

Institutional Local Food Program Action Plan and Guide



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

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The authors of this plan

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 to determine the opportunities and challenges for local collegiate institutions to begin providing locally produced products in their dining services. The students who worked on this project 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

The purpose and use of this plan

The purpose of this report is to provide the information and plan of action 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, which is extremely time-consuming and not always comprehensive.

To reduce both repetitive efforts and the misconceptions associated with a local food program (e.g. high cost, lack of safety, or time intensive) this action plan was developed. 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, which is most likely you, this action plan is broken down into chapters for each type of participant in an institutional local food program. Whether you are a dining service professional, local food producer, student, or local official, this action plan provides nearly all the information you need 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 processes 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.

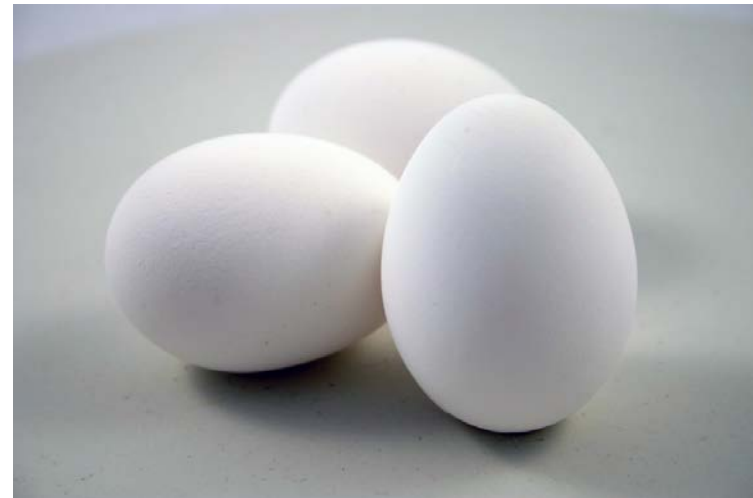
Overall, keep in mind that the process for each type of participant is not necessarily presented in the exact order they should proceed. Certain components of the process are quite logical to complete first or last but others may be better suited at a different time in the process due to how a particular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

It should be noted that Chapter 3 – Food safety and risk management is meant for both institutions and producers. This chapter is separate to avoid repetition as well as to condense all food safety and risk management practices into one chapter where anyone interested can read about this extremely important topic. Where appropriate, this chapter is recommended to institutions and producers to read so neither participant should forgo this chapter.

Also, Chapter 4 – Funding and educational resources - is meant for 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. The chapter for each type of participant will refer back to Chapter 4 so that it is not forgotten.

This action plan is based off the research completed by graduate students working for the Iowa Initiative for Sustainable Communities at the University of Iowa. These students worked directly with three colleges and universities in Dubuque, Iowa, local food producers in the Driftless Area,

Dubuque County Extension and Outreach, agriculture-related organizations, institutions with well-established local food programs, and local food system and safety professionals. For more information about the project, refer to the students' final report which will be available on the University of Iowa School of Urban and Regional Planning website under the Iowa Initiative for Sustainable Communities in June 2012. The final report will also be available on the Dubuque County Extension and Outreach in June 2012.



Institutions

Deciding to begin a local food program at your institution

There are many benefits—environmental, economic, health, and social—to be gained from serving local food at your institution. Not only will your institution and consumers benefit from this choice but your local community will as well. The food your institution prepares and serves will travel less distance and will most often be produced using less mechanized and less chemically-intensive practices contributing to the improved health of the environment and general public. The money your institution will spend on local food rather than imported food will support a food producer in your community who will re-invest their profits in the community, which supports other local businesses.

Finally, if advertised properly, the consumers of food at your institution will have a greater connection with the business, family, or individual who produces the food they eat. In addition, providing a few local food options at your institution gives your consumers the choice to contribute to a more sustainable food system in your community. For a more extensive discussion of the benefits of a strong local food system, refer to [Appendix A](#).

As food production has become more centralized in the United States, a convenient but unsustainable food system has been established. Most institutions have embraced this conventional food system due to its convenience while

ignoring its negative effects. Entrenched in the dominant type of food system, most institutions do not have the time or information needed to easily integrate local food into dining and food sales options. With effort and information, your institution can either work within the existing system using a food distributor or make incremental operational changes to work directly with local food producers.

When deciding to begin a local food program at your institution, the program should be discussed with everyone involved in the process of providing food. This means the staff involved in food budgeting, menu planning, purchasing, storage, risk management, preparation, and service should all be involved so that all potential issues may be incorporated into the decision making process. The input of your students or staff may also be invaluable since these are the people who actually consume the food your institution provides.

Keep in mind, the purpose of this action plan is to provide your institution with the information needed to create and implement a successful local food program, and the major issues that may be raised in the decision making process are included. But, the staff and consumers at your institution may end up having more specific or completely different concerns that should always be addressed before moving forward.

Determine your local food program strategy

Importance of developing a strategy

In order to create and implement a successful local food program, your institution must thoughtfully craft a program strategy. Your institution must determine not only how your program will begin but also grow in the future. First, your institution must identify the primary reason for why you will serve local food. Identifying the reason to serve will allow your institution to tailor your strategy to meet your overall intentions.

The questions below are meant to direct your institution through the process of building your local food program strategy. The content and order of these questions are based on educational institutions that have created and implemented successful local food programs. You are encouraged to work through these questions with the key people at your institution involved in food purchasing, budgeting, risk management, preparation, and service.

Building your strategy

1. Why is your institution choosing to serve local food?
2. How does your institution define “local food” (e.g. number of miles, state, region, etc.)?
3. Based on this definition, what local food is your institution currently serving?

4. Based on your institution’s desire to serve local food and your definition of “local food,” how will your local food program begin (e.g. one type of local food, one local meal per week, a certain percentage of all food served)?
5. How will your institution’s local food program grow in the future? Is this vision realistic?

Adjusting your strategy to conditions and concerns

1. Are there budget opportunities or constraints that should be considered?
2. Are there opportunities or constraints regarding your relationship with your current food distributor(s) that should be considered?
3. Does your institution have quality concerns? If yes, please specify.
4. Does your institution have safety concerns? If yes, please specify.
5. Does your institution have volume concerns? If yes, please specify.

Note that throughout the remainder of this chapter, information about how to deal with many of these common concerns is provided. It is recommended that your institution read through all pertinent chapters of this plan before proceeding with any meetings or program-related decisions. Doing so can answer many important questions and needless worries can be avoided.

Menu planning

Whether it is produce, meat, dairy or other product, producers must plan ahead to grow and/or process the needed amount of product similar to any other business. Small producers in particular may not have excess products to sell in large quantities to institutions without advance planning. In addition, produce that is in season is not only much more abundant, but also much less expensive. Even still, since locally produced food is dependent on the seasons, an institution will still need a distributor to fill in the quantity gaps at certain times of the year. Therefore, an institution that intends to purchase a large quantity of local food will likely need to plan ahead.

For example, the Solon Community School District in Solon, Iowa has found that menu planning ahead of time is one of the most important factors for having a successful local food program.¹ In late fall or winter, the meals are planned for the following fall, when students will return to school and when many produce items are in season. The chart on the following page can be used as a reference to know when certain types of produce are in season. Once the meals are planned, the food service coordinator can estimate the amount of various food products that will be needed. Conversions from pounds to acres are often done by the producer, but the conversion guide on page 11 can be used as a reference.

¹ Kelly Crossley, "Menu Planning," (lecture at the Come to the Table Local Food Summit of Producers and Purchasers event, Iowa City, IA, February 10, 2012).

Ideally, producers should be contacted in the winter, before their seeds, animals, equipment, or other necessary items need to be identified and purchased. When talking to a producer, it is important to discuss many details before making a deal, which is addressed in more detail later. As the season progresses, weather and other factors will sometimes impact the exact date products will be ready. Therefore, a follow-up conversation several weeks ahead of the specified delivery date is also a good idea so that there is still time to adjust the order with your food distributor, if necessary.

Although the exact methods may differ from one institution to the next, institutions that are as large as colleges and universities typically must plan ahead in order to receive the proper quantity of food. Thoughtful menu planning considering seasonality of products is a highly recommended method of ensuring that the proper timing and quantity of local food is produced for your institution.



Produce Seasonality Reference

	April	May	June	July	August	September	October	November
Apples								
Asparagus								
Beets								
Blackberries								
Blueberries								
Broccoli								
Cabbage								
Carrots								
Cauliflower								
Chard								
Cherries								
Corn								
Cucumbers								
Eggplant								
Garlic								
Grapes								
Green Beans								
Green Onions								
Greens								
Kale								
Lettuce								
Melon								
Peaches								
Pears								
Peas								
Peppers								
Plums								
Potatoes								
Radishes								
Raspberries								
Rhubarb								
Spinach								
Squash								
Strawberries								
Tomatoes								
Zucchini								

Farm to Kitchen Conversion Reference

Vegetable	Average Yield Per:	
	100' Row	Acre
Beans, bush	80 lbs	4000 lbs
Beans, pole	150 lbs	4000 lbs
Beans, lima	12 lbs	2500 lbs
American & Italian Beans, shell	8 lbs	1800 lbs
French Beans, Shell	8 lbs	3480 lbs
Beans, soy	20 lbs fresh, 12 lbs dry	3480 lbs
Beets	40 lbs greens, 100 lbs roots	14000 lbs
Broccoli	75 lbs.	10500 lbs
Brussels sprouts	60 lbs	16000 lbs
Cabbage	150 lbs; 60 heads	31500 lbs
Cabbage, Chinese	60 heads	35000 lbs
Carrot	100 lbs	30000 lbs
Cauliflower	90 lbs; 60 heads	12000 lbs
Corn, sweet	8 dozen ears	1200 dozen
Cucumber	120 lbs.	17500 lbs
Endive	80 heads	13,500 lbs
Greens, Mustard	100 lbs	2900 lbs
Kale/Collards	75 lbs.	16275 lbs
Kohlrabi	50 lbs	14500 lbs
Leeks	150 stalks	32550 stalks
Lettuce (full size heads, precision seeded)	50 lbs; 100 heads	27000 lbs
Melons	100 fruits	15000 lbs
Onions, bulbing	100 lbs.	38500 lbs
Onions, bunching	100 lbs.	29000 lbs
Parsnips	75 lbs.	12600 lbs
Peas, fresh	20 lbs	400 lbs
Pumpkin	300 lbs	40000 lbs
Radish, small	100 bunches	7500 lbs
Radish, Daikon	200 roots	39000 lbs
Rutabaga	150 lbs	40000 lbs
Spinach, full size	40 lbs	12500 lbs
Squash, Summer, Zucchini	200 lbs	30000 lbs
Squash, Summer, Yellow Summer	200 lbs	30000 lbs
Squash, Summer, Patty Pan/Scallop	200 lbs	30000 lbs
Squash, Winter	200 lbs	40000 lbs
Turnip	100 lbs greens; 50 lbs roots	40000 lbs
Watermelon	70 melons	18000 lbs

Local food cost considerations

Local food programs at institutions are often considered to have two main costs; time and price. Extra time is often needed to find local food to purchase. For example, a study by the Leopold Center found that restaurants that served local food spend about 35-40% more time to find local food than they did to find food from a national distributor.² Since local food producers supply smaller quantities than large distributing companies that have the capacity to provide most products demanded regardless of the season, more time is usually needed to track down local products.

