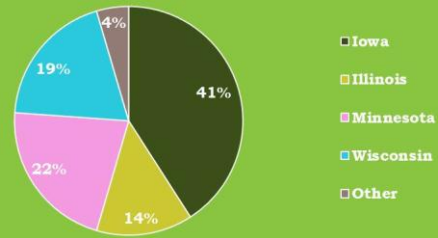
Types of Producers



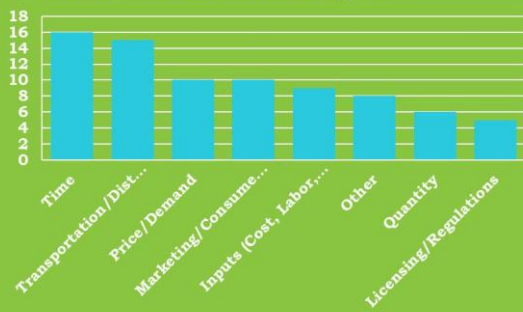
Initial Survey Results Types of Value Added Products



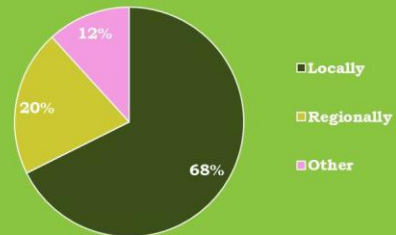
Initial Survey Results States Where Products are Sold



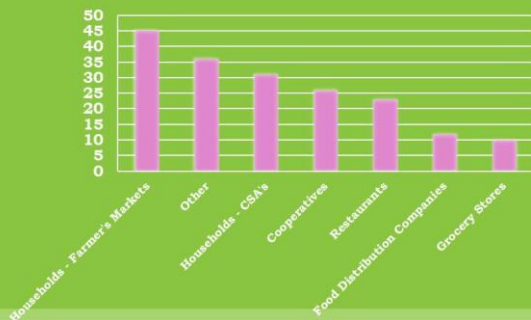
Initial Survey Results Producer Challenges



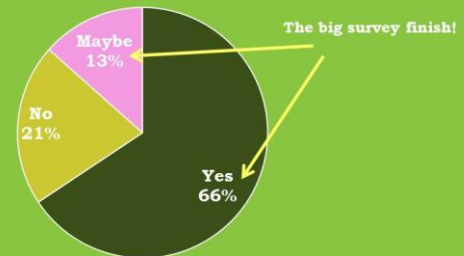
Initial Survey Results Distance Products are Sold



Initial Survey Results Consumers of Local Food Products



Initial Survey Results Producers Interested in Selling to Institutions



Project Progress

- ◉ Build Institution-Producer Relationship
- ◉ Local Food Producer Survey

◉ **Marketing Materials**

◉ **Action Plan**

◉ **Supporting Research**

- ◉ **Best Practices**
- ◉ **Food Safety Regulation**

In Progress

Student Spotlight

- ◉ CLEAN
- ◉ Clarke Culinary Club
- ◉ Web of Life
- ◉ Peace and Justice
- ◉ LEAF
- ◉ Iowa Initiative for Sustainable Communities Intern

Institution's Local Food Strategy

- ◉ Clarke University
- ◉ University of Dubuque
- ◉ Loras College

Networking

- ◉ The purpose of this event!
- ◉ Institution-Producer Meetings
 - ◉ Focus on handout (based on Best Practices)
 - ◉ Group member to assist with meeting
- ◉ Iowa State University Extension and Outreach available for discussion
- ◉ Student Involvement Discussion Session
- ◉ **Ultimately, make connections and learn from each other!**

Who's Who in the Room?

HELLO my name is Local Food Producer	Hello My name is: Institution
HELLO my name is Student or Advocate	HELLO my name is Organizer

Event Evaluation & Closing

- ⊗ Please complete an evaluation to tell us if this event was successful and how it can be improved in the future.
- ⊗ Your evaluation can be left at the entrance table.
- ⊗ Finally, **THANK YOU** for your attendance!

For More Information

Iowa Initiative for Sustainable Communities

eatlocalfooddubuque@gmail.com

Dubuque County Extension and Outreach

Jason Neises

jneises@iastate.edu

Institution Discussion Form

Local Food Solutions for Dubuque Institutions

Institution Discussion Form

1. Producer Information

Business Name:

Contact Person(s):

Contact Information:

2. Product Information

Product Offered				
Amount Available				
Season/Month Available				
Price/Unit Estimate				
Packaging				
Sample Provided?				
Other				

3. Potential Concerns

- Safety and Packaging
- Quality, Quantity, and Price
- Agreement Flexibility e.g. Contract, Letter of Intention, or Personal Agreement
- Delivery, Timing, and Payment Procedure

Producer Discussion Form

Local Food Solutions for Dubuque Institutions

Producer Discussion Form

1. Institution Information

Institution Name:

Contact Person(s):

Contact Information:

2. Product Information

Preferred Product				
Amount Preferred				
Preferred Availability				
Price/Unit Preferred				
Preferred Packaging				
Sample Provided?				
Other				

3. Potential Concerns

- Safety and Packaging
- Quality, Quantity, and Price
- Agreement Flexibility e.g. Contract, Letter of Intention, or personal agreement
- Delivery, Timing, and Payment Procedure

Networking Event Evaluation Form

Local Food Solutions for Dubuque Institutions

March 22, 2012

Evaluation Form

Name: _____ Role (Advocate, producer, etc.): _____

1. On a scale of 1 to 5 where 1 = Not at all useful and 5 = Very useful, please rate the extent to which each part of today's "meet and greet" event was useful to you (circle the number between 1 and 5). In addition, please indicate if more or less time was needed for each activity.

	1 = Not at all useful		5 = Very useful			More time	Less time
Introduction and Project Presentation	1	2	3	4	5		
Consumer and Producer Networking	1	2	3	4	5		
Extension Training and Education	1	2	3	4	5		
Overall Networking Opportunity	1	2	3	4	5		

2. How did you hear about this networking event?

3. Why is attending this event important to you and/or the group you represent?

4. How can this event be improved if it were to continue being held in the future?

5. Are there other topics you would like to learn more about at a future event?

Local Solutions for Dubuque Institutions Post-meeting Press Release

UI students hosted local foods event in Dubuque

Graduate students from the University of Iowa's School of Urban and Regional Planning hosted a networking event at Clarke University on March 22 that brought together local food producers and dining services staff from three Dubuque colleges and universities. Representatives from Clarke University, Loras College and the University of Dubuque met with over a dozen local food producers to discuss the possibility of partnerships that would integrate more local food into each institution's dining options.

Representatives of the Dubuque Food Cooperative, which intends to open this fall, also attended the event to learn about local food availability in the Dubuque area. In addition, student groups from each school in Dubuque attended the event to present petitions advocating for more local foods at their institutions. The petitions had 600 student signatures.

The networking event, Local Food Solutions for Dubuque Institutions, was a crucial step in the students' project to promote greater consumption of local food in the Dubuque area. The next step of the project will be to develop an action plan that will provide guidance for institutions to successfully integrate fresh local foods into their menus. The action plan and other project outcomes will be presented to the Dubuque City Council at a public meeting on May 8.

The students' efforts are part of the School of Urban and Regional Planning's community-based outreach program, the Iowa Initiative for Sustainable Communities, which was launched in 2009. The graduate students' project partner, Iowa State University Extension and Outreach, will assume responsibility for the project at the end of May. If you are a local food producer or institution that would like to learn more about how you can expand your local food capabilities, please contact Jason Neises with the Dubuque County Extension Office at jneises@iastate.edu or 563-583-6496.

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