Once connections are already made with a local producer, the time requirement to find local food products decreases significantly. Extra time is also often needed to prepare local food. Local food is generally fresher and less processed. While this is a major reason for its popularity, it does mean that local food may take more time to prepare. As a result, many institutions will start their local food programs slowly so time costs are not a burden.

Local food is also often labeled a luxury item and assumed to always cost more money than non-local food. Many institutions budget a certain percent extra to purchase local food items, particularly for local meat items that often cost a bit more. However, in reality, the situation is much more complicated, and research has shown that local food items are

very often *less* expensive than non-local items if purchased properly, especially fresh produce items. In June-August of 2009, prices for food baskets of many commonly purchased food items (eight types of vegetables, two types of meat, and eggs) were compared between farmers markets and retail stores in four cities in Iowa. Although each individual product was not necessarily cheaper when purchased at the farmers market, the baskets of all three categories of products ended up being less expensive per pound than the non-local food. For vegetables, purchasing one pound of each type of vegetable in the study resulted in an average cost of \$8.84 at the farmers markets and \$10.45 at the supermarkets. Likewise, local meat and eggs ended up being slightly cheaper per pound (\$0.50 and \$0.19, respectively).³

This study leads to at least two relevant suggestions for institutions purchasing local food. First, the time of year that local food is purchased is important. Local food that is in season is usually cheaper than non-local food, as the study suggests. Producers tend to set very competitive prices when products are abundant at certain times of the year. Institutions that make sure to purchase tomatoes when tomatoes are ripe, for example, will save money. For more information on seasonality of produce, please refer to the reference on page 10.

² "Local Food Connections: Economic Impact of Use in Restaurants," Iowa State University Extension, 2006, 1.

³ Rich Pirog and Nick McCann, "Is Local Food More Expensive? A Consumer Price Perspective on Local and Non-Local Foods Purchased in Iowa," (Leopold Center, 2009), 6-7.

A second important conclusion is that not all local products are cheaper. While some local products (i.e. zucchini and summer squash) were significantly cheaper than their non-local counterparts, other products (i.e. string beans, cucumbers, pork chops) were actually more expensive. The price of a specific product may vary from producer to producer and year to year. Also, remember that when working directly with a producer rather than through a distributor, you are better able to negotiate prices.

In the end, many institutions that purchase local food argue that by the end of the season, the lower price of some local food items negates the higher price of other local food items.⁴ As long as items are purchased in season, price is not a concern. The costs of local food must be considered before committing to a local food program. Yet, with smart and timely purchasing of products these costs can be minimized.



⁴ Crossley, "Menu Planning."

Food safety and risk management

Food safety is a major topic that should be considered by both 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 at risk. Precautions and practices which ensure 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.

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.⁵ Another group that provides similar resources is the On-Farm Food Safety Project.⁶ By using 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.

⁵ Agriculture Health and Safety, "Food Safety Plan for You", University of Minnesota <http://safety.cfans.umn.edu/FSP4U.html> (accessed April 1 2012).

⁶ Family Farmed website, "On-Farm Food Safety Project" <http://onfarmfoodsafety.org/> (accessed March 30 2012).

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 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.⁷ 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.

Refer to Chapter 3 – Food safety and risk management, which is based upon the authors' understanding of state and federal requirements, and does not constitute a qualified legal analysis or opinion.

⁷ U.S. Department of Agriculture, "Implementing Farm to School Activities" <http://www.fns.usda.gov/cnd/F2S/implementing/safety.htm> (accessed April 1 2012).

Types of producer certifications to consider

Research of best practices for local food programs at other institutions indicates that not all institutions with well-established local food programs require their producers to have production or handling certification to ensure the quality and safety of food products. Since quality and food safety are major concerns, some institutions have either created their own system to ensure quality and safety or require independent certification.

If your institution prefers to continue working with your current food distributor, check with your distributor see if they currently source any of their products from local food producers. In some cases, a local food producer may already meet a certain food distributor's standards, which is extremely convenient for your institution. In those cases, your institution may just need to request food products from a particular local food producer. Keep in mind, though, that when working through a distributor rather than directly with a producer or producer cooperative, the producer may yield a lower profit due to your distributor need to also make a profit.

The remainder of this section details a few certifications that are available to local producers to help make their product more marketable to institutions and distributors. Keep in mind that the certifications included are the most common within the Driftless Area and this does not serve as an exhaustive list. Many other types of producers certifications exist with varied goals—likely economic, environmental, or social—and standards for certification.

The option of no certification is also discussed since many producers do not have a specialized certification. Please note that having no certification does *not* make a producer's food products less safe or lack quality. Working with this type of producer may require a bit more time initially, but may be worth the effort in the long run.

Good Agricultural Practices (GAP) / Good Handling Practices (GHP) Certification

GAP & GHP certification is available through the USDA and ensures that all aspects of the farming/production operations are following pre-determined safety guidelines. This certification is meant to ensure food safety by making sure that products are grown, harvested, packed and shipped with minimal risk for contamination. Each farmer who is GAP certified will need to agree to have one arranged inspection and one unannounced inspection of the farm/production facility annually. While this is an excellent certification for local farmers to have, it can also be very expensive since the farmer has to pay the auditor around \$90 each hour that is spent on the farm for inspection services as well as travel time to the location. With this in mind, many local farmers who desire to have their facilities GAP certified will pool their resources and have an inspector come to several farms at one time to help bring down the cost of annual inspections.

USDA Certified Organic

Farmers who wish to apply for an Organic Certification need to develop and begin practicing an Organic System Plan (OSP). Once this plan is in place, a certifying inspector will visit the farming operation to determine if it meets the criteria set forth by the National Organic Program in order to gain approval and certification. Once a farmer has been certified, they will need to submit to annual inspections and continue to maintain and develop the Organic System Plan as needed. While this is a very marketable certification to have it is also very costly. Costs vary from farm to farm as OSP differ greatly and each requires a different amount of input. The USDA does allow those who have been certified as organic to apply for a non-competitive refund that covers either \$750 or 75% of the certification cost, whichever is lower, to help incentivize the Organic program.

Animal Welfare Approved (AWA) Certification

This is a fee-free certification that is sponsored by the Animal Welfare Institute, a non-profit organization. This certification means that farmers are taking active steps to ensure their animals are treated humanely and good husbandry practices are used. Farmers may apply for this certification and can receive both technical and marketing support on their farm and for their product after they have been approved by a qualified AWA inspector.

No Certification

The best way to determine whether or not to enter into a business relationship with a producer is to visit their business. If a producer does not have any sort of certification, this will allow you to clear up any potential food safety concerns and learn about the process of producing the product. To do your own food safety inspection, a food safety checklist was developed by Iowa State University that can be used during a site visit. This checklist is available for free through the Extension Online Store. Find the checklist at the following website:

<https://store.extension.iastate.edu/ItemDetail.aspx?ProductID=12938>.



Build and maintain a relationship with your food consumers

In the case of an educational institution, your food consumers are primarily students and staff. It is important when making decisions about your local food program to consider their needs and interests. Part of the popularity of local food is that it is empowering to be able to make healthier and more sustainable choices. Students and staff at colleges and universities may spend time in classes discussing the environmental, social, and economic benefits of local food, thus making them more interested in being involved in the institution's local food program. And besides, it is their money that will be spent on the food!

Some of the suggestions from student organizations at Loras College, University of Dubuque, and Clarke University in Dubuque, Iowa were having a small farmers' market on campus during select times of the year, selling value-added products in school general stores, having an organic food day, and having student representatives serve on a committee to help plan local food purchases. Other schools have taken advantage of their local food programs by incorporating local food into the curriculum, which is discussed in more detail later in this chapter.



How to find local food producers

The intent of this action plan is to encourage local outreach organizations such as a university outreach and extension office and local or regional government entities to host an annual networking event. At this event, your institution will be able to meet local food businesses specifically interested in selling their products to institutions. Your institution could even be involved in organizing the event, especially if you have large meeting facilities. An example of a networking event can be found in [Appendix B](#).

Other strategies for finding local food businesses that might be interested in selling their products to your institution involve a bit of research and communication. Find out about the local food-related organizations in your area because many of them maintain a directory of local food producers in the area with information about their products and best method to contact. For the institutions using this plan that are located in the Driftless Area, a directory of local food-related organizations can be found at the following website: <http://worldmap.harvard.edu/maps/localfood/DLn>.

Farmers markets are also another place to inquire whether or not a local food producer is interested. Most farmers markets also maintain a directory of their producers so your institution

could use that information to contact producers. Keep in mind, though, that producers will be busy selling their products and may not have much time to talk. The best approach would be to provide your contact information so the producer can call you when they have more time.



Build and maintain successful relationships with producers

Best practices research, which can be found in [Appendix C](#), indicates that developing a close business relationship with a producer is the best way to ensure a high quality product is being delivered to your college or university. Producers, like institutions, are looking for a reliable source to sell their products and may be able to make adjustments to accommodate your requirements if a comfortable business relationship exists.

Establishing a relationship begins with a thorough check of a producer's capabilities. You may already know what type of products you wish to purchase, but there are a number of other variables that should be looked into. For example, asking for samples of the product is highly recommended and should be expected from the producer. [Appendix D](#) provides a form that can serve as a guide for the important initial questions you should be asking producers. Issues such as seasonality, packaging, prices, safety, and certifications are included in this guide.

When discussing the amount of product your institution requires, clarify the units in which you traditionally purchase products. This could be pounds of product, packages, etc. Institutional local food program research indicates that producers can sometimes refer to the amount they produce in units that cannot be easily converted by the institution. Refer to page 11 for a useful conversion chart.

The best way to determine whether or not to move forward with a relationship with a producer is to visit their business. If a producer does not have any sort of food safety certifications it is still fine to do business with them (since many local producers are not certified because of the costs to small farmers), you may want to do your own food safety inspection. A free food safety checklist that can be used during a site visit was created by Iowa State University Extension. The checklist is available in the Extension Online store at <https://store.extension.iastate.edu/ItemDetail.aspx?ProductID=12938>.

In some circumstances, a contract or letter of intention may be needed for larger orders. While most institutions included in best practices research indicated that they do not use contracts, but some are moving toward paper agreements with their larger producers. It is recommended that recurring orders with a producer have either a contract or a letter of intention to insure mutual understanding between both parties. An example letter of intention can be found in [Appendix E](#). In the end, the use of contracts or other types of documentation need to be agreed upon between your institution and a producer so everyone is comfortable with business arrangement.

As indicated by best practices research, most institutions start small so your institution's local food program could begin with a few local food products from one or two local food producers then expand after a strong relationship had been

established. This strategy is important because building relationships with just a few producers in the beginning will allow your institution to focus on developing a process for maintaining a business relationship before expanding. Attempting to coordinate with several local food producers immediately is definitely not advised.

After you begin serving or selling a product on your campus, it is recommended that you continually monitor a producer's operations by reviewing their certification documents or re-inspecting their site on a regular basis. Maintaining the relationship also means understanding the producer's concerns with potential issues such as shortages and droughts as well as staying informed of any potential price changes.

As mentioned in the menu planning section, adjusting for seasonal items is critical. If a product that you are looking for is a seasonal item, you should ask the producer when the best time would be to place an order. If you have purchased

product from the producer before, they may be able to adjust their production amounts prior to planting their crops or ordering supplies.



Long-term planning considerations

Wholesale

To move local foods beyond a niche market, scaling up producer operations in conjunction with developing a wholesale source will increase the local food supply while providing benefits to both producers and buyers.⁸ Purchasing or selling through wholesale has both positive and negative aspects which should be weighed. Positive aspects of wholesaling include the ability to sell and buy a large quantity of product, which often suits larger institutional demand. Compared to working with individual producers, a wholesaler involves only one transaction at a time.

Another benefit of wholesale supply is that it tends to be more predictive in quantity. A benefit to producers that sell their product to a wholesaler is they can determine how much to produce and are able to sell their product in less transactions than direct sales to individual consumers. Any product that does not conform to wholesaler standards, but is still good quality, could still be sold through direct sales to individual consumers.

While a wholesaler presents less administrative work, it does carry negative impacts. The first includes the use of an intermediary in the purchase process. This can increase the

⁸ Lindsey Day-Farnsworth, "Scaling up: Meeting the demand for local food," December 2009. http://www.cias.wisc.edu/wp-content/uploads/2010/01/baldwin_web_final.pdf (accessed 3/27/2012), i-iv.

cost of products to the institution and reduce producer profit. Aside from reduced profit margins, selling to a distributor can become competitive and require differentiation of products. This includes production during the non-traditional season, growing more non-traditional products and developing unique marketing campaigns.⁹ Other obstacles a producer may face include scaling-up, packaging, and conforming to regulations. Assistance to deal with these negative aspects can be provided by the local Iowa State University and Extension and Outreach services and other sources as documented in our resource section of this paper.

A major challenge is that the local food wholesale market has not yet fully developed in the Dubuque area but some options do exist. Three ways to purchase and sell wholesale local food products include farmer cooperatives, working with an existing food distributor, or establishing a local food wholesale market. Cooperatives, discussed later in this report, allow a group of farmers the opportunity to share expenses while pooling produce for wholesale quantity. Currently, many wholesale food distributors are willing to purchase products from local food producers. In addition, a possible wholesaler in the future includes the developing Dubuque Food Cooperative, which has expressed interest in selling products wholesale in the future.

⁹ "Wholesale marketing," <http://ucce.ucdavis.edu/files/datastore/234-1316.pdf> (accessed 3/24/12), 1.

Storage

Upon delivery, local produce and other products generally have a longer shelf life. In part, this is due to the shorter distance traveled from the area in which they were harvested. However, adhering to proper food storage practices is still necessary to ensure the safety of any food purchased by an institution. These practices can also ensure that food remains fresher longer, and can prevent waste of the physical products, as well as the food dollars invested in purchasing these goods. Some common good storage practices include:

- Check the temperatures of all storage areas daily, and maintain a record of the temperature of each area, along with the time it was checked.
- Keep storage areas clean.
- Maintain refrigerated storage at a temperature at or below 40°F (internal food temperature should be 40°F).
- Maintain frozen storage at temperatures between 0°F to -10°F.
- Maintain temperatures between 50 and 70°F for dry storage areas.
- All food and supplies should be stored at least 6 inches from the floor.
- Use a First In, First Out (FIFO) method for inventory rotation. Products should be dated when received and then stored behind older products to ensure that older products are used first.
- Preventing cross-contamination is critical. Foods should be stored in a certain order in the cooler to

minimize the risk of contamination: the highest shelf is reserved for cooked food; whole meat beneath cooked food; ground meat on the shelf below whole meat; and poultry on the lowest shelf.¹⁰

Storage practices for fresh meat, produce, and other products are important to consider, especially if previous food purchases consisted primarily of canned or pre-processed goods. The U.S. Department of Health and Human Services has gathered extensive information pertaining to food safety, and these details can be accessed at www.foodsafety.gov. Additional food safety information can be obtained from the U.S. Food and Drug Administration at <http://www.fda.gov/Food/FoodSafety/default.htm>.

Preservation

Various methods of food preservation can be used to extend the life of local food products. Common preservation methods that can successfully be used by institutions are canning and drying food.

Canning preserves food through the application of heat, and is best undertaken soon after a product has been harvested. This action helps minimize the loss of nutrients and prevents the growth of mold and bacteria. Canned food may be stored

¹⁰ Kathy Brandt, "Proper Food Storage Adds to Your Bottom Line," University of Minnesota Extension, 2011. <http://www1.extension.umn.edu/food-safety/food-service-industry/prep-storage/proper-food-storage-adds-to-your-bottom-line/> (accessed March 30, 2012).

and used throughout the year. This preservation method does require the purchase of some specialized equipment. There is a time commitment involved to ensure that food will be safely preserved, although the amount of time required depends on the volume of food being canned. Some commonly canned foods include: corn; tomatoes; beans; beets; asparagus; and peppers.¹¹

Other local food products can be preserved by drying them, either using an oven on a low heat setting or a food dehydrator. Both methods of drying remove moisture from the product, allowing them to be preserved and stored for use at a later time. Dried foods can either be used in their dehydrated form, or sometimes can be reconstituted by adding water. Some commonly dried foods include: tomatoes; herbs; and fruit.¹²

Curriculum Opportunities

Local food programs at colleges and universities do not need to stop in the kitchen and cafeteria. Many colleges and universities have maximized the benefits of local food in an institution of higher learning with other local food opportunities. Farms are an essential component in our society and can provide many educational opportunities

¹¹ William Schafer, "Canning basics 1: Introduction," University of Minnesota Extension, 2010. <http://www1.extension.umn.edu/food-safety/preserving/canning/canning-basics-1/> (accessed April 1, 2012).

¹² Marilyn Herman, "Drying food," University of Minnesota Extension, 2010. <http://www1.extension.umn.edu/food-safety/preserving/drying/drying-food/> (accessed April 1, 2012).

First, classes can take advantage of the partnership with the farmer to illustrate a number of concepts and ideas. At Augustana College, in Rock Island, Illinois, for example, instructors take advantage of the institution's relationship with producers to visit operations. A two-part Geography and English class that focuses on the concept of environmental sustainability visits one of the school's local food producers on field trips to learn about producing food organically, composting waste, and many other topics that fit with the goals of the class. Although the majority of the students have grown up in the Midwest, many of these concepts are foreign to the students without being able to visit a farm. Instructors in several other disciplines may find field trips to farms or talking with the farmer useful as well.

Another opportunity to make the best use of a local food program at colleges and universities is to create internship opportunities for the students to assist producers during the summer. In survey of local food producers in the Driftless Area, several local food producers identified not having enough labor during the growing season as one of their major challenges. In addition, students at other universities with majors in botany, horticulture, landscape architecture, or others have participated in these opportunities, which are mutually-beneficial for the school and the producer.

Take advantage of funding and educational opportunities

Institutions should be aware and remain up-to-date in the many funding and educational resources available. These resources, such as grants, educational opportunities, statewide agricultural organizations, and local food groups, can provide funding support and educational resources to build a stronger local foods network in the Driftless Area. In this action plan, the funding and educational resources for producers, communities, and institutions are combined in Chapter 4 – Funding and educational resources - rather than separated into the chapters for each type of applicant. It is important for producers, communities, and institutions to be aware of all the funding and educational opportunities so there is a greater chance for collaboration.



Institutional Local Food Program Action Plan

- **Make the decision to develop a local food program**
 - Make an institutional commitment to support a local food system
 - Identify demand for local products through a survey or petition
- **Create faculty, staff, and student committee or the equivalent at your institution to discuss a local food program strategy**
 - Define “local”
 - Determine which products are most important to buy locally
 - Determine food safety, consistency, quality, and quantity concerns you may have
 - Consider food safety and risk management concerns section
 - Determine short- and long-term goals
 - Determine what food served at your institution is already local
- **Determine local food program budget**
 - Figure out how food budget will be expanded or amended
 - Determine who should be involved in the budget process
 - Determine budgetary details like acceptable price differential for local products
 - Locate potential local, state, and national funding opportunities
- **Plan your menu to begin incorporating local food**
 - Consider seasonality of products
 - Determine quantity of products needed
- **Find local food producers or distributors in the area considered “local”**
 - Contact a local food-related organization in your area to see if they have list of local food producers or information on upcoming networking events to meet local food producers
 - Attend local food-related events where local food producers may be in attendance like networking events, farmer’s markets, or producer meetings
 - Find out whether or not there is a local food producer cooperative or wholesaler in the area that can supply many different local products, especially your current food distributor if they will work with local food producers

□ **Establish a close business relationship with local food producers and distributors**

- Discuss all aspects of a potential business partnership
- Have producers provide food samples, tours of facility, or copies of certifications
- If you have an agreement with a contracted food distributor, determine if there is a process for a producer to become an approved supplier

□ **Start purchasing small amounts of local food items**

- Negotiate price details
- Work out packaging details, payment options, and delivery schedule with the producer
- Make a verbal agreement or have the producer sign letter of intent or contract, if necessary

□ **Inform your consumer about local food purchases**

- Inform consumer about the benefits of supporting local food systems

- Advertise the producer's background, practices, and location of where products are raised, grown, or processed

□ **Maintain Relationship with Producer**

- Communication with producers before, during, and after growing seasons or the time when processing occurs
- Commit to periodic on-site visits to producers' facilities or review certification documents to learn about the products and ensure food safety and quality

□ **Expand local food program as capabilities allow**

- Consider food storage and preservation methods
- Consider educational and curriculum opportunities
- Consider increasing the quantity of local food purchased over time

Producers

Choosing to sell your products to local institutions

As a local food producer, you fully understand the benefits of a strong local food system including not just the direct benefit of more profits to your business but also the environmental, economic, social benefits to your community. But what benefit is there to selling your products to institutions?

Aside from having another potential purchaser of your products, there are several other advantages. While conducting a survey of local food producers in the Driftless Areas, we asked what the main challenges of being a local food producer are. Lack of time was the most commonly listed challenge with transportation and distribution concerns as a close second. Selling to institutions can potentially help to reduce these concerns.

Institutions consume more food. If the institution is a large enough consumer, it may not be necessary to take the time to sell to a number of households once a partnership with an institution is made. Likewise, if a partnership with an institution is made, fewer trips would need to be made as opposed to a producer who travels to a variety of farmers markets to sell their products.

If selling your products to institutions sounds appealing to you, this chapter of the plan will discuss the issues that should be addressed. These include information on finding institutions with an existing local food program, building and maintaining relationships with institutions that you would like to work with, food safety matters to consider, strategies for continuing to sell to institutions on a long-term basis and general advice in terms of finding funding opportunities in the future.



Find an institution with a local food program

The intent of this action plan is to encourage local outreach organizations such as a university outreach and extension office and local government to host an annual networking event. At this event, you will be able to meet institutions specifically interested in purchasing local food. An example of a networking event can be found in [Appendix B](#).

Other strategies for finding institutions that might be interested in purchasing your products involve a bit of research and communication. Find out about the institutions in your area and whether or not they integrate local food into their dining options. This may be as simple as calling the institution and asking if they are interested. Be sure to have information about your products ready, and asking for a face-to-face meeting may be a good strategy for you to not only talk about your product but also provide literature and samples.



Build and maintain your relationship with an institution

Best practices research, which can be found in [Appendix C](#), indicates that developing a close business relationship with the institution you are working with is the best way to ensure that they continually purchase your product. Colleges and universities require greater relationship maintenance compared to an institution like a restaurant. With a restaurant, consistency in the amount of product purchased is likely to be high due to a set menu, whereas schools might adjust their menus daily.

Additionally, school purchasing will drop off at certain points in the year due to scheduled breaks. If your product is packaged to sell, schools may want to purchase your product for distribution in one of their general stores which might allow for a little more consistency when selling the product. Regardless, building a relationship with a college or university may be different from any other relationship you may have had with an institution in the past.

Besides talking about the strengths of your product, there is a lot of information sharing that has to happen when communicating with an institution. In [Appendix F](#) is a sample document that can be used when gathering institution information such as quantity needed, special requests, and recurrence.

Items such as food safety, consistency, and meeting demand are the key issues schools are concerned about. Addressing these issues from the beginning is the best approach. Keep in

mind each school has different requirements for buying certain products. For example, one college in particular might ask you if you are on the Sysco approved vendor list. During the initial communication stage, you may be asked to provide samples of your product, a tour of your facility, or a copy of any certifications you have received. If your relationship grows to a larger scale, you may also be asked to sign a contract or letter of intention depending on the items or amounts sold. It is recommended that letters of intention be used for recurring orders to ensure a mutual understanding between both parties.



Research has indicated that it can be time consuming for institutions to call a variety of producers to place orders. This is where you as a producer can take a proactive approach to keep institutions informed about your products availability. In the midst of menu planning, schools may forget what items are in season at that moment. If a product that you produce is a seasonal item, you should remind the school about the best time period to place an order. When addressing the amount of food needed, clarify the amount you can produce in units that are suitable to the institution. The best practices research indicates that producers can sometimes refer to the amount they produce in units that cannot be easily converted by the institution.

Schools should continually monitor the food quality and operations by re-inspecting your site on a yearly basis. As a producer, you should continually keep your client aware of potential opportunities or threats to the product you are producing such as drought, new regulations, or expansion of

the business. The greater the lines of communication with the institution, the greater the chances the relationship will be long-term.



Food safety and risk management

Food safety is a major topic that should be considered by both 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 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.

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.¹³ Another group that provides similar resources is the On-Farm Food Safety Project.¹⁴ By using 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.

¹³ Agriculture Health and Safety, "Food Safety Plan for You", University of Minnesota <http://safety.cfans.umn.edu/FSP4U.html> (accessed April 1 2012).

¹⁴ Familyfarmed.org, "On-Farm Food Safety Project" <http://onfarmfoodsafety.org/> (accessed March 30 2012).

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 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.¹⁵ 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.

Refer to Chapter 3 – Food safety and risk management, which is based upon the authors' understanding of state and federal requirements, and does not constitute a qualified legal analysis or opinion

¹⁵ U.S. Department of Agriculture, "Implementing Farm to School Activities" <http://www.fns.usda.gov/cnd/F2S/implementing/safety.htm> (accessed April 1 2012).

Long-term considerations for selling products to institutions

Producer Cooperative

The volume of food required by an institutional buyer often cannot be purchased from one local food producer. Institutions may need enough product to feed hundreds of people, while one producer may only meet a fraction of that demand. One way this demand and supply mismatch can be addressed is through an intermediary organization, like a cooperative.

Interviews conducted with sustainability coordinators and dining services staff at colleges and universities with existing local foods programs suggest that producer cooperatives can be beneficial to both producers and institutions.¹⁶ There are many different types of producer cooperatives which can aid producers of local food in a variety of ways; however, the type of cooperative deemed to be most helpful in maintaining connections between local producers with local institutions is the farmer marketing cooperative.

Farmer marketing cooperatives allow multiple small-scale local growers to pool resources and collectively market their goods to institutions that may require higher volumes of product.¹⁷ Like other types of cooperatives, producer cooperatives are user-owned and member controlled, and

profits are often shared between member farmers depending on their individual contributions to the cooperative. For example, a producer who provides 20 percent of the total volume of tomatoes delivered to the cooperative could receive 20 percent of the net earnings gained from the sale of that product.¹⁸ Other profit sharing methods could also be used depending on the will of the producer members. Decisions impacting the cooperative are generally made based on member votes, with each member having one vote. A board of directors can also govern the cooperative, with board members being elected by their peers: other farmer members.¹⁹

Financing for the cooperative is provided by its members through several methods, which is determined by voting members. These methods include: contributions by members through a purchase of stock or membership fee; an agreement

¹⁶ Stumme-Diers, Maren. Personal Interview. October 17, 2011.

¹⁷ Martinez, Steve, et al. *Local Food Systems: Concepts, Impacts, and Issues*, ERR 97, U.S. Department of Agriculture, Economic Research Service, May 2010, pg 23

¹⁸ Padgham, Jody. *Cooperatives: Their Role for Farm Producers*. Emerging Agricultural Markets Team, UW Cooperative Extension. 2005. <http://www.uwex.edu/ces/agmarkets/publications/documents/A3811-3.pdf>. Accessed March 20, 2012.

¹⁹ Henneman, Jamie. *Starting a Farmers' Cooperative Group*. . <http://www.hobbyfarms.com/farm-marketing-and-management/starting-farmers-cooperative-group.aspx>. Accessed March 29, 2012.

to have a portion of each members net profit withheld; or fees on units of products purchased and/or sold.²⁰

Producers can gain additional benefits from belonging to this type of cooperative, including: sharing information pertaining to the production of goods; sharing costs associated with advertising; quality control of products; sharing the cost of grower certifications, like Good Agricultural Practices (GAP) and Good Handling Practices (GHP); and providing a simplified delivery system of goods to consumers and institutions.²¹

Research suggests that the success of farm to school programs is often linked to the ability of farmer cooperatives or regional brokers to provide “one-stop shopping” for institutions and schools.²²

Institutional consumers sometimes hesitate to purchase from small-scale local growers because they are concerned that products will not be consistently available, or will not regularly meet prescribed quality standards. Institutional buyers want to ensure that they are able to receive adequate quantities of products, and that food deliveries will arrive on time.²³

Invoicing is also easier for the institution if they are purchasing food from one farmer marketing cooperative instead of buying from multiple producers.

²⁰ Rapp, Galen; and Gerald Ely. *How to Start a Cooperative*. Cooperative Information Report 7, U.S. Department of Agriculture, Rural Development. September 1996. <http://www.rurdev.usda.gov/rbs/pub/cir7/cir7rpt.htm> . Accessed March 31, 2012.

²¹ Ibid, Accessed March 29, 2012.

²² Martinez, Steve et al. *Local Food Systems: Concepts, Impacts, and Issues*, ERR 97, U.S. Department of Agriculture, Economic Research Service, May 2010, pg 24

²³ Ibid, pg. 24.

Farmer cooperatives are often established when producers in an area or region determine that there is a need; this can be related to economic challenges faced by individual producers or their desire to begin providing goods to larger markets.²⁴ In any case, creating a cooperative can be a complex undertaking, but it is eminently possible if producers have access to the appropriate resources.

For more information, the Leopold Center for Sustainable Agriculture has developed a manual for grower cooperatives based on documents obtained from GROWN Locally, a producer cooperative based out of Decorah, Iowa. The purpose of the manual is to provide a template for new cooperatives to establish standards for pre- and post- harvest practices. Following the guidelines outlined in this manual has enabled GROWN Locally’s facility to be GHP certified, as its members have passed their required internal audits.²⁵

²⁴ Rapp, Galen; and Gerald Ely. *How to Start a Cooperative*. Cooperative Information Report 7, U.S. Department of Agriculture, Rural Development. September 1996. <http://www.rurdev.usda.gov/rbs/pub/cir7/cir7rpt.htm> . Accessed March 31, 2012.

²⁵ Hamilton, Joanna. *Grower’s Manual: A Template for Grower Cooperatives*. Leopold Center for Sustainable Agriculture, October 2011. <http://www.leopold.iastate.edu/sites/default/files/pubs-and-papers/2011-10-growers-manual-template-grower-cooperatives.pdf>. Accessed March 12, 2012.

Take advantage of funding and educational opportunities

Producers should be aware and remain up-to-date in the many funding and educational resources available. These resources, such as grants, educational opportunities, statewide agricultural organizations, and local food groups, can provide funding support and educational resources to build a stronger local foods network in the Driftless Area.

In this action plan, the funding and educational resources for producers, communities, and institutions are combined in Chapter 4 – Funding and educational resources rather than separated into the chapters for each type of applicant. It is important for producers, communities, and institutions to be aware of all the funding and educational opportunities so there is a greater chance for collaboration.



Local Food Producer Action Plan

- **Find an institution with a local food program**
 - Attend producer-institution networking events
 - Research possible institutions in your area that may be interested in integrating local foods into their menus
- **Start initial communication with an institution**
 - Simply approach or contact the institution
 - Be willing to provide food samples, tours of your facility, or copies of your certifications
- **Develop a business partnership with the institution**
 - Determine food safety, consistency, packaging, and quantity expectations the institution may have
 - Determine what type of agreement will be acceptable to both parties (e.g. written contract, verbal contract, letter of intent, etc.)
- **Maintain your relationship with an institution**
 - Communicate continuously with the institution providing information about your products
- Determine whether or not the ordering schedule or any other aspect of your agreement needs revising based on experience and seasonal variations
- Consider modifying operations to accommodate institutional needs such as quantity and seasonal availability
- **Develop and maintain proper food safety and risk management practices**
 - Be well-informed of food and safety regulations as changes occur
 - To minimize food safety issues, create a food safety plan
 - Consider investigating producer cooperative opportunities to reduce potential risks
- **Be well informed of funding and educational opportunities as they become available**
 - Sign up for newsletters from local food groups, university extension services, and other agricultural organizations to receive updates and regularly visit websites with funding and educational opportunity information

Food safety and risk management

Disclaimer: Both dense and long, this section may be a challenge to work through or just easily be dismissed. Please understand, though, that food safety is extremely important and much more approachable than you might believe. This section is a simplification of the basic and most current food safety regulation and policy. Remember, though, this should not be used as legal advice.

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*

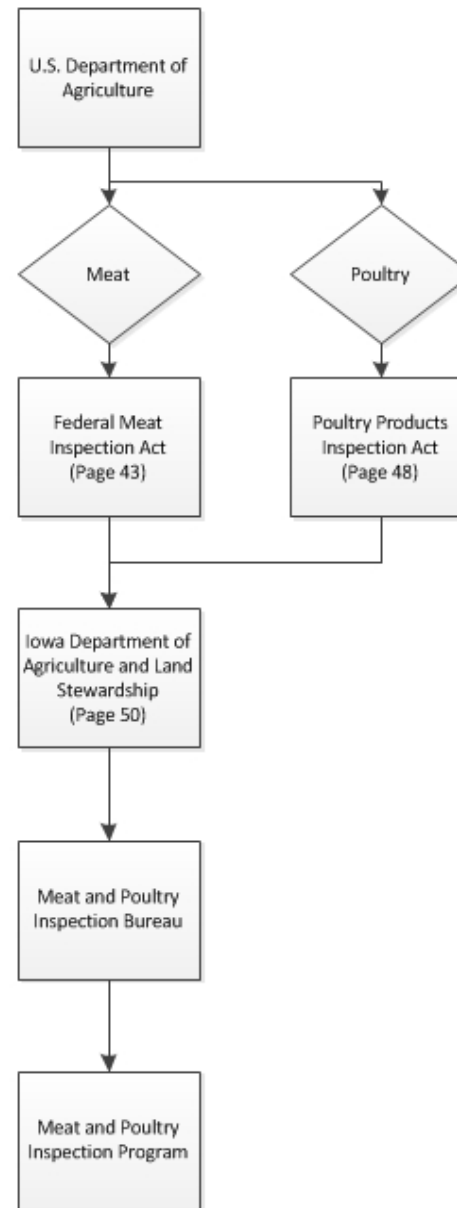
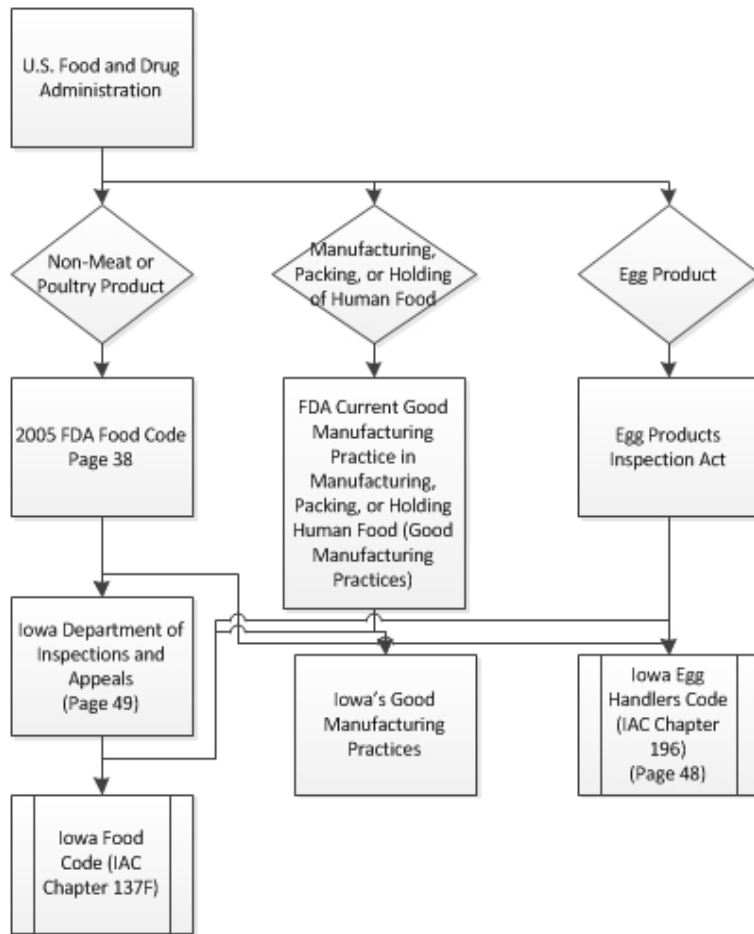
²⁶ U.S. Food and Drug Administration, "Real Progress in Food Code Adoptions," <http://www.fda.gov/Food/FoodSafety/RetailFoodProtection/FederalStateCooperativePrograms/ucm108156.htm> (accessed 10/31 2011).

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 records since January 2011.²⁷ A summary of these regulations can be found in the following pages. See the "quick reading" guide to this chapter on the following page.



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.

Quick Reading Guide



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.²⁸ Poultry products are regulated under 21 USC §451-472 (*Poultry and Poultry Product Inspection*).²⁹

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.³⁰ State meat and poultry inspection programs are

²⁸ U.S. Food and Drug Administration, "Federal Meat Inspection Act," in *U.S. Code*, ed. U.S. Department of Agriculture (2011).

²⁹ Food Safety and Inspection Service, "Poultry and Poultry Products Inspection" in *U.S. Code* (Washington D.C.).

³⁰ FDA, "Food Code Adoptions".

required to be "at least equal" to the Federal inspection requirements.³¹ 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.³²

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*³³. 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."³⁴ The *2005 Food Code* is broken into 8 chapters and covers or references all aspects of fruit, vegetable and meat safety.

³¹ Food Safety and Inspection Service, "At Least Equal to" *Guidelines for State Meat and Poultry Cooperative Inspection Programs*, 2008, 3.

³² 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).

³³ FDA "Food Code Adoptions".

³⁴ 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...”³⁵

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.³⁶ 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*.

³⁵ *Ibid.*, 8-9.

³⁶ *Ibid.*, 23.

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
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 foodborne 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.³⁷

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 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.³⁸

³⁷ *Ibid.*, 29.

³⁸ *Ibid.*, 52-54.

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, 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.³⁹

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

³⁹ *Ibid.*, 61-67.

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.⁴⁰ It is recommended that Food Establishments review Chapter 3 and make sure they understand their requirements for food handling and preparation.

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.⁴¹ 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

⁴⁰ *Ibid.*, 79.

⁴¹ *Ibid.*, 102 - 107.

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 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.⁴²

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

⁴² *Ibid.*, 146 - 151.

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 located over food preparation areas. Cleaning of the facility should occur at a time when the least amount of food is present.⁴³

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

⁴³ *Ibid.*, 170-176.

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 4-301.11.⁴⁴

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 8-302.14.⁴⁵

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

⁴⁴ *Ibid.*, 189-190.

⁴⁵ *Ibid.*, 196-198.

public documents and shall be available to disclosure to a person if requested.⁴⁶

Federal 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

⁴⁶ *Ibid.*, 207.

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.⁴⁷ 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

⁴⁷ U.S. Food and Drug Administration, "Federal Meat Inspection Act," 434-436.

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.⁴⁸

§ 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 “Inspected and condemned.”⁴⁹ 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.⁵⁰ The requirements of the chapter shall not be deemed complete 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.”⁵¹

⁴⁸ *Ibid.*, 438.

⁴⁹ *Ibid.*, 438-489.

⁵⁰ *Ibid.*, 440.

⁵¹ *Ibid.*, 441.

§ 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 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.⁵²

§ 642. Recordkeeping requirements

⁵² *Ibid.*, 451.

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.

§ 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 committees⁵³

⁵³ *Ibid.*, 452.

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.⁵⁴

§ 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 establishment⁵⁵. 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.

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.

⁵⁴ *Ibid.*, 453.

⁵⁵ *Ibid.*, 454.

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.⁵⁶

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

⁵⁶ U.S. Food and Drug Administration, *FDA Food Safety Modernization Act Frequently Asked Questions*, 2012, 3.

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.⁵⁷

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 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 far marketing. The FDA and the USDA Agricultural Marketing Service will collaborate with stakeholders to ensure that farmers are properly informed of changes.

⁵⁷ *Ibid.*, 22.

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.⁵⁸ 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.

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.⁵⁹ 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.⁶⁰ 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

⁵⁹ Iowa Department of Inspections and Appeals, "The Inspection Process" <http://dia.iowa.gov/food/controller.aspx?cmd=NavFromMenu&mode=inspection> (accessed 10/31 2011).

⁶⁰ "Food Establishments and Food Processing Plants," in *Iowa Code* (United States: Iowa Department of Inspection and Appeals, 2011), 4.

⁵⁸ *Ibid.*, 917.

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 \$500,000.⁶¹

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 Federal 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.⁶²



⁶¹ *Ibid.*, 6-7.

⁶² Iowa Department of Agriculture and Land Stewardship, "Meat & Poultry Inspection Bureau," http://www.iowaagriculture.gov/meatAndPoultry/slaughter_Processing.asp (accessed March 30 2012).

Funding and Educational Resources

Funding Opportunities

Both producers and institutions should be aware and remain up-to-date in the many funding and educational resources available to local food producers. These resources, such as grants, educational opportunities, statewide agricultural organizations, and local food groups, can provide funding support and educational resources to build a stronger local foods network in the Driftless Area.

Since grant opportunities are continuously changing, this chapter presents grants that are currently available and those that are funded and offered on an annual basis. The basics of researching and finding grants as well as the grant writing process in general is described below in order to provide a set of guidelines to assist anyone interesting in applying for funding. Each section gives information on individuals and organizations around the Driftless Area that can assist in writing and developing grant proposals.

It is important to note that there are usually several funding opportunities available. When searching for grant opportunities, it is important to determine who is eligible to receive funding. If the applicant is not eligible, it may be worth trying to find a partner organization or agency that would be eligible to receive and manage the funds. If partnering with an organization or agency, it should be one that the grantee has had a working relationship with in the past and would be comfortable working with as the source of fund delivery.

When searching for grant opportunities, the applicant should find out the following information for each grant:

- *Deadline for Proposals* – This is the final date that applications will be received. This can also help determine if there is enough time to prepare a well-written proposal.
- *Amount of Funding Available* – Grants will often give the average size of the money awarded along with how many grants are available. If there are a small number of grants awarded, it may be beneficial to apply for something similar with a higher number of awards in order to increase chances of receiving funding. It is also useful to determine if the amount of funding is enough to cover the goals of the program through determining the budget of your program.
- *The Score Sheet* – In some cases, an available grant will have a score sheet that provides the criteria which will determine how each proposal is scored. The applicant with the highest scoring grant will receive the funding so it is important that submitted grants address everything that is asked for in the score sheet. It may also be useful to determine who will be reading and scoring the grants.

- *Purpose of the Grant* – It is important to determine if your goals closely match those of the grant you wish to apply for. If you receive funding, the project proposal that was prepared in the grant application is the one that will be funded.

Included in this chapter are the current grant opportunities that relate to local foods. Many of these grants are offered by the United States Department of Agriculture (USDA), and are applicable for food producers, institutions, and communities. Raising awareness about grant programs available for farmers who are currently engaged in local food practices, or communities or institutions wishing to expand their local food programs is an important step in creating a regional food system that is productive and effective.

One particularly useful resource for producers interested in USDA Grants is the *Know Your Farmer, Know Your Food (KYF2)* program.⁶³ This program is part of the USDA and helps to provide farmers and communities assistance in determining which grant programs they would be eligible for and which would be most beneficial in terms of enhancing local food production, distribution, and awareness.

This section is organized by eligibility to make it a more purposeful reference guide. There are sections for producers, communities, and institutions and each entry contains general

information on the grant, identifies the funding agency, who is eligible to apply, the average award amount, and upcoming deadlines (when applicable). While some grants are available annually, many are short-term, one-time offers. Therefore it is important to continue searching for upcoming grants as the list provided is accurate as of May 2012. Helpful sources for searching for available funding include the *Federal Register* which announces the amounts of annually funded grant programs and also includes instructions on how to apply and who to contact for more information on the funding. For other federal and state funded grant opportunities, www.grants.gov maintains an updated list of current grants as well as information on which ones may soon announce requests for proposals.



⁶³ United States Department of Agriculture, You're your Farmer, Know Your Food, <http://www.usda.gov/wps/portal/usda/usdahome?navid=KNOWYOURFARMER> (accessed November 15, 2011).

Grants for Producers

North Central Sustainable Agriculture Research & Education Grants

SARE Research and Education Grant Program – The Sustainable Agriculture Research & Education (SARE) program provides grants geared towards farmers interested in researching or learning more about a variety of sustainable agricultural production and management techniques as well as value-added marketing and education. There are 8 to 12 of these projects funded annually and awards range from \$10,000 to \$200,000.

SARE Farmer Rancher Grant Program – This is awarded to farmers who are interested in on-site sustainable research or education projects. Individuals, partners or larger groups are eligible for the Grant and 50 projects are funded annually with varying awards that are determined by the applicants' group size: \$7,500 for individuals, \$15,000 for partners, \$22,500 for groups.⁶⁴

SARE Professional Development Grant Program – This competitive grant is offered through the North Central Sustainable Agriculture Research & Education Center. It is offered for continuing education for those working in local extension offices, conservation services and non-profit groups.

Around 5 – 10 projects are funded annually with awards ranging from \$30,000 to \$70,000.

SARE is funded by the National Institute of Food and Agriculture. Requests for proposals are published in January or February of each year with a mid-May deadline (this year it is May 16) for each of the grants listed above. Each state has a SARE representative and it is strongly recommended that those applying for grants contact their state coordinator for assistance in the proposal process. SARE coordinators are listed below and on the following page:

Iowa -

Andrew Larson

Small Farm Sustainability

Iowa State University Extension & Outreach, Ames, IA

Phone: 515.294.5875

Email: smallfarms@iastate.edu

Wisconsin -

Diane Mayerfeld

Center for Integrated Agriculture Systems

University of Wisconsin-Madison, Madison, WI

Phone: 608.262.8188

Email: dbmayerfeld@wisc.edu

⁶⁴North Central Sustainable Agriculture Research and Education, Types of Grants, <http://www.northcentralsare.org/Grants/Types-of-Grants> (accessed November 6, 2011).

Illinois -

Richard A. Weinzierl

Professor and Extension Entomologist

University of Illinois, Urbana, IL

Phone: (217) 244-2126

Email: weinzierl@illinois.edu

Minnesota -

Kate Seager

University of Minnesota, Saint Paul, MN

Phone: 612-625-8235

Email: kseager@umn.edu

North Central SARE Main Office -

120 BAE, University of Minnesota

1390 Eckles Avenue

St. Paul, MN 55108

Phone: 612-626-3113

Fax: 612-626-3132

Main Email: ncrsare@umn.edu

Specialty Crop Grants

Specialty Crop Block Grant Program (SCBGP) - This grant can be used to help increase the variety of food produced in a region. The SCBGP was first authorized in 2004 providing grants to States in order to enhance competitiveness of specialty crops such as fruits, vegetables and floriculture and allows for uses such as “buy local” marketing.⁶⁵ The grant is funded by the USDA Agricultural Marketing Service (AMS) and

⁶⁵ Martinez, 37.

awards are distributed at the state level and are used to help increase the market for specialty crops. Funds can also be used for GAP certification and processing and distributing facilities for these kinds of produce. Specific grant funding amounts and deadlines vary by state. See your state below for specific information below and on the following page.

Iowa -

A maximum of \$24,000 is awarded for projects whose duration lasts no longer than 30 months. Those wishing to receive SCBGP funding would apply through the Iowa Department of Agriculture and Land Stewardship (IADALS), which compiles applications to submit to the AMS. The 2012 deadline is May 4th and, depending on the state, grants should be sent to the following:

Mike Bevins

Iowa Department of Agriculture and Land Stewardship,
Des Moines, IA

Phone: (515) 242-5043

E-mail: mike.bevins@iowaagriculture.gov

Wisconsin -

The 2012 deadline was April 2. For further information contact:

Juli Speck

Wisconsin Dept. of Agriculture, Madison, WI

Phone: (608)224-5134

Email: juli.speck@wisconsin.gov

Illinois -

The 2012 deadline was March 15. For further information contact:

Delayne Reeves

Illinois Department of Agriculture, Springfield, IL

Phone: 217-524-9129

Email: delaine.reeves@illinois.gov

Minnesota-

Projects are capped at \$100,000 may last up to three years. The 2012 deadline was April 20. For further information contact:

David Weinand

Minnesota Dept. of Agricultur, St. Paul, MN

Phone: (651) 201-6646

Email: David.Weinand@state.mn.us



Grants for Communities/Government Agencies

Farmers' Market Promotion Program (FMPP) - FMPP is a competitive grant program funded by the USDA AMS to help local governments, agricultural cooperatives, farmers' markets, producer associations, producer networks and other eligible groups improve/expand farmers' markets, CSAs, local food markets and has \$10 million allocated for FY 2011 and FY 2012. This program can also be used for activities that increase awareness of local foods through direct marketing campaigns and other promotional programs. Business and marketing educational activities as well as the purchase of value-added products (e.g. refrigerated trucks, commercial kitchen appliances) can also be done with this Grant funding. The maximum award will not exceed \$100,000 and all applications must be submitted through www.grants.gov.⁶⁶ As of May 2012, further information on this grant, including requests for proposals and deadlines for this year's grant have not yet been made available.

Food Project Grant Program (CFP) - The Community Food Project Grant Program (CFP) is administered and funded by the USDA's National Institute of Food and Agriculture. The CFP awards grants to projects that address food insecurity issues by supporting community-based food projects in low-income communities. This also includes training, technical assistance, promoting "buy local" campaigns, and other projects which increase the capacity of local food production.⁶⁷ The program

⁶⁶ Martinez, 37.

⁶⁷ *Ibid.*, 35.

was reauthorized as a permanent program within the 2008 Farm Act, which also established the *Healthy Urban Food Enterprise Development Center* in order to provide grants for promoting the development and distribution of healthy and locally produced foods within underserved communities. Any non-profit organization is eligible to apply and awards range from \$100,000 to \$300,000 to fund programs that have durations of 1 to 3 years and requires matching funds from the applying agency. Information on the 2012 CFP application process has not yet been made available but more information can be found at: <http://www.csrees.usda.gov/funding/cfp/cfp.html> and all proposals should be submitted through www.grants.gov.

Rural Development Community Facilities Program (RDCFP) - These Grants are available to rural communities with a population of less than 20,000 that wish to expand or enhance their production and consumption of local foods. Public bodies and non-profit organizations are eligible to apply. Funding is provided by USDA Rural Development and can be used for the construction of storage facilities, structures for farmer's markets, refrigerated trucks and community greenhouses/gardens. These uses must benefit the community as whole rather than private or commercial entities. Previous funding has been used for food processing centers, community kitchens, and farmers' markets.⁶⁸

⁶⁸ *Ibid.*, 37

Rural Cooperative Development Grants (RCDG) - Intended for communities with a population of less than 50,000, these funds can be used for training new farmers, business and marketing education, and general outreach activities. This grant is geared specifically towards expanding rural businesses and cooperatives. The maximum award size is \$225,000 and is funded through by USDA Rural Development.

For the RDCFP and the RCDG each applicant must apply through their State's Rural Development Director. Currently, there has been no notice of availability of funds for either the RDCFP or the RCDG. However, for more information, the each state's RD Director is listed below:

Iowa -

William J. Menner
Des Moines, IA
Phone: (515) 284-4663

Wisconsin -

Stan Gruszynski
Stevens Point, WI
Phone: (715) 345-7600

Illinois -

Colleen Callahan
Champaign, IL
Phone: (217) 403-6200

Minnesota -

Mary Colleen Landkamer
St. Paul, MN
Phone: (651) 602-7800

Federal State Marketing Improvement Program (FSMIP) - This USDA AMS-funded program provides matching funds to eligible state agencies to assist in exploring new market opportunities for food and agricultural products, and encourage research to improve the performance of the food marketing system. Grants usually range from \$25,000 to \$135,000.⁶⁹ There was \$1.2 million available in 2012 and the application deadline was March 23. Applicants for this grant must apply through www.grants.gov.



⁶⁹ *Ibid.*, 37.

Grants for Institutions

Beginning Farmer and Rancher Development Program - This grant is funded through the USDA's National Institute for Food and Agriculture and is available to institutions and organizations that can provide outreach and support for beginning farmers. To be eligible, there must be a collaborative partnership between a public and private entity including local and state governments, community-based nongovernmental agency, and colleges and universities. Education in production and marketing of local foods and strategies for business management and legal issues can also be covered by grant funds. The maximum award is \$250,000 for three years with a 25% match in funding. It is anticipated that the 2013 funding amounts and the Request for Applications will become available during the summer of 2012 and will have a 60-day open period for accepting proposals. Applicants must apply through www.grants.gov.

Loans - Aside from grant opportunities, there are several loans available for local farmers who are currently farming and wish to scale up production or those wishing to begin farming. Many of these loans can be received through the USDA and local Farm Service Agencies and can be used to cover the purchase of land, product, and livestock as well as building construction and the establishment of a permanent crop. Specific loans are also available for the construction and maintenance of storage facilities.⁷⁰

⁷⁰ United States Department of Agriculture, Grants, Loans, and Support, http://www.usda.gov/wps/portal/usda/usdahome?navid=KYF_GRANTS (accessed November 6, 2011).



Educational Opportunities

Aside from grant opportunities, there are several institutions and organizations that provide educational services for farmers interested in expanding production in either what is grown or how much is produced throughout the Driftless Area. A local foods coordinator, local food organizations, or the ISU extension office could all be useful resources in helping to develop programs that could benefit local producers.

In addition, Drake University offers a weekend professional certificate program on developing and maintaining local food systems.⁷¹ The intended audience for the program is a local food planner or community leader, but individuals from colleges or universities, or other institutions would certainly benefit as well. More information on this can also be found below.

Homegrown Lifestyle Program - This is an ISU extension program that is offered for 12 weeks from April through June in several locations throughout Iowa. The course costs \$149 and is geared towards those interested in entering the farming field and those interested in more sustainable farming practices. This course provides information on environmental stewardship as well as growing produce and raising livestock.

⁷¹ Drake University, "Drake University introduces professional program on community food system development," <http://www.drake.edu/news/db/official/archive.php?article=7061>, (accessed November 4, 2011).

The course also has on-site visits to local farms for first-hand experience.⁷²

"Farminars" - These programs are available for free through Practical Farmers of Iowa (PFI) and are done weekly throughout the growing "off-season." These are available live online and past presentations can also be viewed as they are archived on the website. The topics range from financing and marketing to how to successfully use hoop houses and high tunnels to expand growing seasons.⁷³

Leopold Center Competitive Educational Support Program - This grant is available for any non-profit organization or educational institutions that would like to offer a workshop or informational program focused on sustainable agriculture. One-time Grants up to \$1,000 are awarded for programs that focus on one of the Leopold's main initiatives: food marketing, food systems, ecology, or policy.⁷⁴

⁷² Iowa State University Extension, Homegrown Lifestyle brochure, <http://www.extension.iastate.edu/documents/news/HomegrownLifestyleBrochure.pdf> (accessed November 8, 2011).

⁷³ Practical Farmers of Iowa, "Practical 'Farminars' of Iowa," <http://practicalfarmers.org/farminar/index.html>, (accessed November 15, 2011).

⁷⁴ Leopold Center for Sustainable Agriculture, "Competitive Educational Support Program," <http://www.leopold.iastate.edu/grants/education> (accessed November 8, 2011).

Leopold Center Resources - The Leopold Center website also has some online resources that are available to all producers. These online documents include a Grower's Manual, Washing and Handling guidelines, various scenario and market planning tools, small-market food regulations, and information for individuals interested in entering the local food economy.⁷⁵

Website Building Workshops - These workshops are coordinated through the Leopold Center and the Northeast Iowa RC&D and are designed to help local farmers create simple but effective websites to help market their products to a larger consumer-base. In 2011, these workshops were held for free across Iowa with funding provided by Google Centers Grant Fund. Continuing to offer these educational programs in the future could help producers compete in a social media market that has expanded in the past decade.

Other Educational Opportunities -

Local workshops and programs can also be developed through various entities around the Driftless Area in order to help maximize producer involvement with local foods. The ISU extension office has, in the past, held workshops around Iowa dealing with a variety of farming practices that help to expand producer's knowledge base and inform them of different methods to increase the growing season through the use of hoop houses and high tunnels. Other issues in the production of local foods such as food safety and risk management have also been offered.

Local educational institutions can offer programs to educate students about the health and economic benefits of consuming local foods. There are grants available to institutions of higher learning that allow for the research and development of increased food security and improved food systems in the local community.



⁷⁵ *Ibid.*

Students, 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 in the long-term.



Local government

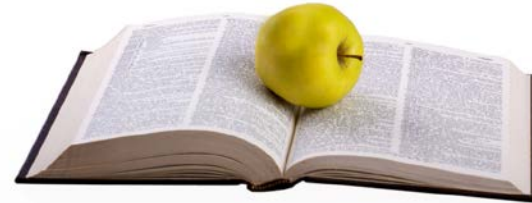
Local government can in fact encourage the sustainable practice of purchasing local foods not only at the individual consumer level, but also at the high volume institution level. In addition, local government can broadly support and even bolster the existing local food system.

Foster Networking Event – One simple way local government 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 a local outreach organization 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 this plan! 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.

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 plan can be

made available to anyone interested in institutional local food programs.



Provide 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, which provides real estate tax reductions and sales tax exemptions to grocery stores that sell a full range of local foods.⁷⁶ In addition, local government could consider

⁷⁶ 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).

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. This type of council is especially recommended because local food programs are very specialized focusing primarily on institutions and their consumers. The food system is a large and complex system that is a major component of overall sustainability that should be explored in greater depth.



Local or regional outreach organization

Outreach organizations like university extension, resource conservation and development organizations, non-profit organizations, and many others can operate with a broad, regional perspective contrasting local government. In the case of many university extension programs, especially Iowa State University Extension and Outreach, they work 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.

Continue to Provide Information – Organizations can continue to serve as a main source of information for the public, institution, local food producers or whoever is their main focus. Organizations can expand their informational offerings by making this plan available to anyone interested in institutional local food programs.

Organize Institution-Producer Networking Event – Organizations can also provide networking opportunities for institutions and producers on an annual or bi-annual basis. An event format similar to the meeting described in Appendix B is recommended. Organizations could coordinate this event with others interested like local government, other organizations, and even institutions interested in developing a local food program.



Support Local Food Coordinator in Sustaining this Project – If funding is available, local organizations could create and support a local food coordinator position that is dedicated to improving the region’s local food system by working directly with the public, institutions, and local food producers. This position could provide crucial link between producers and the consumers in the region. Also, if a food policy council exists in the area, this position could also serve as a coordinator for the council’s efforts.

Appendices

Appendix A - 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.”⁷⁷ 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 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.⁷⁸ 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

⁷⁷ Steve Martinez et al., “Local Food Systems: Concepts, Impacts, and Issues,” *USDA Economic Research Service* 97 (2010), 37.

⁷⁸ 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.

5% of overall emissions, and the packaging of food contributes about 7% of overall emissions.⁷⁹ The long-term implications of this system 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.⁸⁰ 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.⁸¹ 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

⁷⁹ 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).

⁸⁰ David Pimentel et al., "Environmental, Energetic, and Economic Comparisons of Organic and Conventional Farming Systems," *Bioscience* 55(2005): 7.

⁸¹ Mahadev Bhat et al., "Energy in Synthetic Fertilizers and Pesticides: Revisited," (Final Project Report, University of Tennessee, 1994), 1.

Mexico.⁸² Small scale, labor-focused production methods that locally produced food usually employs are much smaller 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.⁸³ 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.⁸⁴ As a result, bee populations are dwindling in the Midwest, which makes it difficult for plant

⁸² 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.

⁸³ 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).

⁸⁴ 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).

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.

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."⁸⁵ 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.⁸⁶ 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

⁸⁵ Patrica S. Muir, "Diminished Crop Diversity," <http://people.oregonstate.edu/~muirp/cropdiv.htm> (Accessed 3/25/12).

⁸⁶ 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.

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.

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.⁸⁷ 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.⁸⁸

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.⁸⁹

⁸⁷ Leopold Center for Sustainable Agriculture, "Food Facts: Results from Marketing and Food Systems Research," Ames, IA: Leopold Center, 2009), 5-6.

⁸⁸ 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.

⁸⁹ Ken Meter, interview by author, Iowa City, IA, October 27, 2011.

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 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.

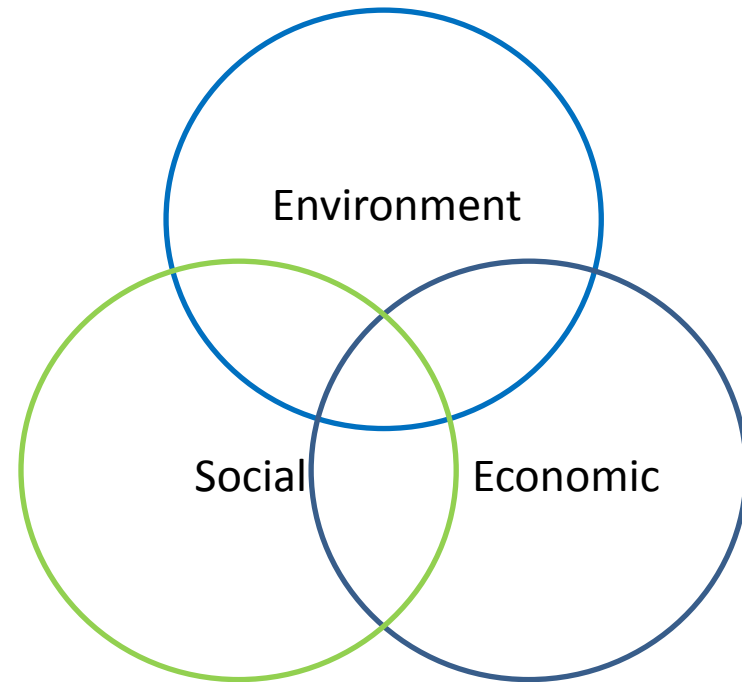
Similarly, empirical evidence from studies completed in 2005 argue that if just 25 percent of fruits and vegetables consumed in Iowa were produced in Iowa, it would result in \$140 million in increased output and 2,032 more jobs.⁹⁰ Regardless of the exact numbers, it is clear that purchasing and producing 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.

⁹⁰ 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.⁹¹ 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 they are supporting. For example, one study found that at

⁹¹ O'Hara, 26.

supermarkets, only 9 percent of customers interact with other customers, and 14 percent interact with an employee.⁹² 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.⁹³ 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

⁹² *Ibid.*, 26.

⁹³ 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.⁹⁴ 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.⁹⁵ 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.⁹⁶ 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

⁹⁴ 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.

⁹⁵ Martinez, 37.

⁹⁶ 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.⁹⁷ 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.⁹⁸ 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.



⁹⁷ Byker, 1.

⁹⁸ 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.

Appendix B – Institution-Producer Networking Event

Introduction

To directly facilitate relationship building between institutions and local food producers, the Local Food Team (LFT), a group of graduate students at the University of Iowa’s School of Urban and Regional Planning working on a local food to institutions project, 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, 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.

Event Activities

The Local Food Team began the event by sharing the overall outline of the project and current progress to date. Specific information that the LFT shared included initial analysis of the producer survey responses. 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 1 below for a breakdown of signatures by institution.

Table 1: 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



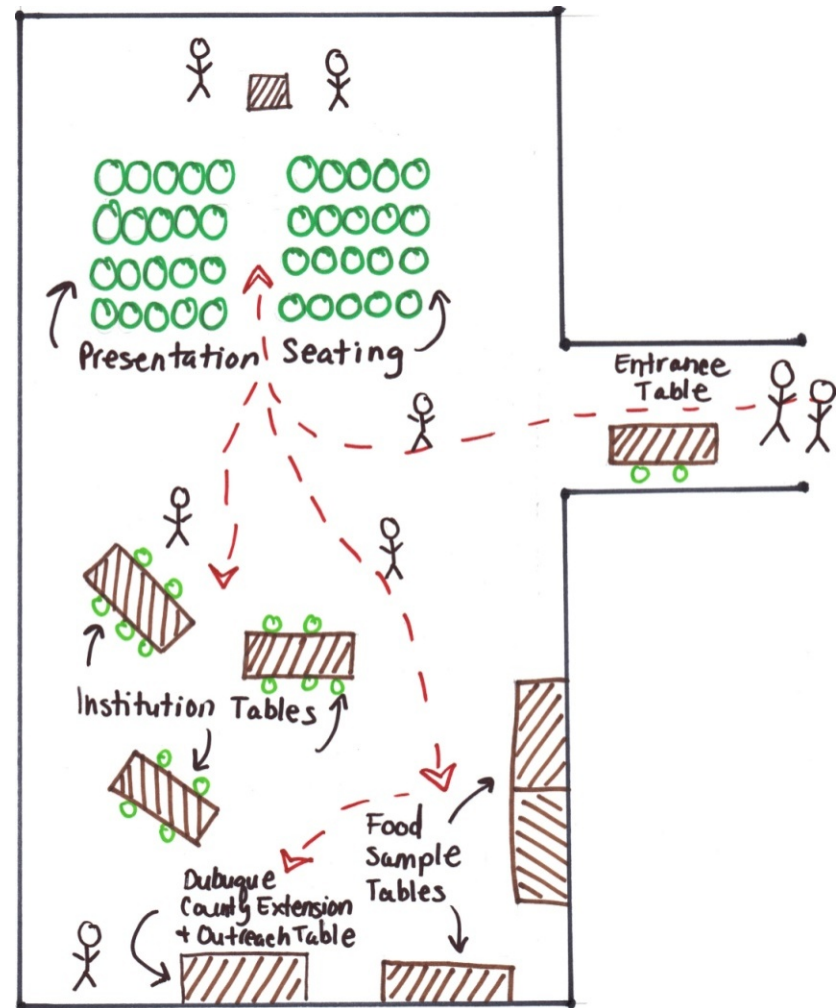
Source: Author, 2012

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 1). 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 1: 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.

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.

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.

Institution-Producer Discussions



Source: Author, 2012

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 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).

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.

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 2 for total event attendance.

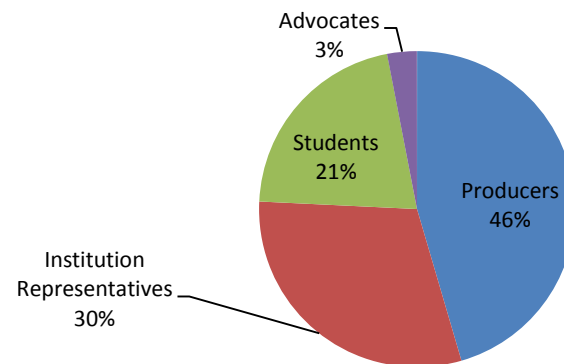
Table 2: Event Attendance

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 2. 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, 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.

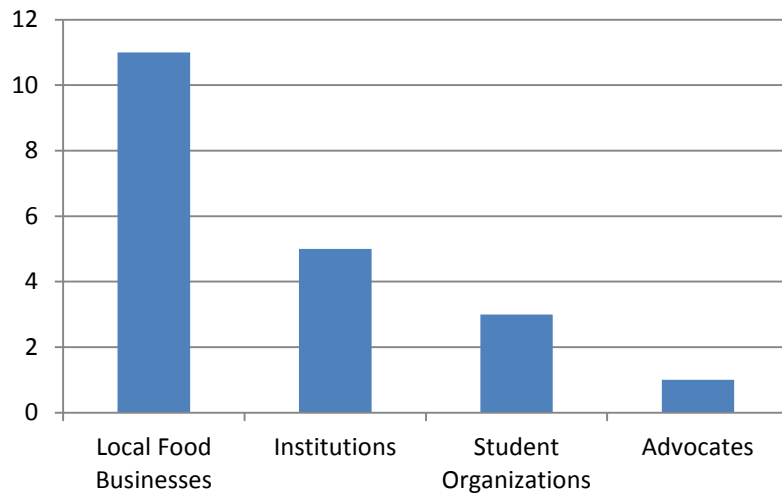
Figure 2: Breakdown of Event Participants



Source: Author, 2012

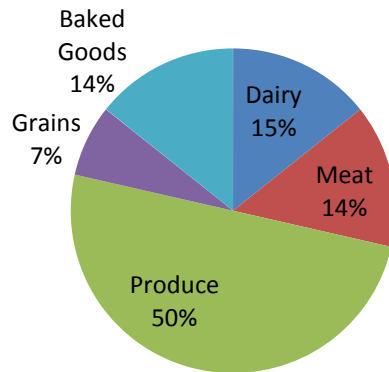
As shown in Figure 3, five different institutions and eleven different local food businesses were represented at the event. The variety of local food businesses at the event represented nearly the entire local food production spectrum as shown in Figure 4. Local food businesses that specialized in produce, 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 3: Organizations Represented at the Event



Source: Author, 2012

Figure 4: 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. 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.

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.



Appendix C - Institutional Local Food Program Best Practices

Research Methods

For this project to be successful, the Local Food Team (LFT), a group of graduate students at the University of Iowa’s School of Urban and Regional Planning working on a local food to institutions project, 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 3.



Table 3: 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.

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 risk 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.

Appendix D - 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

Appendix E – Example Letter of Intention

[Date]

_____[Title and Name]_____
_____[Address]_____

Dear _____:

This letter confirms your and our mutual intentions with respect to the potential transaction described herein between _____ (“Buyer”) and _____ (“Seller”). This document, in and of itself, does not represent an enforceable legal contract.

1. **Terms.** The principal terms of the proposed transaction would be substantially as follows:
 - (a) **Determined Product.** Producer and Institution agree to purchase ____ (amount) of ____ (list of item(s))
 - (b) **Definitive Cost Agreement.** The costs for the amount of product required will be \$ ____ . The supplier must inform the purchaser on price changes ____ days before new prices take effect. Payments will be made by the following day(s) of the month: _____
 - (c) **Agreement Period.** This agreement is valid through the period of _____ through _____ and is subject to renegotiation at the time of agreement expiration.
 - (c) **Expediency.** All parties would use all reasonable efforts to complete and sign the Purchase Agreement on or before _____ and to close the transaction as promptly as practicable thereafter.
2. **Vendor Qualifications.** Any and all vendor requirements or certifications must be obtained by the seller prior to the letter of intent being valid. The requirements or certifications needed are: _____.
3. **No Binding Obligation.** **THIS LETTER OF INTENT DOES NOT CONSTITUTE OR CREATE, AND SHALL NOT BE DEEMED TO CONSTITUTE OR CREATE, ANY LEGALLY BINDING OR ENFORCEABLE OBLIGATION ON THE PART OF EITHER PARTY TO THIS LETTER OF INTENT. NO SUCH OBLIGATION SHALL BE CREATED, EXCEPT BY THE EXECUTION AND DELIVERY OF A PURCHASE AGREEMENT CONTAINING SUCH TERMS AND CONDITIONS OF THE PROPOSED TRANSACTION AS SHALL BE AGREED UPON BY THE PARTIES, AND THEN ONLY IN ACCORDANCE WITH THE TERMS AND CONDITIONS OF SUCH PURCHASE AGREEMENT.**

If the foregoing terms and conditions are acceptable to you, please so indicate by initialing each page and signing the enclosed copy of this letter and returning it to the attention of the undersigned.

Sincerely,

[Buyer]

Name: _____

Signature: _____

ACCEPTED AND AGREED

[Seller]

Name: _____

Signature: _____

Appendix F - 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

Intentionally left blank